The Sustainable Corporation

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Abstract

The industrial sector is highlighted as the chief cause of the rapidly environmental change in the recent years. Because natural environment has strong correlation with human life and his activities to achieve well being, thereby industrial or business sector, the chief of human activities, is demanded to play as the central role in Sustainable Development. According to sustainable concept, there are three missions that have to be performed in sustainable development-sustainability in economics, environment and social. Of the three missions, environment and social are always taken in weak positions by business Actors. As the central actors in sustainable development, business actors should take the three of missions balance and together in their entire business activities. Based on same literatures and some successful stories in business practices, the author founded two important patterns that evolve recently how a corporation could be named as a sustainable corporation. First, the corporation developed partnership in eco-industrial part and the second; the corporation did its Corporate Social Responsibility.

Keywords: Sustainability, Sustainable Corporation, Sustainable Concept for Business

The world we have created today as a result of our thinking thus far, has problems which cannot be solved by thinking the way we thought when we created them.'

Albert Einstein

Introduction

At the beginning of twenty century, people begun to realize that the environmental equilibrium was facing serious problem. In the short time, there were some indications showing the imbalance condition that came repeatedly, such as floods, landslide, earthquake, and tsunami. The imbalance was also reflected by the spread of some particular diseases, such as dengue fiber, malaria, and other diseases that never did we know before, such as SARS, Avian Influenza, etc. Those were a signal that something happen in our environment that we could not control. The result was humans as the actors and also as the victims.

The issues of environmental damage continually rose on the surface, immediately after a research had founded a fact the earth show the dramatic rising of its temperature, what we called as Global Warming. Global Warming is one of the results of greenhouse effect caused by the large input of toxic gases in the atmosphere, such as carbon dioxide (80 % of total toxic gases), methane and nitrous oxide. A founding that was published by U.S. Environmental Protection Agency (2000), show most 60% of CO_2 contributor came from the activities of business and industrial sector.

This condition became more difficult by increasing of world population that was not be balanced by the distribution of prosperity, when people in the northern of the world live with property, meanwhile in the southern many people live under poverty.

In the 1980s, after the term of sustainable development was declared, a book published by The World Commission on Environment and Development in 1987: Our Common Future, became the momentum of the literature to other books that promoted sustainable concept in all life aspect. The demand to implement the sustainable concept in industrial sector was firstly promoted by Schmidheiny (1992) in his book Changing Course: A Global Business Perspective on Development and the Environment. Some approach that link between industrial sector and environmental concision occurred in form of industrial ecology by Tabs (1993), Allen by Dan Cooper (1994), Allen by (1997 and 1999), Tabs (1997), Richard and Furrerton (1997), Nooan et al. (1998), Manahan (1999) and the green industry by Ayre (1994), Richard et al (1994).Than, those concepts developed to become eco- industrial park model at the beginning of 2000s by Cohen et al. (1999), Anja (2000), Lowe (2001), and Djajadiningrat and Famiola (2004). It could not deny the idea of eco-industrial part influenced by Michael Porter's book: Competitive Advantage of Nation published in 1990 that introduce the idea of cluster industry.

At the same time, several literatures in industrial-society relationship were also developed. This interdependency of industry and society was mostly linked with Corporate Social Responsibility (CSR) concept. Based on its history, the CSR term had used since 1960's. At that time, the term of CSR is used in a lot of different ways depend on the business condition in each country, such as the issue of child labors, human right, etc. In many literatures, the term of CSR is mostly integrated with one of the implementation of ethical behavior in business practices (Boatright (2003), Crane and Matten (2003), Kotler and Lee (2005), Rudito and Famiola (2007).

Based on all literatures above, the definition of sustainability in business still connects the business activities to the one of the sustainable missions-business and environment or business and society. According to the sustainable ideas, the three sustainable missions have to see as one unity. Therefore;

the sustainability in business had to put the three missions together in its entire activities as a holistic model: that a sustainable corporation is a corporation that pays attention to the environmental and social conditions.

The aim of The Research

The aim of this research is to identify a pattern and a form how a corporation is named as sustainable corporation, by looking the three sustainable missions-in economic, environment and social aspect –as one unity that have taken together in entire of business or corporate activities.

Sustainable Concept

The term of sustainability is seen more a symbol than a scientific concept, but the term of sustainability focus on new value creation that have to implement in every activities for present and next generation. At least, it contains two key concepts (Djajadiningrat, 2004);
- The concept of 'need', in particular the essential needs of the world's poor, to which overriding priority should be given; and
- The idea of limitation imposed by the state of technology and social organization on the environment's ability to meet present and future needs.
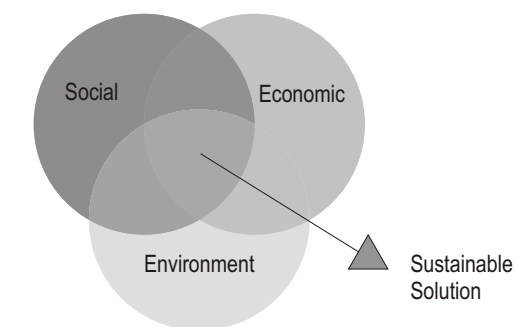

Figure 1. The mission and solution of the sustainable development

The sustainability in business requires an analysis and trial to every opportunity, risks, and other changes every time. A business leader who pays no attention to the change in economics, politics, and social, sooner or later, has brought his corporation to the big failure (Schmidheiny, 1992).

The tendency toward global era, on one side, gives large expectation to every people, and directly or indirectly influences the business sector. The improvement in education system, for example, will help to create new future leaders whose integrity and ability to create more sophisticated technologies that can enhance the quality of life of human being (Djajadiningrat, 2004).

Nevertheless we are also asked not close our eyes with every changing in natural environment. The idea of sustainable development is one of the real form asking humans to be more realistic in perceiving all

the progress in their life. Certainly, in creating the idea of sustainable development, the economic sectors will be the primary highlight and it's no doubt, the business sectors will become the chief pillar in implementing the ideas. In the other world, the business will not be able to be separated in every effort in creating the ideas of sustainable development itself. (Schmidheiny, 1992).

The Challenging of Business Sector in the Era of Sustainable Development

The requirement for the clean and distributed economic growing is most difficult problem than other challenge in concept of sustainable development. To prove this requirement certainly becomes a big assessment for business and industrial sector. It has to create new strategies to maximize it added value by reducing the utilization of natural resources and energy. This condition needs a wise leadership. (Djajadiningrat, 2004).

The sustainable development requires an open market to create new-distributed opportunities for every countries and communities. Within the open market, people will have the some opportunity to develop their selves and their community. This inescapably changing process will give direction for the future of human life. This process will create our new life style and certainly determine our way in business. Therefore; business sector have to perceive and continuously develop their ability to read the market, to tread on dominating the market and to forecast the unpredictable demand. In additional, the business sector is also demanded to have "social expertise" to determine, to understand and to estimate the changing signals of the development (Schmidheiny, 1992).

Another challenge is the environmental challenge. Before, the environmental challenge just becomes local problem, but nowadays it becomes the global threat. Therefore the future market will support every business actors to do efficiency, to reduce the utilization of un-renewable resources, and to reduce the waste or pollution. In the future all goods and services prices have to reflect the appropriately social prices (Schmidheiny, 1992).

Based on what mention above, in the future, industrial sector does not only face the challenge of the growing business, but also faces the environmental and social challenge. This situation has to be considered by all corporate leaders in calculating, planning and determining business priority and strategy.

What is Sustainable Corporation?

As mention above, the term of sustainability bring three missions-economic efficiency, social equity and ecological integrity. Nevertheless in compare with economic mission, the environment and social dimension are always taking less attention. Certainly, this condition is not appropriate with sustainable ideas itself. Therefore; as a sustainable corporation, a corporation needs to harmonize it economic mission together with a social and environmental perspective. Below will be discussed how the social and environmental dimension take together with the entire business activities.

Human Sustainability

The human sustainability is a key of sustainable term itself. The sustainability in human resource means: the increasing of quality of human life that is reflected trough the increasing of his well being-in healthy, education, and prosperity.

The human resource in context of corporation is seen as social capital. It directly or indirectly connects with the entire of corporate activities. In this case, the social capital of corporation is the corporate stakeholders-the shareholder, employee, consumer, competitor, supplier, local community and government (Rudito dan Famiola, 2007).

To build the good relation with the corporate stakeholder is seen as the importance to ensure the corporate life circle in long time. Nevertheless, to increase the quality of corporation's social capital will be more ensure the human sustainability in corporation. In this case, the employee and local community is the importantly social capita that have to be developed by corporation. Because the employee is the motor of the corporation and community are the consumer and the other parties whom directly or indirectly receive the impact of corporate activities:

Human Sustainability in work place

Handy (2003) said, now the corporate assets are increasingly found in the employee who contribute their time and talents rather than in the stockholders who temporarily contribute their money.

Gollan (1996) in Sustainability: the Corporate Challenge of the 21st Century said that the sustainability in human resource in organizations or corporations is if they can create value in their organization, thereby having the ability and capability to regenerate value and renew wealth though the application of human resource policies and practices. This will entail investment in human knowledge through continuous learning, and the application and development of such knowledge through employee participation and involvement in all organization policies.

In his model, Gallon (1996) said there are four main drivers for organization trying to achieve corporate human resource sustainability and examines their impact on employee satisfaction and commitment and on the traditional organizational objectives of productivity and profits. The four drivers are

1. Consultation and employee imvolvement
   Consultation and participation are an important requirement which ensure that the interests of all employees are considered in major changes occurring in workplace. A number of studies that developed by some expert in human resource said that the growth the programs of employee involvement and participation can directly correlation with improved organizational performance and commitment of employee in facing the change in organization (Gollan and Daris, 1997 in Dunphy et al, 2000).

2. Carier Development and Organiation Learning

    In recent US and European studied show a strong correlation between a corporate investment in its employee and stock market performance and profit. The fact from the survey show more than 1000 large and medium-size corporations which increate their budget at the some time as trimming their workplace. According to the analysis of American Management Association (AMA), this indication emerged because the training had enhanced a balance condition in work place for the employees, thereby it created new environments to respond the new business condition. AMA also found a fact that 75 per cent of corporations that increased their budget for employee development show the increasing of their profit twice, parallel with the increasing of their employee productivity than the corporation that had cut their training expenses..

3. Work and life balance

    Another consideration for organizations trying to achieve corporate sustainability is getting the balance right between work and life outside work. An interesting survey done by Universum International, found 70 per cent of respondents who was asked their opinion about their favorite workplace, said the most favorite corporation is the corporation which give the opportunity for their personal development and growth, a career, spending time with close friends and relatives, and building a family.

4. Workplace institution and system change

    In a knowledge economy, the business is built upon has changed. To survive in knowledge era, a business have to harmonize their agendas with the change, in consequently, some time some time a corporation needs to reconstruction their work system and corporate culture.

    Gollan (1996) said to create a human sustainability is needed an organizational flexibility. The flexibility means not binding or working without a clear framework. Nevertheless the work of flexibility in this case means able to adapt and to perceive with very changes in business work. Therefore, the corporation needs to prepare their employee to adapt with the change by giving the opportunities to their employees to develop their selves and ability. Therefore the employees become more creative and easily to adapt with every change in work place.

The Human Sustainability in Community

In a knowledge economy, a good business is a community with a purpose not a piece of property (Handy, 2003).

Putting the community consideration in corporate agendas had emerged since 1960s. It was marked a changing attitude towards society in the United States and towards business. The Second World War was over, the Cold War was ever present, and the War in Viet Nam fostered a good deal of opposition to official public policy and to the so-called military-industrial complex, which came in for increasing scrutiny and criticism. The Civil Right movement had caught the public imagination. The United States was becoming more and more of a dominant economic force. American-based multinational corporations were growing in size and importance. Big business was coming into its own, replacing small and medium-sized businesses in the societal image of business. The chemical industry was booming with innovation, and in its wake came environmental damage on a scale that had not previously

been possible. The spirit of protest led to the environmental movement, to the rise of consumerism, and to criticism of multinational corporations.

Corporations found themselves under public attack and criticism, responded by developing the notion of social responsibility. They started social responsibility programs and spent a good deal of money advertising their programs and how they were promoting the social good. Exactly what "social responsibility" meant varied according to the industry and corporation. But whether it was reforestation or cutting down on pollution or increasing diversity in the workforce, social responsibility was the term used to capture those activities of a corporation that were beneficial to society and usually, by implication, that made up for some unethical or anti-social activity with which the company had been charged.

If before, most of the corporate social agenda was objected for charity and philanthropy, but nowadays, it can be the one of the corporate competitive advantage. Porter and Kramer (2003) said there are many ways that can be done by the corporation how to make their social agendas become the unique way to compete in global market.

Ecological Sustainability

We are in the transition to a new economy. To make the transition more environmentally sustainable economies during this century, (1) some environmentally harmful business will decline and become sunset business, such as coal mining, oil production, nuclear power, energy-wasting motor vehicles, mining, throwaway products, clear cut-logging, paper production, conventional pesticide production, unsustainable farming, water well drilling, etc, and (2) other more environmentally sustainable, or eco-friendly, businesses will grow importance. Forward looking owners and investors in sunset business use their profits and capital to invest in emerging eco-friendly business (Miller, 2004).

According to Business and Sustainable Development (BSD), there are many environmental tools that have been developed to involve business in sustainable development, such as:
-   **Cleaner production**; a practical method for protecting human and environmental health, and for supporting the goal of sustainable development.
-   **Design for Environment (DFE)**: an umbrella term describing techniques used to incorporate an environmental component into products and services before they enter the production phase. DFE seeks to discover product innovations that will meet cost and performance objectives while reducing pollution and waste throughout the life-cycle.   The most common DFE practices used include: design for recycling, design for disassembly, design for energy efficiency, design for remanufacture, design for disposability, hazardous material minimization.
-   **Eco-efficiency**; it can be achieved through the delivery of ' ...competitively priced goods and services that satisfy human needs and bring quality of life while progressively reducing environmental impacts of goods and resource intensity throughout the entire life-cycle to a level at least in line with the Earth's estimated carrying capacity'.
-   **Energy efficiency**; a valuable near-term step along the road to sustainability. It can deliver increased productivity, a reduction in pollution, lower consumption of natural resources, and improved financial performance - all this without affecting the benefits that are derived from energy use.

- **4Rs: reduction, reuse, recycling and recovery**; Reduction, reuse and recycling are known in the industry as the 3Rs. Companies sometimes focus only on the first three in resolving waste management problems. In more innovative companies, 4Rs solutions often emerge as a result of industry benchmarking or technological breakthroughs.
- **Environmentally conscious manufacturing (ECM)** is a new way of thinking about manufacturing which focuses on the most efficient and productive use of raw materials and natural resources, and minimizes the adverse impacts on workers and the natural environment. In its most advanced form, a product's entire life cycle is considered, from design, raw material and natural resource use to end use and disposal.
- **Zero emissions**; The Zero Emission is based on improving technologies and processes to the point of maximum resource productivity and virtually no waste. This goal can be approached in a number of ways, including technological innovation, pollution prevention, cleaner production, by-product synergy, or industrial ecology. All of these are ways of eliminating wastes or turning wastes into profitable resources, while preventing harm to environmental and human health.
- **By-product synergy and ecology industrial**; The principle underlying by-product synergy is that one industry's waste stream can be used by another as a primary resource. It is a simple idea, but one which has enormous potential for reducing waste volumes and toxic emissions to air and water, as well as cutting operating costs.

To Become A Sustainable Corporation

Partnership in Eco-Industrial Park

A trend in implementing an environmentally friendly corporation continuously developed by some countries in recent decades is a partnership among the corporation which has "metabolism" linkage. This concept is known as eco-industrial park.

Djajadiningrat dan Famiola (2004) said an eco-industrial park is a community of manufacture and service business located together on a common property. Member business seek enhance environmental, economic, and social performance though collaboration in managing environmental and resource issue. The goal of an eco-industrial park is to improve the economic performance of the participating companies while minimizing their environment impacts. Components of this approach include green design of park infrastructure and plants (new or retrofitted), cleaner production, pollution prevention, energy efficiency, and inter-company partnership.

Use of the term eco-industrial park usually encompasses geographic co-location of the collaborating companies. The main differences between Eco-Industrial Parks and "usual" industrial parks are:
- Enhanced co-operation / exchange between companies, park management and local/ regional decision makers

- These actors' common striving towards a vision of industrial activities which are of utmost sustainability in terms of economic, ecological and social aspects. Virtual Eco-Industrial Park"… a region, in which industries are not necessarily co-located, but linked through exchange of waste" and collaboration at different levels" (Cohen-Rosenthal et al. 1996).

The industrial ecology as the foundation to develop Eco-industrial Park

Eco-Industrial parks are the physical embody of the industrial ecology concept. Industrial ecology is the multi-disciplinary study of industrial systems and economic activities and their fundamental link to natural system (allenby, 1999). The idea of industrial ecology is based on a straightforward analogy with natural ecology systems.

Like the natural ecosystem, the industrial system in ecology industry change from a linier system-where resources are consumed and damaging wastes dissipated into the environment-to a more closed system. Allenby has described this change as the evolution from a type I to a Type III system, as show in figure 2.
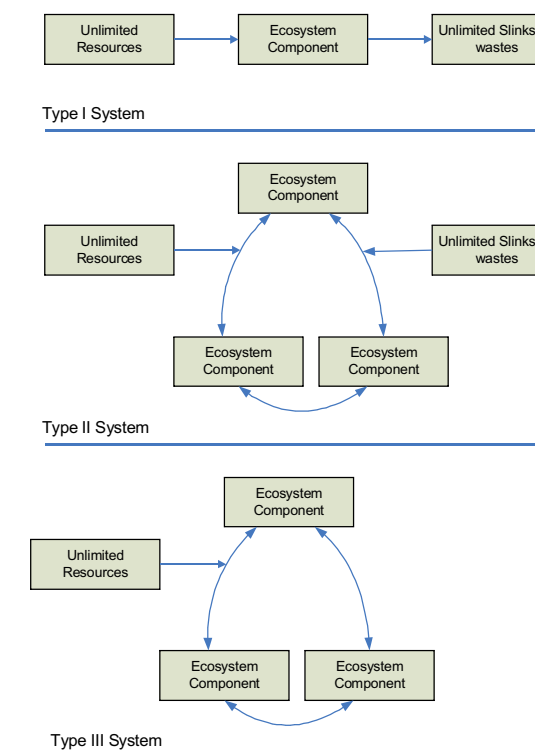

Figure 2. The evolution of industrial system (Source: Allenby, 1999)

The basic concept of industrial ecology is show in figure 3. Manufacture and processors purchase virgin materials. The care converted into more refined products for industries or sold as consumer products. Waste from manufacture/processing and consumption is re-processed for use by growers or blended with virgin material for use in manufacture, thus completing material life cycle process. At all stages waste is lost to the system. It is almost impossible to achieve what is called a "closed system" industrial ecology where all wastes and energy are recoverable. There are always inefficiencies, friction and resource/product depreciation losses thought the cycle. However, at least with this way, we can minimize the use of virgin material-especially no-renewable resources-and waste by maximizing the effort on material and energy recovery (allenby, 1999).
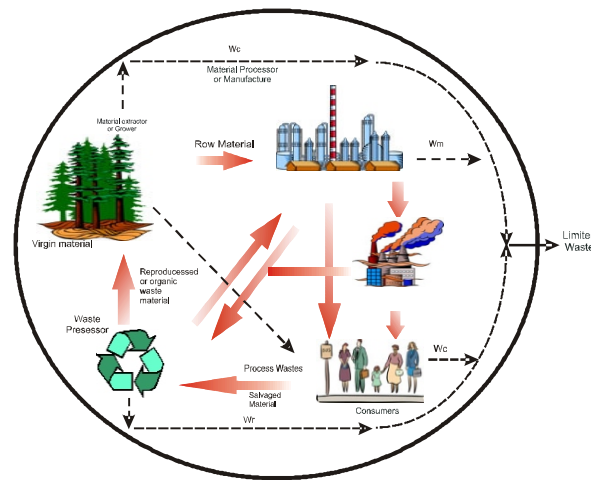

Figure 3. The Concept of Ecology Industry

There is no a pattern strategy how to change the industrial system become a circle model. The development is depended on the real condition of the industry and this is difference among the different industrial estates. The important factors have to empathize for the purpose how the created loop can create the potential environmental and economic benefit of the industrial estate through shared infrastructures, by product exchange, and environmental management system (Lowe, 2001).

Corporate Social Responsibility

As mention above, another form of sustainable implementation in business is the corporate agendas through its Corporate Social Responsibility (CSR) program. World Business Council for sustainable development describes the CSR as "business commitment to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve their quality of life".

Kotler and Lee in their book Corporate Social Responsibility: doing the most good for your company and Your Cause, there are six social initiatives done by the corporation as a form of CSR programs:
1. **Cause Promotions**: Supporting social causes through promotion
2. **Cause-related Marketing**: Making a contribution or donating a percentage of revenues to a specific cause based on product sales or usage
3. **Corporate Social Marketing**: Supporting behavior change campaigns
4. **Corporate Philanthropy**: Making direct contributions to charity or cause
5. **Community Volunteering**: Providing volunteer service in the community
6. **Socially Responsible Business Practices**: Adopting and conducting business practices and investments that support social cause.

Rudito and Famiola (2007) emphasize that the CSR agenda need to link with corporate strategy. If CSR agendas are not park of the business strategy of the corporation, the CSR performance doesn't give significant influence to entire corporate financial performance. Therefore the CSR just see as a charity program. The other results is corporation involvement will limited and weakness, it willingness to follow up and take corrective action in the case of lapses will bring the involvement back on the right track and not give significant effect to the community well being. Porter and Kramer (2003) said that to understand the link between CSR program and competitive context helps companies identify where they should focus their corporate giving and increase their involvement for community development.

According to Karter (1999) in order to the CSR program can run ethically and smoothly, there are six characteristics needed in CSR programs
- A clear business agenda; In the new paradigm, companies obviously want to make a social contribution, but a corporation has a better change of making a real difference if it knows clearly, in advance, how it's business agenda relates to specific social needs.
- Strong partners committed to change; A critical feature of the new paradigm is the presence of committed social sector organization and leaders who are already working on change. This can include public servants and community figures. Kanter (1999) states that companies need such partners to bring together diverse constituencies and to provide political legitimacy.
- Investment by both parties; The best way to ensure full commitment is to have both partners-not just the corporate but the community partner-put their resource on the line. Kanter (1999) explants that the investment needs to build a mutual partnership between two parties.
- Rootedness in user community; The Innovation have to be facilitated when developers learn directly from user experience.
- Links to other community organizations; Kanter (1999) suggest that to make the projects success, it's important to involve other experts in the broader community of projects.
- A long-term commitment to sustain and replicate the results; The new projects are mostly uncertainty - trying something that has never been done before in particular setting-, means that initial project plans are best guessed, not firm forecasts. Therefore; a long-term commitment is needed to all parties involved in the projects.

Conclusion

To become as sustainable corporation needs the strong commitment of the corporate leaders to harmonize the entire business activities with the ideas of sustainability. There were many way that had been developed to support a business becoming more sustainable. Nevertheless in many literatures the linkage of business activities with the sustainable ideas was still integrated the business economic mission with only one of other sustainable missions - business and environment or business and social. In this paper the author tried to combine the both concepts, to find the pattern and model of sustainable corporation. The author found two important patterns how a corporation could be named as a sustainable corporation. First, the corporation developed partnership in eco-industrial part. Second, the corporation did its Corporate Social Responsibility.

We realize that sustainable era is density of change, therefore it need a wise leadership. The corporate leaders have to have the courage to take the risks and to do improvement both in themselves and their organization. They also keep thinking how to find ways to make their business continuing survive and wining the market. Of cause, these efforts are integrated with their way to develop the working culture in their business. The working culture is the important point in changing organization. Therefore, it is importance to develop researches that discuss how the corporation develops its strategy to be more sustainable, and to examine how flexible the culture to adapted with the changes in this knowledge era.

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