THE ROLE OF GREEN BUSINESS STRATEGIES ON SUSTAINING COMPETITIVE ADVANTAGE

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***Abstract:** Due to global warming, organizations need to consider environmental issues before they formulate their business strategies. This paper aims to prove the link between sustaining competitive advantage and environmental performance of organizations. Restructuring organizations to become environmentally friendly will eventually help them to minimize costs and maximize profits. Firstly, organizations could use cost leadership strategy as green changes in the organization will help them to minimize costs by eliminating wastes in processes. Secondly, while trying to produce environmentally friendly product, there would be changes in process and design of the product which will help organizations to differentiate. Finally, there are ecological niches, organizations could use focus strategy and easily explore.*

***Keywords:** Green business strategies, environmental cost leadership, environmental product differentiation, ecological niches.*

***Özet:** Küresel ısınmanın bir sonucu olarak, organizasyonlar stratejilerini oluşturmadan önce çevre konularını göz önünde bulundurmalıdırlar. Bu makalenin amacı, organizasyonlarda rekabet avantajının sürdürülebilirliği ile çevre performansı arasındaki bağı kanıtlamaktır. Organizasyonları çevre dostu olarak yeniden yapılandırmak, er geç maliyetlerini minimize etmelerine ve karlarını artırmalarına yardımcı olacaktır. Birinci olarak, organizasyonda yapılan yeşil değişiklikler sonucu israflar önleneceğinden ve maliyetler düşeceğinden dolayı, organizasyonlar maliyet liderliği stratejisini kullanabilirler. İkinci olarak, çevreye dost ürün geliştirirken, süreçte ve ürünün tasarımında değişiklikler olacağından, organizasyonlar farklılaştırma stratejisini uygulayabilirler. Son olarak, organizasyon odaklanma stratejisini uygulayarak, ekolojik nişlere kolaylıkla erişebilir.*

***Anahtar Sözcükler:** Yeşil işletme stratejileri, çevresel maliyeti liderliği, çevresel ürün çeşitlendirmesi, ekolojik nişler.*

1. INTRODUCTION

The United Nations' definition of sustainable development is: "a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations" (www.un-documents.net).

The Worldwatch Institute prepares pessimist reports on sustainable development and environment each year since 1975. The 2009 report on global environmental change indicates that oceans, land surface, atmosphere and fresh water systems have been modified extensively by human activities (Samuel S. Myers, 2009:9). For example, "Land-use activities, primarily for agricultural expansion and timber extraction, have caused a net loss of 7 to 11 million km of forest in the past 300 years" (Foley et al., 2005:571). As a result of these kinds of human activities, environmental problems started to cause hunger and disasters. The disasters could cause irreversible and unpredictable impact on environment. A recent example is BP's massive oil spill in the Gulf of Mexico which caused environmental disaster on April 2010.

As discussed above, environmental problems started to threaten the world and one of the most important reasons of environmental problems is business activities all around the world. Companies have been damaging environment since the industrial revolution and the situation is now unsustainable. In this context, companies have to recover the damage as they have caused most of it. Nowadays, the number of companies which use green business strategy as a tool to maximize companies' performance and minimize pollution is increasing. On one hand, these companies' shareholders (stakeholders, employees, suppliers, customers, consumers, government, local authorities, NGOs and society) have been pressuring them to be sensible to the environment. On the other hand, governments have been pressuring companies with new legislations and fines. For instance, Du Pont had to pay a record fine to the United States Environmental Protection Agency (EPA) in connection with perfluorooctanoic acid (PFOA), a Teflon processing chemical (MacLean 2008:110).

Besides the legal obligations which pressures organizations, the environmental certificates of The International Organization for Standardization (ISO) has became environmental pressure for organizations. ISO started to certificate international standards on environmental management since 1995 (ISO 14000 series) which plays an important role in international trade as these certificates became valuation criterion for organizations.

Some companies show their commitment to the environment by corporate social responsibility projects and some other companies use green management as a strategic tool to gain competitive advantage. Furthermore some companies' core mission is to protect the environment. For instance, The Body Shop, together with environmental organizations and its customers, made it a mission to propagate environmental awareness among other companies and society (Schwartz, 2009:193).

1.1 Environmental and Financial Performance

Porter and Van der Linde argue that "properly designed environmental standards can trigger innovations that lower the total cost of a product or improve its value" (Porter and

Van der Linde, 1995:120). According to Porter and Van der Linde; pollution is a source of inefficient use of resources: "when scrap, harmful substances or energy forms are discharged into the environment as pollution, it is sign that resources have been used incompletely, inefficiently or ineffectively" (Porter and Van der Linde, 1995:122). According to this hypothesis, stringent environmental regulation can improve firms' competitiveness and as a result, will lead to a positive relationship between environmental and financial performance for the firm.

At 21st century sustaining competitive advantage could be achieved by green business strategy as global warming and the other environmental problems affect all business world. As a result of climate change, the organizations' costs will increase. New legislations, possibility of taxing emissions, emission reduction plans which will affect capital expenditures and there will be a possible increase in energy prices, raw material prices and insurance premiums.

The changes in order to become green business will eventually reduce the costs of companies. Green businesses will reduce the material and energy they use so they could make savings. The amount of savings organization could make depends on the organizations' size and industry. For small and low energy consuming organizations there would not be a big difference for the company costs. However, if a company chooses its suppliers from green companies then the company will financially gain indirectly as company's 8-10 % input costs consists of energy bills (Goodall, 2009:5).

Capital cost of green business is lower, when compared with the other businesses. Green businesses could find investors easier than the other businesses. There is a new investment type known as "socially responsible investment" or "ethical investment". "Furthermore, about 40 international banks have now adopted the Equator Principles to make sure that the projects they finance are developed in a socially responsible manner and reflect sound environmental management practices" (Ambec and Lanoie, 2008:54). According to these Equator Principles, banks are checking the projects if they are socially responsible and/or environ-mentally friendly before they give a credit.

All environmental decisions of Green Businesses do not minimize costs. The decisions in order to protect the environment sometimes add additional costs. For example, a wind turbine on company's roof or a decision to provide recycled plastic bags for the customers will not probably make substantial difference to company's environmental credential but it will add additional costs to the company. Moreover, all steps taken to be environmentally friendly would not increase productivity. For example, if an organization uses Pollution Control Technologies, the results would not be efficient for the organization. Pollution Control Technologies deal with wastes after they have been created, they do not improve the efficiency of existing processes. Organizations should adapt pollution prevention technologies in order to produce efficiently. However, some eco friendly actions provide financial benefits. There are many pro-active environmental steps that should have taken even though they might add additional costs to the organization.

Businesses have to find the right balance between profitability and environmental performance. There is a positive correlation between organizations' environmental performance and economic performance. Firstly, better environmental performances increase income by these channels; better access to some markets, product differentiation, selling Pollution Control Technology to other companies. Secondly, better environmental performance decrease, costs of energy, costs of raw materials, and risk management.

1.2. The Risks of Organizations

If a company does not engage in activities to become green business now, then the risks it may face, will affect its future profit. The obstacles that companies may face are; economical, market, reputational, regulatory, operational and supply chain risks (Olson, 2009:5).

The problems due to the fluctuations on the price of energy and raw materials generate economic risks of the organizations. The usage of energy and raw materials have increased due to industrialization and the modern life in the last 100 years. In the future there are going to be shortages in finding some of the raw materials and energy moreover some of them will be completely extinct. Organizations have to adapt as there will be fluctuations in the price of petroleum and there will be difficulties in finding cheap energy. Businesses should meet their energy needs in new forms of energy like renewable energy and they should not depend on petroleum and other high priced energy types. As a result of using renewable energy and limiting usage of petroleum and the other energies, the environment will recover itself as there will be reduction in green house emissions. On the other hand, since there will be shortages in finding raw materials in the future, there is an ongoing innovation and recycling studies to find cheap and sustainable, substitute raw materials.

Second risk of refusing to be a green business is the market risk. Market risk is a major risk as business has to follow changing customer demands in order to continue living. New trend is that the customers are not only paying attention to buy eco-friendly products but they are also paying attention to the fact that the firms also have good reputation in environmental issues. In order to have good reputation, organizations use different kinds of strategies. A coffee chain could show their customers that they are highly concerned about environmental issues by using recycled cups. On the other hand, things are different at automotive industry as it needs large investments to design environmentally friendly car.

The obvious and important risk for an organization, which refuses to be green business, is regulatory risk. Furthermore, as international trade is now very common, organizations are obligated to obey to both local and international regulations. An organization that refuses to change the way of production and continue to pollute the environment will eventually going to pay fine. Furthermore, having good reputation on environmental issues, provide different kinds of opportunities to an organization. Global investors are trying to invest in environmentally ethical companies.

The other risk of not to being a green company is reputational risk. As a result of technological improvements, the positive or negative news about the organizations' environmental record could spread to the customers all over the world very quickly. In this era, organizations are collecting the goods from the market which proven to be hazardous to the environment or to the people even though they are losing millions of dollars.

Operational and supply chain risk is the fifth risk that organizations will face. It is now a well known fact that pollution is associated with inefficiency. Green businesses are making green investments to find out ways to eliminate inefficiency both for the environment and for the organizations as well. Another operational risk is environmental hazards. If an organization's operations are polluting the environment, then the organization will face public reaction both from legal authorities and customers. Supply chain risk is not to be able to gain green business customers since green businesses choose their suppliers from green companies. "Presumably, all plants with ISO 14001 certification pay attention to their suppliers' environmental performance, as this is one of the criteria to be fulfilled to obtain the certification. Furthermore, a recent survey of the OECD, covering more than 4,000 facilities in seven countries, showed that 43% of them assess their suppliers' environmental performance" (Ambec and Lanoie p.48). The certificates that organizations' both spending money and effort to get, are helping business to gain competitive advantage. This kind of certificates help businesses to gain reputation moreover it helps to attract customers' attention. For example when automakers Ford, General Motors, and Toyota announced in 1999 that they would require their suppliers to certify their Environmental Management Systems according to ISO 14001, the first ones to obtain certification certainly had an advantage (Orsato, 2006:133).

2. GREEN BUSINESS STRATEGIES

Organizations use green business strategies to gain competitive advantage on the warming planet. Green organizations are becoming productive by using green business strategies. We may state that organizations are beginning to understand the positive correlation between productivity and being an environmentally friendly organization. The term used to describe this positive correlation is "green productivity". "Green productivity" is a strategy for enhancing productivity and environmental performance simultaneously. "It is the combined application of appropriate productivity and environmental management tools, techniques and technologies that reduce the environmental impact of an organization's activities, products and services while enhancing profitability and competitive advantage" (Tuttle and Heap 2008:95). Major hotel chains managed to cut costs and improve environmental performance simultaneously. Inter-Continental Hotels, for instance, reportedly saves $300.000 per year, by replacing small bottles of shampoo and lotion with bulk dispensers, at its ten properties in the United States and Canada (Reinhardt, 1999:154).

On the warming planet, organizations need to consider environment during their strategy formulation process. The vital elements for an organization to survive are raw materials and natural resources which will probably extinct in the future. Businesses need to consider these environmental issues during their decision processes and they should built scenarios for the coming years. The organizations that built scenarios before the problems affect the business world, will gain competitive advantage by transforming environmental crisis to opportunities.

Different kinds of green strategies need different levels of investments. An organization building green head quarters is a sign of how dedicated it is to environmental issues. Since return on investment may take years. Another green business strategy is to lobby for more strict environmental regulations. New regulations are good for the businesses that prepared themselves as they will gain competitive advantage, on the other hand, some of the companies will have to leave the competition. "German car manufacturers have been fighting against the imposition of tighter emission rules imposed by the EU. Many of the models are gas-guzzlers and the companies will need to make changes to meet the proposed fuel economy rules. On the other hand Citroen which builds some of the lowest emission cars on the road, face a much less stressful challenge" (Goodall, 2009:10). The businesses have to accurately predict the green laws and take the necessary changes before it is too late for a company to take action.

In order to sustain competitive advantage, businesses have to find sustainable strategies. By developing ecologically friendly products, production costs could be minimized. By recycling used goods, businesses could make profits. Organizations should choose raw materials that are ecologically friendly. Moreover they should choose raw materials that could be up-cycled. Up cycled recycling means; the good is not losing much from its original value. In addition to this, "the goods which need low energy while recycling should preferred" (Unruh, 2008:113).

According to Hart; "In the future, it appears to be inevitable that businesses (markets) will be constrained by and dependent upon ecosystems (nature). In other words, it is likely that strategy and competitive advantage in the coming years will be rooted in capabilities that facilitate environmentally sustainable economic activity" (Hart, 1995:991). Hart predicts that innovative environmental strategies can lead to the development of firm specific capabilities which could be sources of competitive advantage.

2.1. Environmental Cost Leadership Strategies

A company could easily carry out cost leadership strategy by using green business strategy. The reason is green business strategy able businesses to make savings. As a result of the elimination of inefficient processes in production, the product design is improved, pollution is prevented and the production costs are minimized. The main factor minimizing costs is using organizations sources efficiently and effectively. Minimizing costs could be done by reducing energy and materials that used to produce an output. A company that wants to build its strategy on cost leadership should lower waste to the minimum level. The underlying principle of cost leadership is to eliminate waste in the system. The underlying principle of green business strategy is also to eliminate waste and using world resources efficiently.

To formulate and use environmental cost leadership strategy, organizations need to perform radical innovations in product design. This explains the relative scarcity of such firms. If the company innovate a technology that enables organization to reduce both economic costs and environmental impact, then they have the potential not only to become a source of competitive advantage, but also to change industry rules which they compete in.

Green cost leadership strategy might be used more efficiently by some companies that compete in particular industries. "Preliminary empirical evidence suggests that eco-efficiency strategies have greater potential to generate competitive advantage in firms that supply industrial markets, face relatively high levels of processing costs, and generate wastes and/or by-products" (Orsato, 2006:133). Most of the firms in the food and beverage industries fall into this category.

The second way to carry out cost leadership strategy by using green business strategy is by recycling products. Recycling helps organizations to save by decreasing usage of raw materials. For instance, at white goods sector, the well known promotion method is to do discount from the original price when customers return the used white good. By recycling used goods, both environment and the organization gains. The organization could make profits by not paying to raw materials again. Moreover recycling helps elimination of wastes which causes pollution.

Xerox is one of the companies that use recycling as a business strategy. Xerox had started "The Xerox Green World Alliance / recycling program in partnership with collection and reuse their customers which results in millions of cartridges and toner containers returned for reuse or recycling each year. Prepaid postage labels and packaging from new supplies make it easy to return spent items for recycling, where over 90% of the material is either reused or recycled" (www.xerox.com). Xerox is a company that established recycling program successfully and saves millions of dollars each year.

There is a win-win situation both for the environment and business. There are many examples from businesses in the world that uses both cost leadership strategy and green business strategy. By decreasing the usage of water, energy and raw materials, organization profits by two ways. Firstly organizations produce the same output with less input. Secondly, they will have good reputation.

Businesses could minimize energy costs by using renewable energy. If an organization starts to use renewable energy sources then they will have the opportunity to gain and sustain competitive advantage. Moreover by using renewable energy sources, the organization will be well prepared for the possible regulation changes.

2.2. Environmental Product Differentiation

Organizations are using environmental product differentiation to gain competitive advantage. "In fact, the most important distinctions to be made when considering environmental risk assessment are not between sectors but within sectors, where a company's climate-related risk mitigation and product strategies can create competitive advantage" (Lash and Wellington, p. 96). Changing a green products' package and form is a starting point to differentiate a product.

From the beginning of the product design stage and green supplier selection systems to preempt competition allow firms to differentiate products. Companies could make more profits with the help of environmental product differentiation. In addition to this by the help of environmental product differentiation, company could gain loyal customers.

There are companies which use environmental product differentiation strategy as their main strategy. Many companies that compete in textile industry started to use organic cotton. In addition to this the consumption of organic food is increasing.

There is an ongoing debate about whether environmental product differentiation helps organizations to gain competitive advantage. According to the results of comparative study which conducted in Quebec in 2003; there is no significant difference found between the profitability of the farms producing organic milk and the profitability of the farms producing regular milk (Ambec and Lanoie, p. 49-50). The reason of this result could be about differentiation strategy's success depends on the uniqueness of product or service. Moreover differentiated product could not be easily imitated by the competitors. Results might be different if the study conducted at any other sector.

For the success of differentiation strategy, the customers must gain additional benefits from the product. There should be reduction in resource consumption and waste generation during product usage. The overall life of a product needs to be longer than the competitors. Environmental product differentiation strategies' success depends on some conditions. Firstly, products' eco-label must attract customers' attention. Secondly, there must be customers who are willing to pay extra for an environmentally friendly product. Thirdly, organization should communicate its products' environmental benefits in a credible fashion. Finally, environmental product differentiation could not be easily imitated by the competitors.

2.3. Focus Strategy

Today, environmentally friendly products and services represent a defined market niche explored by firms worldwide. Most of the environmental products are very newly developed and customers are from "Green consumer segments". The term used for environmentally friendly and economic cars is; eco-niche. A good example to eco-niche is the hybrid cars, such as the Toyota Prius, emerging as a green niche market in the automotive sector.

Viable markets for green products often depend on the early support of green consumers, who constitute an enthusiastic minority among a broader, heterogeneous population of consumers. Green consumers are willing to pay a premium to become early adopters of environmentally preferable products (Andrews and Vault, 2009:327).

3. CONCLUSION

Organizations are trying to reduce, evaluate, monitor and control their environmental impact. In order to reduce, evaluate, monitor and control their environmental impact, management needs to make fundamental changes in some of the ways of operating a company.

Strategy formulation is a process which organization analyses both internal and external factors that will affect organization in the future. One of the tools used to analyze external factors is PESTEL analysis. "PESTEL" is combination of first letters of political, economical, social, technological, environmental and legal factors. The environment and green issues are related to most of the external factors that are affecting organization. Political and legal factors are affecting strategy formulation of a business as new environmental legislations have tremendous effects on business. Secondly, social factors are one of the most important factors, it is vital for company to meet changing needs of its customers. Because environmental problems started to affect human life, customers are started to become environmentally conscious. Thirdly, company must keep up with environmentally friendly new technologies and innovations. As all of the external factors are somehow related to environment, then organization should consider green issues while formulating strategy.

As environmental activities in the organization helps decreasing costs, differentiating products, and/or focusing on niches, organizations should use one of Porter's generic strategies to compete more successfully.

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