

Marketing and business strategy in the environmentally sustainable business

Unit 3103

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Executive Summary

Crises of the global environment drew many companies' attentions to the environmentally sustainable business. The social responsibility, especially the environmental sustainability, is a very important factor in remaining prosperous in the 21st century. However the traditional business strategy tends to stress only profit making and puts little emphasis on fulfilling the responsibility to sustain the environment. Pursuit of environmental sustainability and the creation of the shareholders' value will require real imagination and a fresh approach to business strategies. I propose to establish a new strategic approach to achieve environmental sustainability and stakeholders' value at the same time.

1. Today's business strategy

It is surprising to see the overwhelming kinds of products displayed in the supermarkets in the developed countries. Sometimes I wonder if we had ever needed to have such huge numbers of products with higher quality than is necessary. I would say "No" by my gut feeling. There is a wide range of products, maybe more than necessary in the developed countries, maybe much more than necessary, which may end up putting an unnecessary and unwanted burden on the environment and the consumption of natural resources. Companies attempt to meet the customers' wants and needs. Companies try to satisfy customers by supplying products superior in quality and performance and try to be the most cost competitive to increase their profitability. Marketing and business strategies are taught sometimes as an art and sometimes as the theory of satisfying the customers' wants and needs. Without good marketing and business strategies, companies will never succeed. However the good old days are over, and we need to care for the environment today. We need to preserve the livable environment for the generations to come. Stuart L. Hart says that in this sense we are at the crossroads of capitalism¹.

1-2 What people want to have and what has been sacrificed

Stuart L. Hart writes in his recently published book, "Capitalism at the crossroads¹", *The United States has emerged as the world's only super power, championing a message of liberty and democracy rather than conquest and subjugation. Multinational corporations, international institutions, and global civil society have exploded onto the world stage,*

bringing with them stage-of-the-art technology, advanced business practices, and a new accountability.

The American lifestyle has been a symbol of the success of capitalism. Most people of the capitalist world envy the lifestyle of the Americans, who live in big houses and own several big cars at home and use as much gasoline as they want, and eat luxurious steaks in fully air conditioned rooms. The energy consumption per capita in the USA is the world's largest, at 338 billion BTU², and this is two times higher than Japan³. Most Americans, and people throughout the world, still believe that the quality of people's lives in the USA is the very best in the world, so everybody wants to go to the USA. Yes, that is maybe true. In fact, in many countries of the world there are still problems of hunger, poor education, corruption and a high ratio of unemployment. If these are compared to the USA, the USA is heaven. Thus it is natural for human beings to say that other countries want to be like the USA and all people want to have the same quality of life as the Americans. Emerging countries such as China are increasing their economic power and the people want to have the quality of life which the Americans have now. They may not want to copy the ideology nor the politics of the Americans, but they definitely want to copy the luxurious lifestyle of the Americans.

The Americans, on the other hand, (not only the Americans but also most of the knowledgeable persons in the world) are afraid that if people in China were to live the same lifestyle as the Americans, the Chinese would use up most of the fossil energy on the earth⁴. What the Americans have today is what the Chinese want to have tomorrow: a quality of life with abundant substances and energy, although it is a well known fact that the oil reserves will be exhausted within twenty to forty years. Today, the price of the oil is sky rocketing and BRIC (Brazil, Russia, India and China) emerged as big consumers. The art and theories of marketing and business strategies, which brought a comfortable life to the capitalists represented by the Americans, are adopted anywhere people want to have the same things as the Americans. No matter what ideology and politics they may have, marketing and business strategy in the capitalist economies work anywhere in the world today. This is the result of the victory of capitalism over communism and other economic structures. The problem of capitalism is that the market economy failed to distribute the environmental social costs equitably and also failed to preserve the natural environment.

1-3 What does the marketing concept hold?

Marketing is one of the business strategies which affect the product design. The marketing concept holds that the key to achieving organizational goals consists of the company being more effective than competitors in creating, delivering, and communicating customer value to its chosen target customers. I am Japanese and I sometimes wonder why snack companies in Japan generally use so much packaging for

their products. There may be many reasons for this, however I would say that it is because most Japanese customers prefer beautifully and safely packed and neatly displayed snacks. In the old days, snacks were sold by weight and the only packaging was that of a simple paper bag, or even old newspapers. Snacks in Japan today are sold in compound materials for packaging, including aluminum coated papers and plastics, which will never be recovered nor recycled but will end up as solid waste. Waste products accumulate, filling landfill space and reducing scarce natural resources. These products generate toxic substances when they are burnt. Customers want products which are not well designed for the environmental conservation, no matter what they know about its environmental burden. Companies try to respond to the needs of the customers with excessive quality and services and designs, which would attract more attention from the customers. This is what the art and theories of marketing have taught, however this does not help to sustain the world environment. In Japan, the Law for Promotion of Social Collection and Recycling of Containers and Packaging was promulgated in 2000, however compliance to the regulation is not yet perfect. Compliance to the regulation requires the development of an economic social system to recycle and reuse packaging materials combined with efforts to reduce unnecessary packaging.

Although companies need to establish better marketing strategies and better technologies to reduce the packaging material that would not be enough. The establishment of a social system which can reuse and recycle packaging materials is a necessary component of the social infrastructure.

1-3 What kind of new marketing and business strategies should be developed?

1-3-1 Historical paradigms in marketing and business strategy

Capitalism has changed its paradigm to meet the needs of the era. Stuart L. Hart explains the transformation of the paradigm in capitalism using the following illustration, Figure 1-3-1.

1970-1980s Paradigm: Great trade-off illusion

In the past, pollution was assumed to be part of industrialization (and still is in the developing countries today), thus command-and-control regulation seemed a necessary and appropriate counter to the prevailing industrial mindset. In this sense companies' mindset resulted in what Stuart L. Hart called "Great Trade-off illusion", the belief that

firms must sacrifice financial performance to meet their social obligations. In this period the academics recognized the necessity of creating a market theory which was socially responsible. Social marketing was one of these movements. According to marketing guru Phillip Kotler, social marketing holds that:

Their organization's task is to determine the needs, wants, and interests of target markets and to deliver the desired satisfactions more effectively and efficiently than competitors in a way that preserves or enhances the consumers' and the societies' well being⁴.

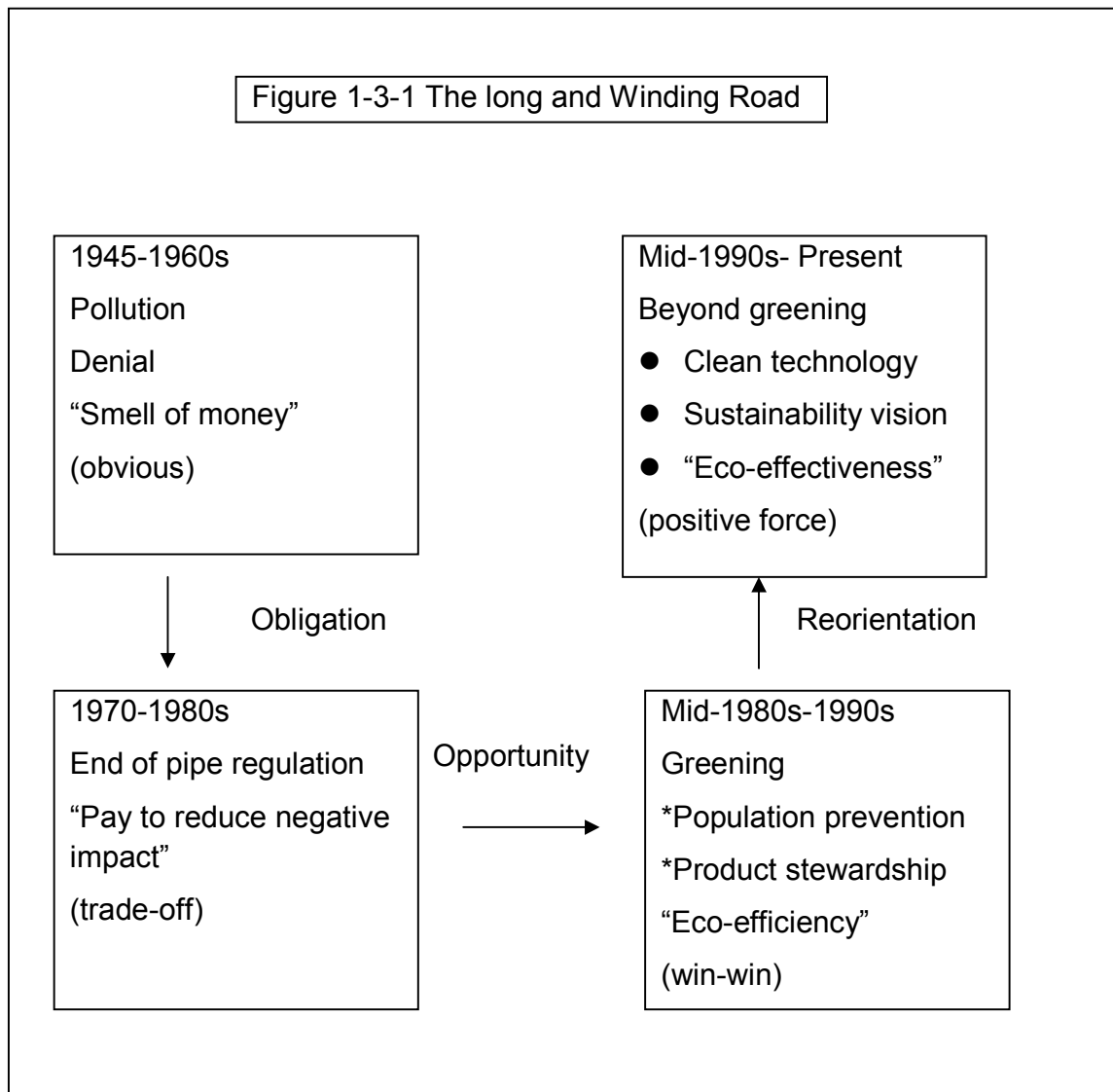
The discipline was invented in the 1970s and given the name of social marketing in the 1970s, when Philip Kotler and Gerald Zaltman realized that the same marketing principles that were being used to sell products to consumers could be used to "sell" ideas, attitudes and behaviors. Kotler and Andreasen define 'social marketing' as differing from other areas of marketing only with respect to the objectives of the marketer and his or her organization. Social marketing seeks to influence social behaviors not to benefit the marketer, but to benefit the target audience and the general society⁵. When the environment is dealt with separately from the other social responsibilities, it is called as "Green Marketing".

1980s -1990 Paradigm: Greening (Continuous improvement)

It had become clear that preventing pollution and other adverse effects was usually a much cheaper and more effective approach than trying to clean up the waste and pollution afterwards. Incremental and continuous improvement in quality and environmental sustainability became standard procedure to reinforce the competitiveness of companies and to comply with the regulations. At the same period, green consuming became popular, and companies became aware of green consumers as a major target market.

1990-current Paradigm: Beyond Greening (Creative destruction)

The challenge goes beyond the limitation of greening by pursuing new technologies and reaching out to bring the benefits of capitalism to the entire human community of 6.5 billion people (rather than just the 800 million at the top of the economic pyramids).



Referred from p. 16, Stuart L. Hart, CAPITALISM AT THE CROSSROADS, 2005, Wharton School Publishing, 2000

1-3-2 Paradigm shift to “beyond the greening”

Capitalism created the shift to globalization and the creators have been mainly Western Europe, the USA and Japan. In capitalism, the money economy has its own point of view, value and paradigm. The problem of the current environment started from the era of the industrial revolution, which coincided with the spread of the money economy and the western society lifestyle. Thus the theory and the practice of marketing management in

capitalism hold the paradigm from the old days. In explaining the paradigm, John F. Wisk⁶ assigned several key words; continuous unbridled growth; conquer nature; reap resources; materialism and reductionism. As we have seen that the old marketing theory is no more effective for sustainability, so does Wisk. He explains the old marketing theory as “marketing to fill needs” and argues that it should be changed to “marketing to sustain”. He explains the new world paradigm using sustainable, green economics; biophilia (affinity for nature); personalism and Holism (Table1-3-2).

Table 1-3-2 Old and New Paradigm

Old paradigm	New paradigm
Continuous, unbridled growth	Sustainable, green economy
Conquer nature, reap resources	Biophilia (affinity for nature)
Environmental compliance	Eco-auditing
Marketing to fill needs	Marketing to sustain life
Materialism	Personalism
Industrial production	Industrial ecology
Design for obsolescence disposal	Design for environment
Cost accounting (profit/loss statements)	Full cost accounting (including the social costs)
Departmentalism, reductionism	Holism

Source: F. Wasik, *Green Marketing*, reprinted in 1997, Blackwell Publishers Inc, Printed in the USA, ISBN 1-55785-634-1(pbk.)

2. New Challenges and new paradigm

The global economy is composed of three different overlapping economies: the money economy, the traditional economy, and nature's economy¹. The money economy consists of a developed market and an emerging market which has about two billion people living in the cities of the developed countries. The traditional economy is represented by the villagers living in the developing countries. The natural economy consists of the natural systems and resources that support the money and traditional economies. In fact, the money and the traditional economy are actually embedded in the natural economy because the former could not exist without the latter. The environmental problem can be explained as the phenomenon of the destruction of the natural economy by the money and the traditional economies. The environmental problem created serious sustainability problems and business opportunities at the same time. Historically, the capitalist leaders (i.e. the money economy) focus almost exclusively on the developed market and customers who have achieved a certain level of affluence. A global supply chain and well developed infrastructure allow for the rapid production and distribution of products and services, and consumption occurs at high levels. On the other hand, in the traditional economy which consists of more than two-thirds of humanity, more than four billion people have been adversely affected by globalization, ignored by the world of commerce, and victimized by corruption. To seek opportunities to provide products and services that will solve the world's social and environmental problems, companies need to understand the characteristics of two distinct economies well. Companies have to analyze the characteristics of these two markets and develop superior business strategies to fit the needs and requirements of each market the best. I have classified the business strategies of the environmentally sustainable business into four regions, using a matrix of two dimensions; the money economy/ the traditional economy and Incremental technological progress/ innovative technological progress. By doing this, I can define four distinctive business strategies (Figure- 2).

- “Incremental Greening”
Continuous incremental progress in the money economy
- “Greening penetration”
Penetrate into the traditional market by bringing existing technology to the traditional market
- “Greening innovation”
Develop an innovative business model (technology) in the money market.
- “Greening base expansion”

Develop an innovative business model (technology) in the traditional market.

Figure 2 Four distinctive marketing and business strategies in the environmentally sustainable business

Greening strategy Matrix (by Hiroshi Fukushi)	Incremental technological progress	Innovative technological progress
Money market (Developed & emerging economy)	Incremental Greening	Greening Innovation
	Greening in mature and developing money market	Innovation in mature and developing money market
Traditional economy	Greening Penetration	Greening base expansion
	Greening in the traditional market using existing products and services	Innovation in the traditional economy

3 Challenges of “Greening Innovation” and “Greening base expansion”

Unlike “Incremental Greening” and “Greening Penetration”, which work through the existing supply chain to effect incremental improvement in the current business system, “Greening Innovation” and “Greening base expansion” focus on innovative technologies/ business models and new markets/unconventional partners and stakeholders. Such strategies are disruptive to current industry structure and raise the possibility of significant repositioning, which give new players chances to establish leading positions. I do not deny the necessity of “Greening”; it is always necessary, however the magnitude of the problem we face now seems to have exceeded the level of tolerance: only “Greening” can maintain the sustainability of the world. Without a radical transformation of the structure of many industries, which necessitates a new paradigm shift, the global sustainability will be ruined. We should see global sustainability as a major disruptive force, with the power to radically transform the structure of many

industries, which necessitates a new paradigm shift¹. “Greening” is always necessary, however there has been little but incremental progress. There is always tough competition in the developed market, and companies need a competitive edge to win the game. The necessity to improve the environment motivates companies to create innovative technologies or business models which contribute to the sustainability of today’s society.

3-1 Marketing and business strategies for “Greening innovation” in the money economy

3-1-1 Differentiation by “Greening innovation”

I define “Greening innovation” as meaning to establish innovative business models (technology) in the existing market. From the initial concept of marketing business strategy, differentiation has been the key to success. In a developed market, competition is intense so differentiating products and services to win the competition is the major concern. If companies can establish innovative business models to supply differentiated products and services to improve the sustainability of the environment, they will have a big competitive advantage. In older days, companies looked at the environmental issue from a passive perspective:

- The environmental problem is a risk but it is not an opportunity;
- Combating environmental problems costs money;
- The environmental problems can be separated from the business strategy;
- Environmental protection is an overhead function; and
- Managers in the environmental division are staff specialists.

However, companies should think of the environment as the major business strategy and the source of their differentiation:

- Think of the environmental problem as a business opportunity;
- Reduce costs and the burden on the environment at the same time by establishing innovative business models and technology.⁷
- Be a part of the necessary infrastructure of the society by offering innovative and differentiated products and services for preserving the sustainable environment.

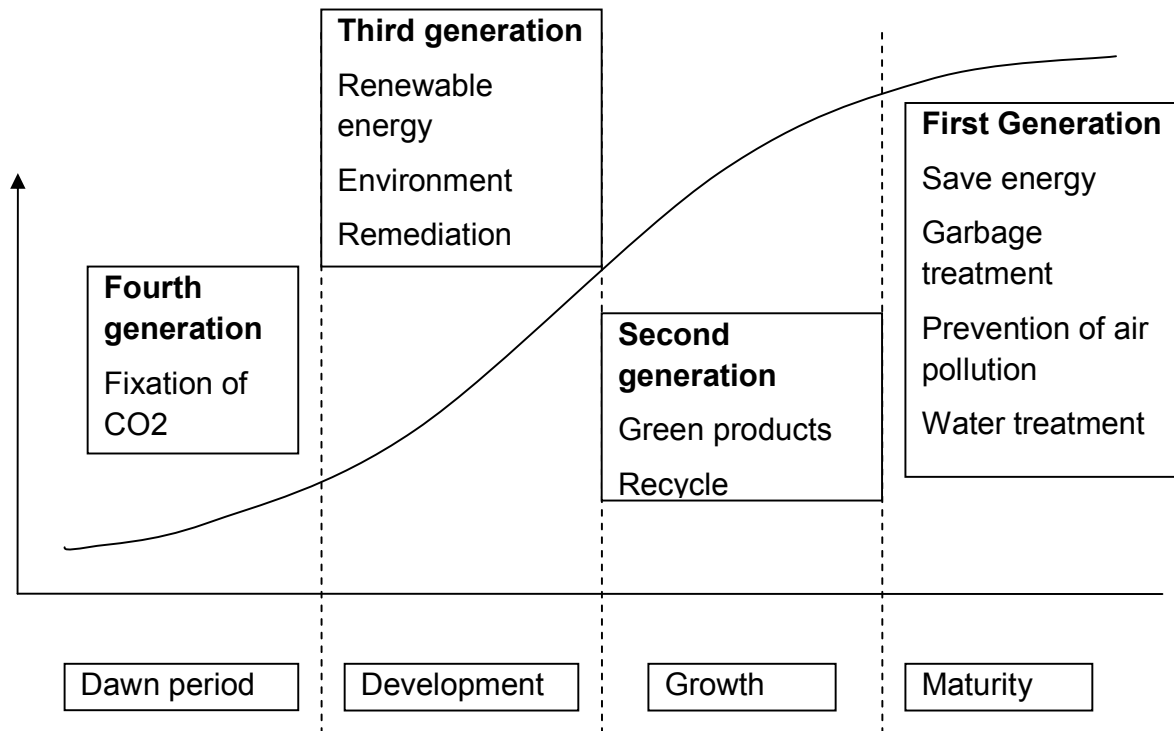
3-1-2 Customer retention by “Green innovation”

The market at the top layer of the money economy is already saturated so the repeat sales to the existing customers are very important to the companies.

How can companies attract loyal customers, in the money market, with an environmentally sustainable business? The social system is the key factor to the answer to this question. According to Arthur D. Little⁸ (management consulting company), there are four generations of environmental business (Figure 3-1-2):

- The first generation is to prevent further pollution by saving energy, by treating water and garbage and by preventing air pollution.
- The second generation is greening efforts by recycling and green purchasing.
- The third generation is the creation of renewable energy sources and remediation of the polluted environment such as water and soil: and
- The fourth generation is the remediation of the global warming problem; the reduction of the emission of the carbon dioxide to the atmosphere by fixation (i.e. by developing liquefaction, absorption or solidification technology).

Figure 3-1-2 Technology generations



Source : Arthur D. Little Growth Strategy in Environmental Business, Diamond Press, 1997, pp17.

Innovations in technology and business models are always necessary to differentiate a company from its competitors, however in the case of an environmentally sustainable business, differentiation alone is not sufficient to retain the customers. Companies need to consider adaptation of innovative technologies and business models to the social system to retain the customers. It is estimated that there is a large total market for future environmental businesses, *however this does not mean that the customers and the society are ready to accept a large increase in the social cost for the environment preservation.*

Companies try to develop new technology and business models in the quest for opportunities to comply with the need for environmental preservation, however the costs for the technology and the business models have to be reasonable to be built into the social system. For example, used automobile tires became a big environmental problem in the past. Initially, intermediate dealers and the final land fillers dumped used tires at the land fills, but this led to space problems and the costs were high. Finally big steel and cement manufacturers developed a combustion system to use the old tires as an energy source, which fitted the social structure better in the sense that it saved land fill space and

reduced the processing costs. In Illinois, USA, Illinois Environmental Protection Agency's tire cleanup contractors, including Illinois Correctional Industries (operating under an intergovernmental agreement), process and deliver the tires to power plants that blend the tires with coal to produce electricity⁹. This business model of combusting used tires became a prototype for developing similar alternative energy sources from waste, creating the business of RDF (Refuse Derived Fuel)¹⁰.

Today, the cement and RDF business, automobile and tire industries may face an environmental problem immediately without a system for combusting used tires and this gives us an example of an environmental business built into the structure of the social system. *Once it is built into the social structure, it may dominate the market.* The companies' responsibility to society will be very large and the companies need to be proud of that. Companies need to constantly improve their efficiency and reduce the social cost so that, once it is accepted technology, the business models can form a solid business base in the social structure and retain the customers. In this sense, companies need to up-date their business model frequently to meet changing environmental issues.

Companies succeeded in supplying equipment for the first and the second generation because they needed to think of ways to continue business model innovation by offering not only equipment but also services. To develop the system integrator can be the next business model and to develop the entire system solutions can be the following business model. An important factor to consider to carry out continuing business model innovation is the accurate prediction of the future social systems because companies in environmentally sustainable business need to become an important part of the social system and retain the customers by frequent innovative changes to their business model. In this sense companies also need to pay keen attention to the generation change of the technology. Professor Donald Mitchell writes in his book 'The Ultimate Competitive Advantage'¹¹ that, according to his survey results, continuing business model innovation is the key to success. The environmental business is not an exception to this golden rule. Companies need continual business model innovation to keep the competitive edge in environmental solutions and to contribute to the society by reducing the social costs of environmental protection.

3-1-3 Frameworks to find sources of "Green innovation"

Managers' major challenge might be to find the right opportunities and strategies for "green innovation". As I have already explained, two important factors for "green innovation" are technological innovation of the products and services and development of the social system.

To set up business strategies for “green innovation”, I propose to use a matrix consisting of “greening services and products innovation” and “greening system building”.

“Green products and services innovation” literally represents the extent of the progress of the products and services for the environmentally sustainable business. I define the three steps of “greening products and services innovation” as follows:

Existing level → Reformation level → Innovation level

“Greening system building” represents three steps in the building of systems for the environmentally sustainable business. As the steps proceed, the coverage of the service expands:

Product level → Individual and partial systems level → The social system level

The matrix made by “greening products and services innovation” and “greening system building” will show nine business domains in the matrix, as shown in figure 3-1-3-a.

From the current greening position, companies can set strategic directions towards

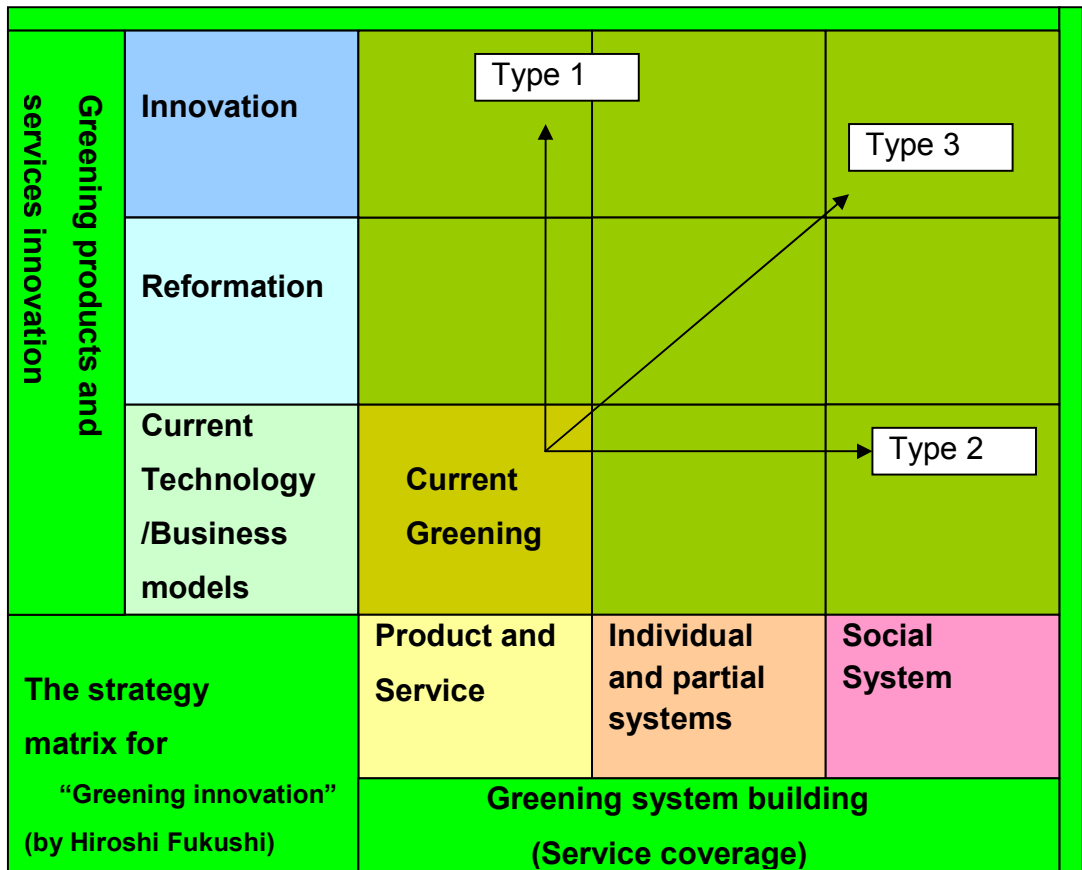
“greening innovation”:

Type 1; Greening products and services innovation, to provide product innovation

Type 2; Greening system building, to enlarge the coverage of the system ultimately to form a social infrastructure.

Type 3; Greening (social system) innovation, to provide an innovative social infrastructure.

Figure 3-1-3-a The strategy matrix for “Greening Innovation” in the money economy

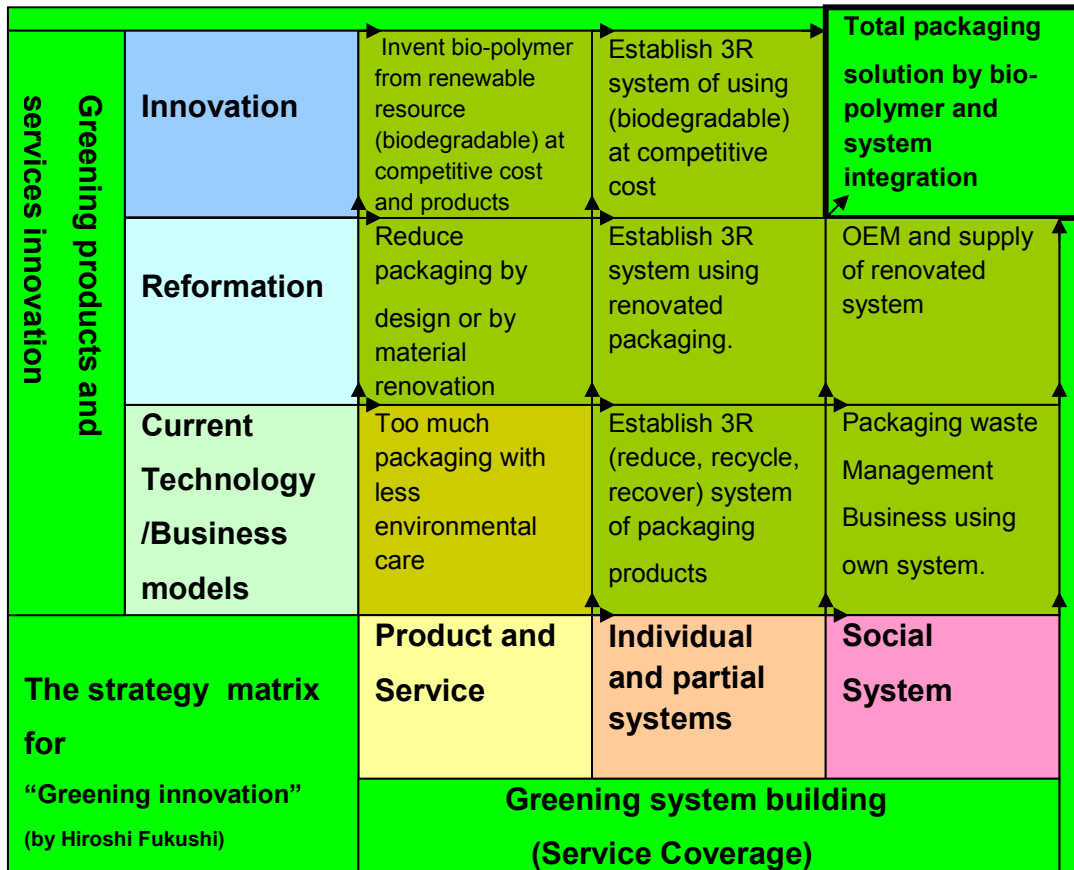


At the beginning of this paper, I warned that manufacturers in the developed countries nowadays are neglecting the environmental burden and the associating social costs of the packaging. I can show an example of how to plan a business strategy to solve this problem by using the strategic matrix I propose (Table 3-1-3-b).

The two biggest problems related to packaging materials are its biodegradability/ renewability and the necessary recycle/recovery system. If a biodegradable polymer can be produced at competitive cost from renewable material such as organic acids and amino acids that will save a significant amount of CO₂ emission and reduce environmental contamination. The establishment of the recovery/ recycle system could help to reduce the total energy consumption. Companies can enter the business by providing better

packaging material (Type 1); by inventing an efficient recovery system (Type 2) or by doing both at the same time (Type 3).

**Figure 3-1-3-b: The strategy matrix of the of “Greening innovation”
Examples of packaging problem**



3-1-4 Decision making of strategic positioning in “Green innovation”

I have plotted several successful companies in the strategy matrix for “Green innovation”.

Type 1

The US company 3M is famous for its innovative products design and its consideration of the environmental sustainability. DfE (Design for the Environment) and LCA (life cycle assessment) are applied to the development and total product management of 3M.⁸

Asahi breweries (Japan) is famous for its zero emission policy¹² in its production and ÅBRO (Sweden)^{13, 14} is producing natural beer using only natural ingredients. Both companies have become environmentally friendly by reforming their production technology.

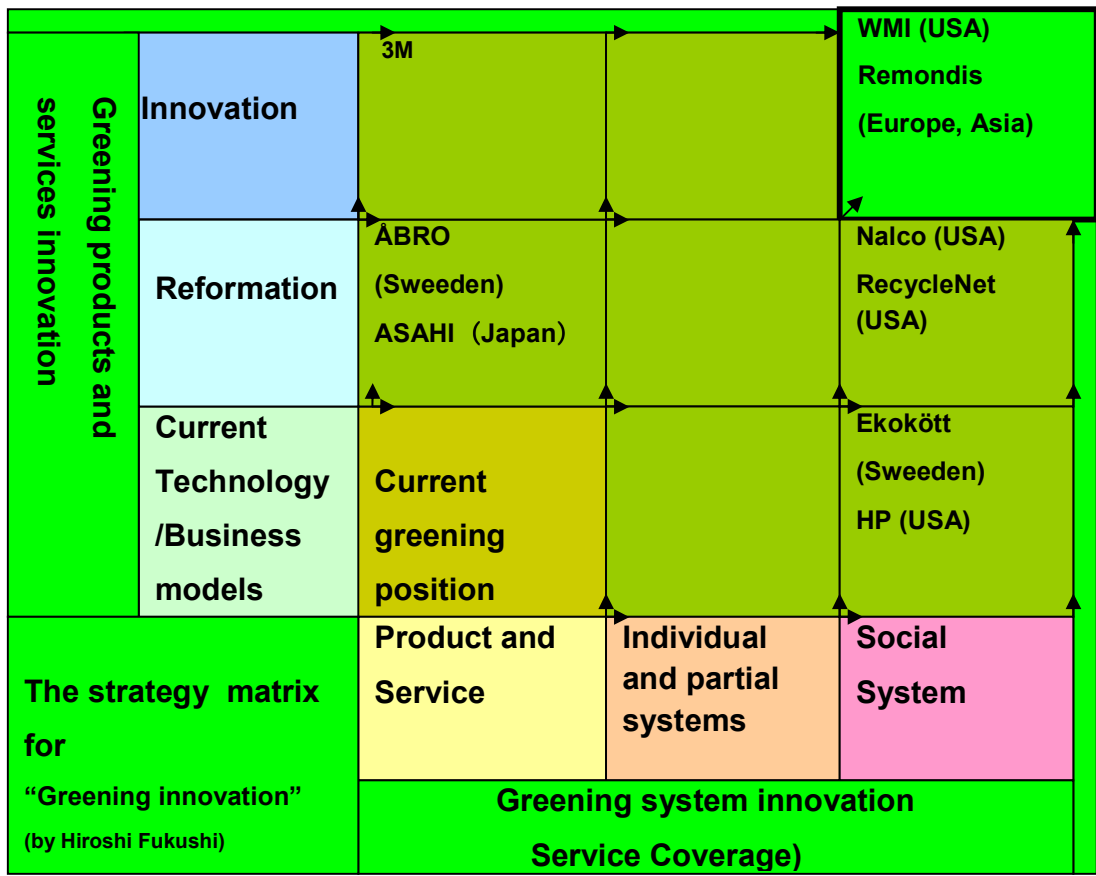
Type 2

Ekokött (Sweden)^{14, 15} is a co-op of more than 1000 farmers aiming at ecologically sustainable farming. HP (Hewlett-Packard USA) provides a service that makes it convenient for consumers and businesses to recycle unwanted computers and equipment from any manufacturer without adding to landfills.

Type 3

WMI (USA)¹⁶ and Remondis (Europe and Asia)¹⁷ are waste recycle and management companies built into the social system. Around Type 3, Nalco¹⁸ is a water management company expanding its service from supplying reagent for water treatment to offering outsourcing management of water treatments systems. RecycleNet¹⁹ operates a unique trading system for secondary commodities, which generators, brokers, dealers, processors and consumers use to buy/sell/trade recyclable materials or used items.

Figure 3-1-4: Example of successful companies in the strategy matrix for greening innovation



Every company has a different background so naturally the goal and the strategy of each company will be different. Companies need to consider three important factors to set their strategic positioning on the business matrix. The first factor is the potential market size of the business, the second factor is the fitness of the business to the company (i.e. how well an environmental policy would fit in to or with the company's business) and the third factor is the risk management capability. In the market economy, the competition is very intense. Companies need to analyze the market potential well and decide in which domains the company should make inroads, given the company's fitness and risk management capability. Companies tend to overestimate the potential because they see the market from the view point of service providers. To estimate the potential market accurately, companies need to know the value and needs of customers and estimate the market potential from the customers' perspective. Forums and interviews are good ways to gain an understanding of those values and needs. ECOLAB, which Professor Donald Mitchell

refers to in his book, “The Ultimate Competitive Advantage¹¹“, is very good at this. ECOLAB started its business by supplying cleaning chemicals and gradually expanded its business into over all cleaning services, including the pest elimination, janitorial, floor care and water treatment services, and management advice to businesses. An important factor in ECOLAB’s achievements was that ECOLAB carefully observed and measured its customers’ experience to identify the best practices.

The second factor – fitness – is the companies’ ability to meet the new requirements associated with new business domains. Domains similar to the existing business, or domains which have a synergistic effect with the existing business, are easier domains (i.e. type of business) to make inroads into. The third factor to be considered is risk management. Customers prefer low risk of failure to the services and products in the area of the environment so companies need to prepare risk management systems to guarantee safe operation of the services and the products. The environmentally sustainable business in the money economy is not easier than other business. It may even be more difficult because there are more factors that need to be considered for success. However, as the concerns for environmental preservation get stronger, the business opportunities also increase. Companies that succeed in environmentally sustainable business will get stronger competitive advantages, because environmental policies are built into the social infrastructure. As I showed in the matrix, the domains of the environmental sustainable business are sequentially connected to each other. Companies need to carry out continuing business model innovation, which Professor Donald Mitchell reveals as the KFS (key factor for success).

3-2 Challenges to “greening base expansion”

3-2-1 Problems and business opportunities in the traditional economy

I defined “greening base expansion” as innovative marketing and business strategies of environmentally sustainable business in the traditional economy (Figure2).

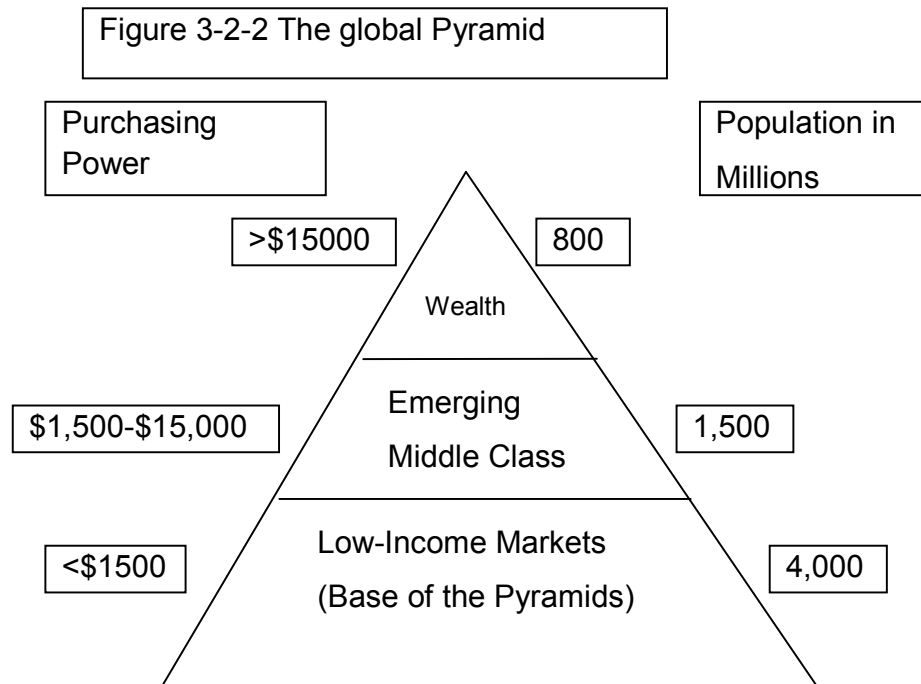
In developing countries, the population increases very rapidly so many social problems and business opportunities co-exist. Because of the expansion of the population in the traditional economy, it will face mass migration and accompanying environmental breakdown. Therefore, considering the magnitude of the environmental problems they are going to face, the traditional economies cannot be neglected by companies. The traditional economies can be new horizons to sustainable development and business opportunities for environmentally sustainable business. Unfortunately, most companies

(especially global, multinational companies in the money economy) have aimed to tailor existing products to fit the needs of the top of the pyramid in the capitalist world and have neglected the traditional economy, because they looked at traditional economies as poor economies and as cheap source of materials and energy for the money economy.

3-2-2 BOP (Base of the pyramid) as the target in “greening base expansion”

Figure 3-2-2 is the global pyramid, which Stuart L. Hart¹ uses to explain the attractiveness of BOP (Base of the Pyramid). Stuart L. Hart argues that the attractiveness of BOP is huge, because:

- Concealed below the surface of the purchasing power parity numbers is an immense and fast-growing economic system that includes a thriving community of small enterprises, barter exchanges, sustainable livelihoods activities, and subsistence farming²⁰.
- It is estimated that well over half of the total economic activity in the developing world takes place outside the formal economy, in the so-called informal or extra-legal sector²¹.
- By focusing on BOP, companies can find many opportunities for business to develop solutions to the social and the environmental problems in the traditional economy of the developing countries.



Source: C.K. Prahalad and S. Hart, "The Fortune at the Bottom of the Pyramid." *Strategy + Business*, 26(2002):pp54-67, cited in Adopted from Stuart L. Hart, *CAPITALISM AT THE CROSSBOARDS*, 2005, p111

Daewoo^{22, 23, 24} (Korean company) is one example of a company initiating "green base expansion". Daewoo relocated much of its industrial base to Burma, Iran, Uzbekistan, Russia, China, Vietnam, Brazil, and Tatarstan, where it can make long-term investments in the economic infrastructure. Daewoo is quite flexible, adjusting its business model to the local society. It can accept barter trading with Uzbekistan, which enables the company to be accepted by the local economy¹.

BY focusing on BOP, companies can expand the base of their environmentally sustainable business so I define this strategy as "greening base expansion" in Figure-2. "Green base expansion" is a process of finding the true needs of BOP, then finding and offering innovative solutions. This requires three basic attitudes¹:

- Meet the needs of BOP by mutual learning

Deep listening and mutual learning are necessary if products and services are to meet the real needs of the traditional market.

- Create innovations

Meeting those needs offers the opportunity to apply state-of-the-art (sustainable) technology in fundamentally new and disruptive ways. Simply transplanting business models from the customer or even the emerging market will not work (i.e. “Greening penetration”: Table-2).

Example, KY industries²⁵ applied the most advanced “nanotechnology” to create an innovative water filter to supply water in developing countries¹.

- Help to resolve social structural problems of BOP

Business models for the traditional market must leverage local talent, create employment opportunities, and build capability in the local community.

Companies that look at poor areas as dumping grounds for outdated technologies or dirty manufacturing facilities fail to identify market vacuums where there is minimal competition. Mere copies or transfers of the existing business from developed countries (i.e. “greening penetration”: Table-2) would not work in BOP. Companies need to focus on developing technologies, products, and services geared specifically to the needs of those in the traditional market.

3-3 Strategies of “Greening base expansion”

3-3-1 Meet the real needs of BOP

Deep listening and mutual learning are necessary if products and services are to meet the real needs of the traditional market. The question is how to do this. The answer is very simple, in one word, “becoming native”. The definition of the BOP is by itself a concept of looking from the top of this world onto other worlds. This is an attitude of the “foreigner” from a view point of BOP. To really communicate with BOP, companies with different cultures need to learn how to become “native” and how to develop native capability. Stuart L. Hart¹ writes an example of a company called HLL²⁶ (Hindustan Level Limited). HLL requires managers to spend six weeks living in the rural poor areas. A- Company Japan, assigns a new foreigner in a rural country to a home country national for three months. He is trained during this time in selling activities, which cover the whole country, without any pre-training in language or culture so that the newcomer can understand the culture,

life, business, and people of the country with minimum prejudices. Companies need to change their way of thinking about business in BOP. This may require a paradigm shift of the companies' values, culture and attitudes. In Table 3-3-1, I have summarized the typical paradigm (I would not dare say "standard") of today's companies in the money economy compared to the ideal paradigm to which companies need to transform themselves. Capitalism, typically represented by the success of the USA, failed to create a sustainable economy in either the money economy or the traditional economy. If companies in the money economy did manage to transplant the same economy to BOP, they would further destroy the sustainable environment of the earth. Companies need to contribute to the solution of the social and the environmental problems in BOP, in a way that fosters a healthy and environmentally sustainable economy.

Table 3-3-1 Comparison of paradigms of typical companies in the money economy and the ideal paradigm to be 'native' in BOP

	The paradigm of typical companies in money economy	The ideal paradigm in traditional economy
Culture	Mono culture, Departmentalism, Reductionism	Cultural diversity, Holism
Measure of Wealth	Income per capita	Traditional value apart from money economy
Development	Dominate nature	Emulate nature, Post development
Economy	Capitalism, Admit only money economy as the formal economy	Admit and adopt to various kind of informal economy (barter, self provisioning, house hold production etc.)
Positioning of companies at the local	Foreigner (Stuart L. Hart ¹ uses "Alien", however this word may remind of a human from the outer space so I rather use "Foreigner")	Native
Business model	Marketing to fill needs,	Marketing to sustain life, Decentralized business models, disruptive innovation
Production	Produce to raise the standard of living	Produce to live in harmony with the nature

3-4 Frameworks to find sources of “green base expansion”

I have shown that two factors which stand out as important for strategies of the environmentally sustainable business for “Greening innovation “ in the money economy are “greening products and services innovation“ and “greening system building” as shown in Table 3-1-3. In the case of “greening base expansion” in the traditional economy, “greening products and services innovation” stays as important because it can give a dynamic change in the environmental performance, however the second item “green system building“ would not work. If companies in the money economy hold their current values and try to introduce innovative systems, the social system in BOP will be destroyed and the environmental sustainability will also be ruined. It is companies’ internal systems, not the external system such as the social system, which need to be changed. Companies need to be native. Companies need to transform their internal paradigm from being “foreign“to being “native” Internal innovation in the values, culture and attitudes of the company is the key factor. While “greening system building” is an external challenge, innovation of the values, culture and attitudes is an internal challenge. I define this internal challenge of companies in the traditional economy as “greening paradigm innovation”, because it ultimately asks a company to change its internal paradigm. I propose a matrix composed of two factors “green products and services innovation” and “green paradigm innovation” for “green base expansion” in the traditional economy.

The steps of the “greening products and services innovation” are the same as in “greening innovation”.

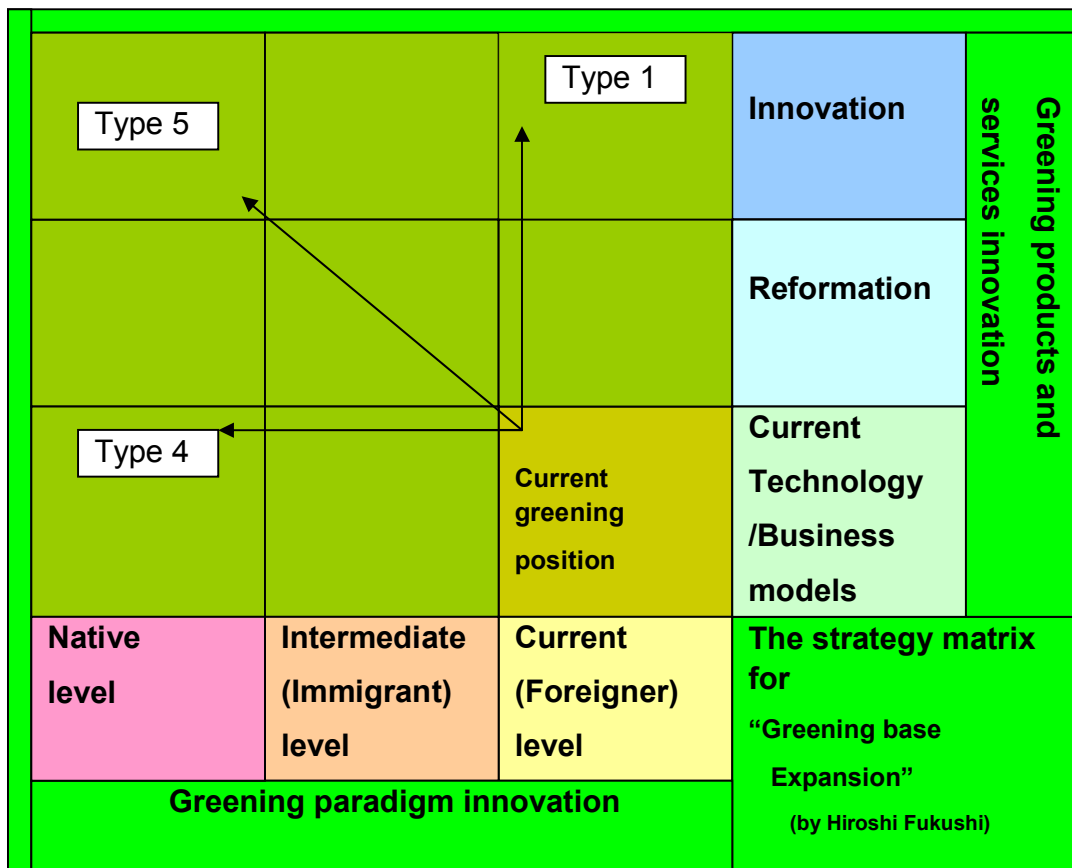
Existing level → Reformation level → Innovation level

The “greening paradigm innovation” can be expressed by the following three steps:

Existing (Foreigner) level → Intermediate (Immigrant) level → Native level

The matrix made by “greening products and services innovation” and “greening paradigm innovation” will show nine business domains in the matrix as shown in Figure 3-4-a.

Figure 3-4-a: The strategy matrix for “Greening base expansion” in the traditional market



From the current greening position, companies can set strategic movement towards “greening base expansion” in three directions:

Type 1; Greening product innovation

To provide product and service innovation.

Type 4; Greening paradigm innovation,

To transform the values, culture and attitude of a company to be truly native to the local society in developing countries.

Type 5; Greening base expansion

Become a native company by transforming the values, culture and attitudes of a company. Foster sustainable development by developing affordable product and service innovations.

I have plotted several successful companies on the matrix, citing examples which

Stuart L. Hart explains in his book "CAPITALISM AT THE CROSSROADS"¹.

Type 1

KY Industries²⁵ applied the most advanced "nanotechnology" to create an innovative water filter to supply water in developing countries¹.

Type 4

ApproTEC²⁷ developed a micro-irrigation pump at the price of \$100, which is affordable by the end consumer in BOP, and can be sold directly to the users without any corrupt intermediaries. At ApproTEC's homepage, they claim a phrase "The Tools to End Poverty".

Type 5 SELECO-India²⁸ is the largest supplier of solar electric home systems in India, and has built a reputation among the poor by making solar electricity affordable. As previously explained, Dawewoo²³ and HLL²⁷ are included in this category.

Figure3-4-b: The strategy matrix of “Greening base expansion” Examples of successful companies

HLL Daewoo SELCO-India		KY industries	Innovation	Greening products and services improvement
			Reformation	
ApporoTEC			Current Technology /Business models	
Native level	Intermediate (Immigrant) Level	Current (Foreigner) Level	The strategic matrix for “Greening base expansion”	
Greening paradigm innovation			(by Hiroshi Fukushi)	

3-5 Combined matrixes for “Beyond the greening”

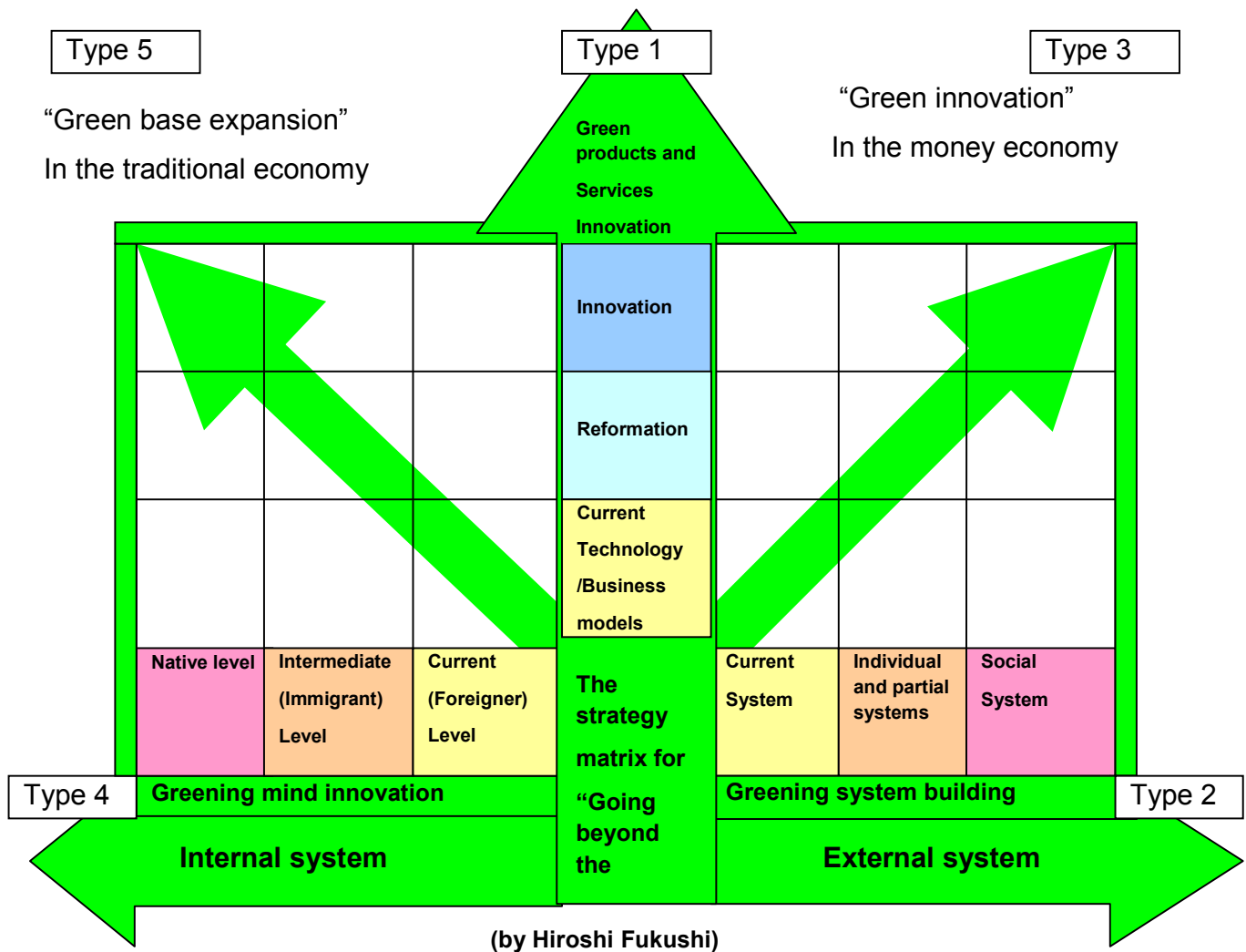
At the end, I propose a combined strategy matrix aiming for “Beyond the greening” in the money economy and the traditional economy.

Technological innovation in products and services expressed by “greening products and services innovation”, is necessary to both “greening innovation” in the money economy and “greening base expansion” in the traditional economy, because it is the source of the technological innovation. In the money economy, the competition between the service providers is much harder than it is in the traditional market, so knowing how to offer a system which can retain customers is an important key to success. “Green system

building “ is this kind of *external movement* of companies to extend services to the general customers so that the system offered will eventually be the part of the social structure to retain customers.

In the traditional market, on the other hand, neither the social infrastructure nor money dealing system is well established. Companies need to develop environmental solutions which are affordable and can work on a small scale. To find the true needs and true solutions, companies need to watch and feel the actual life and the society by being “native”. This requires a shift of companies’ paradigms. The companies’ values, culture and attitudes which compose their internal system need to be transformed from “foreigner” from the money market” to “native” in the traditional economy. I define this as “greening paradigm innovation” and this is an *internal movement* of companies. As you may have noticed already, the two different strategies of the environmentally sustainable business for the money economy and the traditional economy can be expressed as a pair of strategies, which have symmetrical structures, sharing the center of “greening products and services innovation”. Each has nine grids in the field, which show pathways in the continuing innovation of the business model.

Figure 3-5 The combined strategy matrix for “Going beyond the greening” in the money economy and the traditional economy



4. Conclusions

1. Historically, companies in the money economy have experienced paradigm shifts. Before the 1980s, companies' attitude to environmental protection was rather reactive. In the 1980s, so called "greening" became a major trend to proactively prevent environmental pollution and incrementally reduce the environmental burden. Since the 1990s the newest paradigm shift has been taking place. Stuart L. Hart¹ calls this movement "Going beyond the greening", which claims the necessity of radical transformation of the structure of industries to realize the sustainable environment and development.

2. "Going beyond the greening" requires companies to act as innovators in products and services in any regions of the world in which they operate. I propose a matrix to divide the global market into four domains, using (the money market/the traditional market) and (incremental technological progress/ innovative technological progress). Two regions of the matrix appear to be important to companies' success in contributing to society as environmentally sustainable businesses. These are "green innovation"; to use innovative technological progress in the money market and "green base expansion"; to use innovative technological progress in the traditional market.

3. In the money market where the infrastructure is already sufficient and the competition is very hard, knowing how to retain customers is very important to the success of the environmentally sustainable business. I found two factors; the technological innovation in products and services and the innovative system building are important for differentiation and customer loyalty.

4. In the traditional market where the infrastructure is inadequate and the money economy is not well developed. To find true needs, companies must see eye to eye with the natives. Companies are required to transform their paradigm from "foreigner" in the money economy to "native" in the traditional economy. This requires changes in companies' internal system; the values, culture and attitudes, along with technological innovation in products and services.

5. I propose two strategy matrixes of the environmentally sustainable business: one for the money economy and the other for the traditional economy. The matrix for the money economy has two factors: "Greening products and services innovation" and "Greening

system building”. The matrix for the traditional economy also has two factors "Greening products and services innovation “and “Greening paradigm innovation”. These two matrixes can be combined into one symmetric matrix. Both of the matrixes consist of nine grids, which show pathways of continuing business model innovation. Professor Donald Mitchell¹² found continuing business model innovation to be the golden rule of the successful business. My matrix for the environmentally sustainable business can be used as the strategic map to plot how to do continuing business model innovation in an environmentally sustainable business.

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