

INTERNALISING ECO INNOVATIONS FOR BUSINESS GROWTH AND COMPETITIVE ADVANTAGE

Dr.Mrudula Trivedi
Assistant Professor
Department of Commerce and Business Management
Faculty of Commerce
The Maharaja Sayajirao University of Baroda
Vadodara
India

Abstract: This paper examines several changes that created a new landscape for green products and green innovations. Careful investigation reveals that external business environment have been witnessing many changes and the turning point came after late 19th century which led to green consumerism and compelled corporate houses to think about sustainability and environment protection. Slowly and gradually landscape for green products and green innovations took clear shape and the market potential of green products was visible. Changing climate, ever increasing awareness of consumers and their willingness to opt for green products consciously, and several pressures built up globally led the world including India towards eco innovations and finding the feasibility of the same. Corporates undertook green projects and tried to differentiate their products from rival brands and infact they could sustain their success and enjoyed competitive advantage for a longer time in the market. Global giants like Coca-cola, P&G, Amazon, Apple have invested their resources and created iconic brands through eco innovations. Thus, eco innovations can be internalized successfully for business growth, sustainability, profit and customer delight.

Key Words: Landscape for Green Products, Eco Innovations, Business Growth, Sustainability, Competitive Advantage, Customer Delight.

INTRODUCTION

The landscape for Green Products

External business environment have been witnessing many changes and the turning point came after late 19th century which led to green consumerism and compelled the corporate to think about sustainability and environment protection. Following are the elements of landscape for green products.

1. Huge Energy demand in India

Fuel consumption in India increased by 10.7 per cent to a 16-year high of 196.48 million tonnes (MT) in 2016. India is the fourth-largest Liquefied Natural Gas (LNG) importer after Japan, South Korea and China, and accounts for 5.8 per cent of the total global trade. Domestic LNG demand is expected to grow at a CAGR of 16.89 per cent to 306.54 MMSCMD by 2021 from 64 MMSCMD in 2015. (IBEF) According to the Planning Commission's recent report, India Energy Security Scenarios 2047, the country's oil imports could continue to be around 80 per cent of consumption in 2030, even in a "maximum energy security pathway" scenario. According to the 'BP Energy Outlook 2035', released in February this year, the share of India's energy production (including coal, oil, gas and bio fuels) in its total consumption will decline from 59 per cent at present to 56 per cent by 2035. (Business Standard)

2. Climate change

Today climate change poses threat to public health. 21st century is witnessing extreme weather conditions and related diseases are beyond control such as malaria, dengue, cancer etc. The Climate Change Report 2014 Warming of the climate system is unequivocal, and since 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen. India is developing country, with nearly 700 million of her over one billion population living in rural areas directly depends on climate-sensitive sectors (agriculture, forests, and fisheries) and natural resources (such as water, biodiversity, mangroves, coastal zones, grasslands) for their subsistence and livelihoods. Heat wave, floods (land and coastal), and draughts occur commonly. Malaria, malnutrition, and diarrhea are major public health problems.

3. Increasing Awareness of Consumers

Consumers in India are becoming more aware and showing concern for our environment. They are now asking for environmental performance of the product. With consumer's increased ecological awareness, many firms are attempting to meet latent and long term consumer needs by adopting more ecologically friendly and socially responsive approach to product development, manufacturing, packaging, distribution and promotion. This attempt to meet latent or future consumer needs by marketing management (Kotler,1973) can be conceptualized as an extension of the marketing orientation augmented by: (1) Innovation, (2) Adaptation and 3) A strong social and ecological conscious.¹

4. Globalisation and pressures of environment protection

Economic growth in developing countries such as India, China, Russia etc. have becoming financially strong economies and posing new challenges on MNCs for saving energy, environment protection, human rights and corporate social responsibility. These markets are significant for MNCs as their mother countries are no more attractive growth markets.

5. Government Initiatives for Legislative requirements

Due to increasing pollution and emergence of green consumerism directed all govt. efforts towards forming new legislations and practices which corporate have to practice now. Product designs, packaging, life cycle mgt. and other relevant measures are now adopted by organizations. Similarly, eco-labeling initiatives are gaining popularity and are being preferred by consumers. So, organizations are moving towards legislative as well consumer preferred labeling schemes.

6. Emergence of Green Projects

Institutional investors have started showing preference for green projects and they do recognize importance of environment and sustainability. Government has started solar street lights, solar roof top schemes in a big way and similarly industries, NGOs are showing interest in green projects and green products.

The adoption of an eco-marketing orientation by a firm is principally a response to the increased pressure by the society for business to meet its comprehensive and ethical and moral responsibilities, while adhering to the marketing concepts' basic tenants as suggested by McCarthy and Perreault (1984) of meeting customer needs at a profit. In addition, an eco-marketing orientation may provide the organization with a strategic competitive advantage in both domestic and international markets.²

Studies indicate that during the 1960's green consumerism emerged and slowly and gradually greener business trends took place world over. Marketing practices and business orientation have started shifting their attention from consumer satisfaction and profitability to consumer satisfaction, profitability &

environmental protection. Some visionary organizations took a lead in practicing green marketing. They understood consumer's growing concern for environment, changing preferences for green products and they successfully exploited it as a new business opportunity.

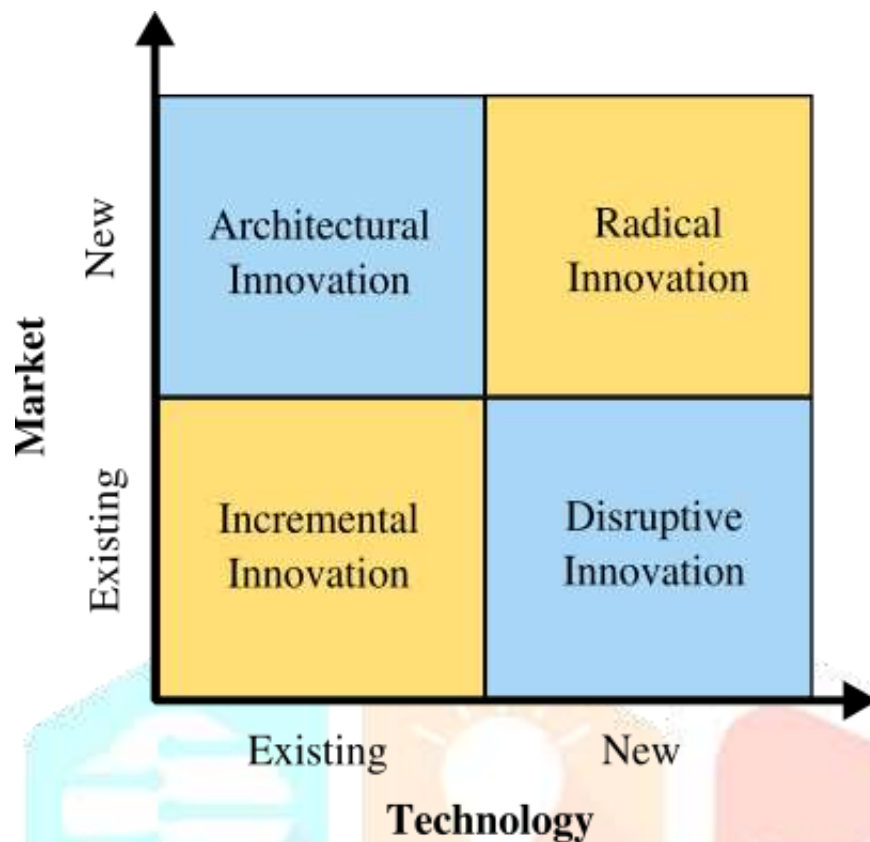
Understanding of this landscape for green products provides an insight about recent developments about business and industry practices, market trends, consumer preferences and direction in which future business practices would move. Its important to understand so that eco innovations can be launched successfully in the market, environment can be protected and sustainable competitive advantage can be achieved with profit. The differentiating factor in two wheeler industry can be design as non price competition is prevailing because of the very nature of industry being oligopoly market.

Innovation

The term innovation stands for newness. Newness in product features, functions, concept of doing business or retaining, change in organisation's market offering. Using innovations, organizations can generate value in its product and at the same time enhances value to the customer. Innovations once commercially launched and if turns out successful, then it creates new assets and wealth for the organization. Innovation leads to change in existing organisations's market offerings, and has a potential to be used as weapon to win customers and markets. In the context of green marketing, if inherent nature of innovation is eco friendly, then company can enjoy sustainable competitive advantage.

In the words of Peter F Drucker (1954) 'there is only one valid definition of business purpose: to create a customer' and 'the business enterprise has two and only two basic functions: 'marketing and innovation'. Innovations use assets and competencies (skill and knowledge in both technical systems and management systems) of the organization along with innovation processes to bring about new or different market offerings, which when successful in the market bring in immense value to the firm.³Innovations may be improvements in the existing product performance. They are basically continuous innovations. However, some innovations create markets and simultaneously disrupt the existing market or value network and the technology is radically new, then it is called disruptive innovation.

Types of Innovation



(Source:techblog.constantcontact.com)

Incremental Innovation is the most common form of innovation. As depicted above, it employs existing technology and delivers better value to the customer in terms of attributes/features, enhanced design or performance improvement of the product within your existing market. When innovations are created employing new technology in existing market, it is called disruptive innovation. Apple's iPhone is the classic example of disruptive innovation. Prior to the iPhone, most popular phones relied on buttons, keypads or scroll wheels for user input. The iPhone was the result of a technological movement that was years in making, mostly iterated by Palm Treo phones and personal digital assistants (PDAs).

Architectural innovation is simply use of existing skills and technology and applying them same in a different market. This innovation pays off on continuous basis as long as there is a scope and potential of adding new customers from unexploited segment/market. Careful study is required pertaining to new segments and their requirements of product/service. However, degree of risk is minimal as it uses existing skill set and technology.

Lastly, creation of new markets with radically new technology that does not disrupt existing markets, is called a revolutionary innovation, with new to the world products. It gives birth to a new industry and brings something which was never in existence before. e.g. mobile phone was first invented it was radical innovation and it gave birth to new industry, and created altogether a different market.

Peter Drucker identified seven sources of opportunity that will ultimately drive innovation:

1. The organization's own unexpected successes and failures, and also those of the competition.
2. Incongruities, especially those in a process, such as production, distribution, or incongruities in customer behavior.
3. Process needs.

4. Changes in industry and market structures.
5. Changes in demographics.
6. Changes in meaning and perception.
7. New knowledge.

(Source: innovationexcellence.com)

Eco Innovations

Since, the focus of the study is eco innovations which are aimed at bringing business sustainability, its important to discuss what is eco innovation and does it has a potential to generate business growth alongwith sustainability? Eco innovations are necessarily environment friendly and satisfies the customer by delivering a new experience. Infact, it has a potential to deliver customer delight as eco innovations can provide unique experience to the customers.

According to Jacquelyn Ottman Eco Innovation can be defined as innovating at the concept stage, or developing entirely new products and services (including materials and technologies) capable of performing the same function as existing ones only with significantly less environmental impact.⁴ Eco innovations offer new opportunity to organizations to satisfy customers, registering profits and also enjoying competitive advantage in this highly competitive business environment. Organisations need to evolve a strategy which totally transforms itself from just design and redesign of products to innovation led organizations where eco innovations are incorporated in various spheres of business such as eco friendly raw material, eco innovative product design, bringing sustainable technology in business, green advertising and green packaging, and integrate eco innovation in organisation's system. It is important to note here that organizations need to become progressive over the years and rather than simply focusing on only eco product innovations, eco innovations need to be incorporated so that negative environmental impact can be minimized in its true sense.

As mentioned by Ottman, there are five strategies for eco-innovation.

1. Innovate at the system level
2. Develop new materials
3. Develop new technologies
4. Develop new business models
5. Restore the environment⁵

Introducing change at the system level helps firm to save resources significantly. Japanese company Soladey International took a step back and decided that the tooth brushing system as we know didn't need as many elements. So they built a photo catalytic titanium dioxide rod into the handle of their toothbrush. Brushing teeth with this toothbrush in a bright room causes chemical reactions to break down tooth plaque, eliminating the need for toothpaste.⁶

Today trend of using e-books and e-magazines is catching up at a faster pace. Amazon's Kindle, Barnes & Noble's Nook, Sony's Reader, and Apple's iPad. News papers, books and magazines are gradually disappearing. People find the content of books and newspapers on their fingertips in their devices and even on the go due to mobile internet with significantly lower costs. The environmental benefits of using e-readers to read electronic books (ebooks) are simply awesome. According to a fascinating report from [the Cleantech Group](#), called The Environmental Impact of Amazon's (s AMZN) Kindle, one e-Book device on average can displace the buying of about 22.5 physical books per year, and thus deliver an estimated savings of 168 kg of CO2 per year. (Gigaom)

Raw material that is being used by various industries such as chemicals, plastics, metals etc. also bears its environmental impact. It should be studied carefully to reduce negative impact on environment. Plastic usage need to be minimized and industries need to focus on reused and renewable plastic. Since the 2009

introduction of PlantBottle™ packaging-the first-ever fully recyclable PET plastic bottle made partially from plants-Coca-Cola has distributed more than 40 billion PlantBottle packages in over 40 countries. The use of this innovative, more sustainable packaging has saved the equivalent annual emissions of more than 365,000 metric tons of potential carbon dioxide emissions. This is equivalent to the annual emissions produced by 41 million gallons of gas, more than 77,000 cars or by burning 845,000 barrels of oil. Plant Bottle packaging now accounts for 29 percent of the Company's packaging volume in North America and 8 percent globally, making Coca-Cola the world's largest consumer of bioplastics. (Coca-colaCompany)

Over the years due to Industrialisation, environment is being polluted. Its alarming situation and technological breakthrough for the cause of sustainability will play significant role. Coca-Cola brought flavor, fizz and fun to the water fountain in hot summer at Georgia Institute of Technology campus by undertaking pilot project at DASANI Pure Fill Station. The idea was to come out with innovative machine which acts as hydration point within campus. Options of making free water either carbonated water or flavoured water was given to the students. An attempt was made through research how much students would prefer to pay for this option? DASANI Pure Fill was constructed using a Lancer beverage dispenser, a proprietary Coke chiller and a bag-in-box (BIB) system for the flavors and paired with a custom-built smartphone app, which lets users track their hydration and geo-locate a nearby machine, and a cashless payment system. (Coca-colacompany)

Its also very important to develop a new business model, which can help the firm to introduce eco-innovations at profit. New business models need to come out with solutions which prove to be win-win strategy for the firm and its customers. Bicycle rental programmes are successful business model. With over 20,000 bicycles in about 1,500 self-service rental kiosks, the bicycles are a convenient, cheap, trendy, and emission-free way for locals and tourists to get around town. Bikes can be rented for pre-paid amounts of time ranging from 30 minutes up to one week, and then dropped off at any kiosk. In the first year alone, more than 27.5 million trips-an average of 120,000 trips per day- significantly reduced car congestion and earned the city more than \$31 million in revenue.⁷

Restoring the environment and minimizing the environmental negative impact is also important task for the organization. New ways of exploring the possibility of launching products and services made up from renewable resources, green technology aimed at sustainability in the organization must be practiced by organizations. This strategy would help to differentiate and compete successfully. Procter & Gamble's water purification technology in a powder is an amazing innovation that quickly turns 10 liters of dirty water, potentially deadly water into clean and drinkable water. The packet was invented by P&G laundry scientists. They invented a breakthrough technology that can enable people anywhere in the world to purify dirty water in a simple, affordable and convenient way. (P&G)

In many countries, corporations are communicating their associations and commitments for sustainability. In US, according to the report by the Sustainable Investment Research Analysts Network covering the period from mid 2005 through the end of 2007, over 50% of America's 100 largest publicly traded companies (the S&P 100) report on their sustainability efforts. Over a third of those reports integrate elements of the GRI sustainability reporting guidelines.⁸

Some American giants such as Procter & Gamble, General electric and Wal-Mart have adopted sustainability in their business. Today, organizations need to guide their important stakeholders to perform and deliver green benefits.

Conclusion:

Today, corporations all across the globe recognizes that sustainability is now offering bundle of business opportunities along with statutory obligations, business houses have stated believing in the ethical responsibility of protecting environment. The value and ethics of business slowly moving and taking the central position in the business decision making. In fact, it is now a strategic business decision to internalise element of environment in product design, promotion, place strategies and all other major business decisions. Thus, sustainability is essential for survival and growth of business today. Careful analysis of various strategies adopted by different organizations such as Amazon's Kindle which has clearly translated into savings of 168 kg of Co2 per year. Coca-Cola's initiative of using bio plastics has saved the annual emissions of more than 3,65,000 metric tons of potential carbon dioxide emissions. Similarly, bicycle rental programmes have significantly reduced car congestion and earned the city more than \$31 million in revenue. P&G's water purification technology in a powder is yet another amazing eco innovation which purifies water and gives drinkable water.

All the above mentioned organizations and strategies adopted by them of introducing eco-innovations and internalizing the same have helped the firm to enjoy sustainable growth, competitive advantage and also helped in making profits through customer delight.

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