

Sustainable Business Models in the Dynamic Environment

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Abstract

Economic innovations, economic-efficiency and corporate social responsibility practices define much of the current industrial sustainability agenda. Sustainable business models are important in driving and implementing corporate innovation for sustainability and serve as a key driver of competitive advantage. The aim is to develop a common language that can be used to accelerate the development of sustainable business models in research and practice. It includes: Maximize material and energy efficiency; Create value from 'waste'; Substitute with renewables and natural processes; Deliver functionality rather than ownership; Adopt a stewardship role; Encourage sufficiency; Re-purpose the business for society/environment; and Develop scale-up solutions. This paper aims to align the legitimate business profit motive with care for the environment. The paper outlines the characteristics of a sustainable business models and also includes inspirational case studies that demonstrate good practice. It aims to challenge the conventional approach to business sustainability – that resource efficiency is the only solution to solving business environmental issues.

Key Words: Sustainable innovation, Industrial Sustainability, value creation, eco-friendly, optimize resources

INTRODUCTION

Sustainable development in broad terms means securing the natural resources in present for future generation. Our environment is a public asset of human system so it must be protected. It is necessary to ensure development on one hand and to reduce environment contamination and environment protection on other hand. A sustainable business will make profits over the long term whilst not causing environmental damage.

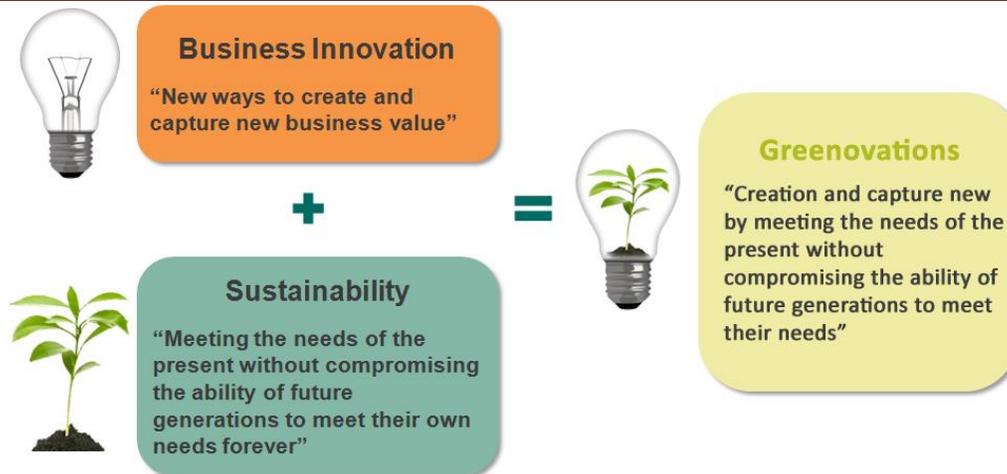
What is a business model?

A business model is how a company captures, creates and delivers value through products & services in the existing varied environment. It can also be called as an Operating Model of a company. It focuses on how funds flow between customers,

business stakeholders and suppliers. Improving business models requires a focus on the needs of the customer through Innovation while interacting with the markets and society at large.

What is a sustainable business model?

The term 'sustainability' covers environmental issues, wider corporate social responsibility (CSR), and the long-term continuity and economic survival of business. A sustainable business model or Green innovations is an approach that offers goods or services for financial benefits of the business, respects environment limits while fulfilling benefits for stakeholders and consumers' need. The sustainable business model provides a competitive advantage by aligning profit and environmental objectives.



LITERATURE REVIEW

The literature search generated articles on conceptualizing sustainable business models (e.g. Stubbs and Cocklin, 2008), specific industries (Wells, 2004 on automotive industry), categorizing PSS (Tukker, 2004), various sustainable business model developments in the BRIC countries (Birkin et al., 2009 on new business models on China; Shrimali et al., 2011 on stoves in India), sustainable value creation (Hart and Milstein, 2003) who looked into business models for sustainability. Major themes from the broad sustainability literature search helped to develop a list of potential approaches that contribute to business model innovation for sustainability. Eco-efficiency improvements (lean, cleaner production, eco-design), visions for a new economy and society (blue economy, natural step, prosperity without growth), creating value from waste (recycling, closed loop,), product service systems and social enterprise solutions. Additional business model examples from literature and practice were explored. Various approaches for categorizing the mechanisms were explored,

based on various pre-existing frameworks from the sustainability, manufacturing, business model and innovation literature. However, it was found that these do not really help for categorization, nor do they provide a framework for guiding future innovation activities. This is because of the nature of business model innovations for sustainability is not uniform process that can be used by all firms at time of slowdown or losses. They generally affect multiple pillars of company, impact multiple building blocks of the business model, and impact multiple stages of the value chain and stakeholders.

Manaktola Kamal (2007)

The key findings of this paper show that consumers using hotel services are conscious about environmentally friendly practices in India. They patronize the hotels that have adapted green practices though not compromising on service quality. The consumers prefer to use lodging that follows these practices but are not willing to pay extra for these services. For encouraging this government needs to acknowledge and institutionalize the practice by instituting rewards and offering benefits in taxes. Indian hotels have the competitive

advantage over similar products if they follow green practices.

Shalabh Kumar Singh, Atanu Chaudhuri (2009)

This report provides a framework to better understand how constraints faced by companies and their customers in emerging markets can be converted into competitive advantage and thereby into factors for growth. A multitude of constraints affect companies operating in emerging markets such as India. India is an emerging market where MNC's would like to have a presence but are deterred by constraints. Some of these constraints affect companies, while others affect customers. Although many multinational organizations are struggling to meet their business goals in India, many local companies and some MNCs have successfully navigated the constraints and managed to grow by building these constraints into their business models. They gained competitive advantage by either differentiating their products and services or modifying their processes.

Ans Kolk (2012)

Existing studies on sustainable energy take macro-economic and/or policy-oriented approaches, containing specific case studies of rural electrification and financing / delivery models. The authors categorize them on two dimensions (levels of subsidies and public /private involvement) and conclude that market based models operating without subsidies hardly exist in theory and also not in practice. The study shows that companies can at best have part of their portfolio non-subsidized based on customer segmentation or require socially oriented investors. Sustainable energy and

development are crucial and interlinked issues highly relevant to global society.

Göran Svensson (2012)

“Business sustainability” is defined as a company's or an organization's efforts to manage its impact on Earth's life- and Eco-systems and its whole business network. The model introduced emphasizes not only the importance of business networks adopting an E-footprint (Ecological footprint) and an Earth-to-Earth (EE) approach, but also a transformative Earth Ecological footprint model derived and inspired from a causal framework in complexity sciences. An Ecological footprint is a measure of human impact on Earth's ecosystem or it's the rate at which we are depleting natural capital. This stresses the importance of Ecological footprint stakeholders fostering networks of both interdependent and collaborative corporate efforts aimed at business sustainability.

Velu Chander (2013)

The paper aims to provide insights into the changing nature and dynamics of business model innovation in India over the last decade. First, with time the percentage share of business model innovations by new entrants has been increasing. Second, new entrants increasingly attempt efficiency improvements while targeting novel ways of meeting customer needs. Third, over the period of the authors' study, there was a clear shift in business model innovation away from IT-related industries towards consumer goods, media and financial services. Fourth, new entrants introduced new-to-industry, whereas incumbents introduced new-to-firm innovations. Fifth,

novelty-centered business models of new entrants and incumbents were predominantly new-to-firm; but efficiency-centered business models of new entrants and incumbents were new-to-firm and new-to-industry, respectively. Business model innovation increasingly becoming a priority for firms globally in order to create competitive advantage, but little is known about the nature and dynamics of such type of innovation in India.

Sunildro L.S. Akoijam, (2013)

The paper highlights some of the strategies adopted by Reserve Bank of India (RBI) to increase the rural credit facilities in the rural area of India. Rural credits serve as a tool for providing a sustainable livelihood for millions of rural Indians who don't have a means of livelihood. Several organisations like RRBs, Microfinance Institutions, NABARD, etc. are playing a major role in providing rural credit facilities to rural India. Reserve Bank of India (RBI) is formulating and regulating the policies and procedure to make the rural credit facilities available to most of the needy. In spite of several efforts put up by various organisations to increase the rural credit facilities, several challenges will prevail in the years to come

Rajshekhhar (Raj) G. Javalgi, W. Benoy Joseph, Andrew C. Gross, (2013)

The paper discusses the growth of services outsourcing and the economic and environmental forces that have contributed to the outsourcing of high-end services, also known as knowledge process outsourcing (KPO). The article discusses India's competitive edge as a leading supplier of knowledge-based services and proposes a model for sustaining this edge. The model

proposes key policy steps to move from the current position (e.g. supplier of business process outsourcing services) to a role of knowledge leader by providing advanced value added services to global clients. This model suggests ways in which a supplier nation can gain leverage in the value chain

Rajesh Pillania (2014)

The study shows not so good state of research, teaching, training and consultancy on one hand and below average performance in practice of green management within business schools in India. The findings are not encouraging and Indian business schools need to give more attention to the subject of green management both in theory and practice. For Sustainability Indian business schools needs to build both theory and practice of green management.

Bocken Nancy, M. Høgevold Nils (2014)

The empirical findings indicate evolutionary changes as companies move on a continuum from superficial to embedded sustainable business models and the application of sustainable business practices. The planning, implementation and evaluation of sustainable business models evolves over time within companies and their supply chains, as well as in the marketplace and society. The study also contributes to a growing body of knowledge on corporate reasons for and organizational challenges of sustainable business models, as well as environmental, social and economic aspects of sustainable business practices.

Kaushik Roy, Amit Karna (2015)

The authors employ a business model perspective to understand the (self-) sustaining mechanism for social good. The

authors find that SE ventures, like all other organisations, achieve competitive advantage based on available resources such as reputation and network of the founder, managerial experience and other corporate resources within the firm. The authors also find that the competitive advantage often comes from innovate usage – a practice that is reinforced by the support from institutional environment.

RESEARCH METHODOLOGY

Exploratory Research (Tools Used: Interactions with business executives,

Secondary Data- Including research papers published in journals, articles, books and web pages).

DESCRIPTION AND DISCUSSION OF RESEARCH

APPROACH TOWARDS SUSTAINABLE BUSINESS MODELS

The table below shows the comparison between conventional approach and the new innovative business approach of organizations.

Types of program	Old Paradigm	Innovative organizations
Core values	Physical innovation center, no core value defined. Success at any cost	Innovation as part of business policy and core value of the company; Dedication to truth and honesty
Leadership	Passive leadership	Leaders actively participate
Focus	Employee oriented	Customer oriented
Process	Stagnant, process oriented	Dynamic, fluid or organic In nature. Evolutionary.
Measure or source	Numbers of ideas are counted. “Out-of-the-box” thinking absent.	Focus on creating value. “Not-invented-here” syndrome not present. Does not matter where the ideas come from.
Training	Number of sessions/people counted Counts quantity, not quality	Coaching and feedback. Competency-based development.
Context/Culture	Individual oriented	Group oriented
Environment	Internally competing	Collaborative
Implementation	Lacks focus	Value oriented
Motivation	Extrinsic or none	Intrinsic
Corporate Citizenship	Narrow and shallow	Focused on big picture

Although majorly large companies demonstrate business models innovation for sustainability, but in reality business model innovations occurs at small and medium-sized companies. To substantiate this we witness the business model transformation

of Tata Motors (Nano), Reliance (consumer services - Reliance fresh & Trends), Phillips and Sony etc.

It's far easier to build a more sustainable structure from scratch rather than companies with existing, profitable models. This is

likely due to the complexity of transforming a working business model and securing the vested interests in the current model.

A focus on consumer consumption is also making an impact on corporate business models as firms find ways to create value with optimized usage of available resources.

TYPES OF SUSTAINABLE BUSINESS MODELS:

There can be many ways to make your business model sustainable. Some of the models are as follows:-

1. Society based model
2. Manpower based model
3. Money based model
4. Market based model
5. Management based model
6. Technological based model

1) SOCIETY BASED MODEL-

In order to sustain a business model the company has to make innovations which are well acceptable to the society as per their needs. Organizations that give back to the community, whether through innovated products or services or through **employees volunteering their time or through charitable donations** are often considered to be sustainable. Organizations can **encourage education** by training their employees and offering internships to younger members of the community. Practices like these **increase the education level and quality of life in the community**. Sustainable living, green living, healthy living and organic living, are basically derived from the same concept and also involving **recycling & reusing of the**

materials in producing low cost products. In this way, valuable resources that would otherwise contribute to pollution may be reused.

An appropriate example towards society based sustainable model would be the introduction of **Bharat VI** norms for Automobile industry. Automotive Business models use the alternative fuels like CNG, Electrical Batteries and solar based systems for business sustainability as these fuels protect our environment and are good for society at large. In 2015, **BMW launched i8** combining the benefits of an **electric motor and petrol engine**, likewise other car makers are also working for hassle free no fuel, battery run technology. The sustainability quotient in the luxury car industry is running high not just in terms of design and technology but also fuel.

Another example that supports the societal interest is the promotion of **Khadi industry** by the government. In order to sustain this business the **new trends as per the customer demands has been adopted other than the traditional process**. Also government has supported through the provision of **huge rebates, loans and grants etc to make it sustainable**. Recently, the Government is also encouraging the employees to wear hand-spun fabric at least once a week to work, as part of a plan **to boost Khadi production and benefit small weavers** across the country.

2) MANPOWER BASED MODEL

This model is very widely used in the industries nowadays. Any company **needs the manpower of various skill levels so as**

to transform the raw materials into the usable product for the consumers. Lot of innovations are required at different intervals as per the consumers demand which accordingly needs different sets of skill levels so as to expedite these and making the business sustainable.

For sustaining, **these skill sets need to be either new from the manpower markets or need to be retrained and upgrade in the existing skills.** Some demonstrations are given to substantiate as follows:

Cottage Industries support a larger part of the rural population of India. It is one of the major sources of Indian economy and is responsible for having hugely preserved the cultural heritage of India. The only time when the indigenous goods can fairly compete with the foreign goods due to the impression of Indian culture that makes them unique is when they also fulfill the current needs of the consumer. It is a kind of specialized form of small scale industry where the production of commodity takes place in the surroundings of homes and the workers are supplied by the family members only. In general the machinery commonly used at homes, are utilized for the production of commodities. Hence to compete with the new demands or to sustain this industry needs **upgraded manpower and machines or the existing resources need to be optimized.**

Similarly the **Tobacco industry**, involved in Beedi manufacturing is a traditional agro-forest based industry in India, highly labor intensive and predominantly unorganized. The beedi industry is one of the largest employers of workers in India, after agriculture, hand-loom and construction.

However, the estimates of the numbers of beedi workers engaged in this industry vary depending on who is making the estimates. The government estimates about 4.4 million workers in the beedi rolling industry, **majority of who are home based women workers.** So to make this industry profitable and sustainable such manpower needs to be trained and educated.

3) MONEY BASED MODEL-

In order to sustain and **get better returns for a longer period** companies have to make innovative strategies **to survive in the competitive world.** This competition puts greater demand on energy and other resources thus increasing the waste produced and pollution with ultimate increase in cost.

So as to reduce the cost of overall energy consumption the companies are implementing various strategies.

Example: Tourism and Hospitality Industry, **ITC Maurya**, Delhi has been awarded the 'Best Eco Friendly Hotel'. Innovation and cutting edge technology combined with an emphasis on responsible luxury have enabled ITC Maurya to create new benchmarks in energy, water efficiency, solid waste recycling and carbon reduction, making it the greenest chain of luxury hotels in the world. Some important sustainable steps taken are as follows:

- More than 58% of the total electrical demand at ITC Hotels is met through renewable resources.
- Using the largest and first on-site Paraboloid solar concentrators, a first for the global hospitality industry.

- ITC Hotels treat and recycle enough water to irrigate 65000 trees which aids in sequestering approximately 13000 tonnes of CO2
- The hot water generated at ITC Hotels through the use of solar energy would be sufficient to address the average hot water consumption of 6000 household / families
- Solar Energy has been used for outdoor lighting, steam generation and the hot water system
- Rainwater harvesting systems are in place
- Apart from restoration of its palace properties, TAJ Group has a reef recharge programme to increase Coral coverage.

Another example in this context is **HP & Dell Computers**. In order to sustain, these companies cut their cost by reducing the middlemen cost, store/outlet expenses. These small innovative steps give an edge over their competitors.

Optimization of resources has become the mantra for all the corporate world so as to sustain in current scenario and existing business model. They also invest money very wisely and thus minimizing the risk and lowering down the interest to be paid on that money.

4) MARKET BASED MODEL-

Businesses spend significant resources to gain market share for sustainability. Most important factor for this is Product Differentiation that means capture market share through differences in product offerings and creating new models for the same product.

Example-Low cost **Airlines** challenged the established business model by cutting out the travel agent cost and adopting an approach to marginal charges based on seat availability. Most of the airlines give perks for early booking of flight tickets. For sustaining in the market some airlines also provide with complementary drinks and snacks. Many airline companies have also installed self-check-in kiosks which help to cut down large money spent on labor cost. Some steps taken by this industry are:

- Modernizing their fleets with more fuel-efficient aircraft.
- Employing new technologies and fuel efficiency standards to reduce emissions.
- Introducing water-saving and recycling programs.
- Removing excess weight.
- Reducing airplane idling times.
- Offering carbon offset programs.
- Improving insulation at airports.
- Researching alternative energy sources for jets.

In order to sustain in the international market **McDonald's** also changed its menu according to the taste, preferences and culture of different countries. For sustaining in India it dropped Pork and Beef from its menu because the kind of consumers McDonald's attracts in India is very different from other countries.

5) MANAGEMENT BASED MODEL-

Some businesses strengthen their management to sustain by leasing, franchising, outsourcing their business activities. It is key process of expanding business.

An appropriate example for this would be Reliance, Big bazaar, Subway and all the multinationals.

A sustainable franchise relationship is one where both parties are receiving value. Strong brands generate this sense of value from the brand recognition they offer which generates business for franchisees and thus more profits for both. Success comes to those franchisees who are willing to do the work and who follow the franchiser's success recipe. While the franchiser has the responsibility to provide value and support to franchisees, the latter must put the effort and implement the system if they expect to achieve the results of the franchiser's proven model.

Example- **SUBWAY**, One of the key reasons behind the success of the SUBWAY brand is the solid support network and robust processes in operation. An in-depth support structure is operated through regional Developers who have specific experience in opening and developing SUBWAY franchises and often own several outlets of their own. In addition, the head office for the SUBWAY stays focused on operations, leasing, R&D, customer service, training and franchisee services. The SUBWAY brand encourages the staff members to actively participate in the decision making process. The aim of the marketing, advertising and public relations campaign is to drive profitable sales for franchisees.

This management based model is very well seen in **Automobile industry**. Here **outsourcing** is done for manufacturing, designing, assembly and servicing of cars. Due to the high competition in the niche

segment of cars, outsourcing is the most economically viable solution to survive in the global automobile market.

6) TECHNOLOGY BASED MODEL-

The businesses have to remodel their working operations with time in order to sustain in the market. Some of the technologies are completely new inventions, and others are innovative uses of existing technologies. An innovation strategy means determining how, and to what degree, firms use innovation to deliver a unique mix of value and achieve competitive advantage. New technology changes often intend to "disrupt" the existing marketplace, obsoleting the current market entries with a breakthrough product offering. It is harder for more established companies to pursue this strategy because their product offering has achieved market acceptance.

Apple has been a notable example of using this strategy with its introduction of iPod personal music players, and iPad tablets. Many companies invest heavily in their research and development programs to achieve such statuses with their innovations.

Another good example is of **e-retailing/e-commerce**. Now we can sit in the comfort of our home and have products and services delivered to our doorstep with the click of a button. No need to step out into that sunlight. And no need to drive all around town burning those precious fossil fuels, which of course produces climate change-inducing greenhouse gases. Brick and mortar stores require a considerable amount of resources in their normal operations—electricity, water, building space, etc. With the enterprise e-commerce software for businesses both large and small, however,

no physical storefront is necessary, which means a dramatic **reduction in resource consumption**. Some online businesses might rent some office space to operate out of, but the needs of a small office compared to those of an actual store are considerably smaller.

E-commerce allows you to speed up your standard business operations (advertising, sales, customer contact, ordering) more efficiently and often at a lower cost. It allows you to do new things such as; expand your business beyond its physical boundaries, access new markets, customize products, reduce costs and human error **through automation**, compete against much larger businesses, both through creative internet strategies and because a small business can project a 'big business' image through a well-designed website. Customers will increasingly expect you to be e-commerce capable. If you don't offer at least email, the most basic form of e-commerce communications, you will be viewed as behind the times.

Another innovative opportunity to lower your compliance costs is for **Tax Returns**, by developing the capability to submit your compliance returns online (B2G). By this we can also pay dividends faster, receive tax refunds more promptly.

ADVANTAGES THROUGH SUSTAINABLE BUSINESS MODEL-

➤ **Increase Productivity and Reduced Costs** Through development of more sustainable business practices, efficiency in operations will increase. With better use and conservation of resources, operations will be

streamlined and costs will decrease. Promoting resource savings, energy efficiency and waste reduction and generating bottom-line cost savings that can be used to fund other services;

- **Minimize Carbon Risk and Improve Energy Efficiency** It is estimated that companies will be required to cut 25% of carbon emissions by 2020 and 50-80% by 2050 which will be mandated by both state and federal regulations. This will affect the availability and costs of energy which are expected to double within the next 10years
- **Increase Employee Retention and Recruitment** Employees want to work with companies who are 'doing the right thing' and being proactive with corporate environmental and social programs.
- **Promoting innovation** Helping promote innovation and new thinking in the development of sustainable goods and services, setting your organization apart as a leader and allowing you to take advantage of future opportunities.

CHALLENGES OF SUSTAINABLE BUSINESS MODEL-

- The costs to run operations for sustainable development model are much higher than the costs of non environmentally friendly methods. Not only is the cost of sustainable development activities higher, but organizing, monitoring, expertise knowledge and new machinery are all the factors that come into play when it comes to innovative changes.



- For several companies, the problem is not that sustainable development is impossible, but it is less rewarding immediately and it requires more time and patience to cope up with past losses.
- It invalidates a previous system, leading to some wastage of infrastructure, both human and material, which was invested in the previous system.
- Some employees may have difficulty in adapting to the change, leading to employee resistance in the workplace.

CONCLUSION

The paper highlights various business model innovations for sustainability and how companies provide mechanisms to assist the innovation process for embedding sustainability in business models.

Sustainable development and innovation nourish each other mutually, sustainable development is an accelerator of innovation and innovation is an essential driver of sustainable development. Henceforth, sustainable model must ensure that the

business practices should be profitable enough to entice various stakeholders to continuously serve the society at large.

For sustaining in the changing times it becomes necessary for companies to innovate and adapt to new technologies. Failing to do the same can vanish the companies from the markets, Example-Nokia's inability to adapt new trends, seemed to be lagging in the race of upcoming smart phones(android) whereas Samsung, Lenovo and micro-max which were nowhere entered the race and focused on innovation as their core competence to gain the market share. In order for an invention to be turned into an innovation and be marketed, the firm needs to know how to capitalize on its failures and constantly experiment with new applications. Once a new model is agreed, strong leadership is required to share new goals with the stakeholders. Staff performance assessment and incentives should include sustainability objectives. This will help to drive through the changes.

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