

# Environment, Energy and E-Commerce

- Dr. K. Padhmanaban\*



## Abstract

Today, environmental investors consider not only retrospective risk from past activities and emissions, but also future environmental risks, particularly related to climate change. By transferring their environmental expertise to their foreign affiliates and exporting environmentally beneficial technologies, companies are also reducing the global impacts of pollution. Over the past 20 years, steel manufacturing has seen an energy-efficiency improvement of 167 percent. The energy efficiency of computer systems has improved an incredible 2.8 million percent. The future does look very bright for e-commerce in India with even the stock exchanges coming online providing an online stock portfolio and status with a fifteen minute delay in prices. Business to business transactions will represent the largest revenue. Online retailing will also enjoy a drastic growth. Areas expected to go include financial services, travel, entertainment and groceries.

**Keywords:** B2B Transactions, Energy Efficiency, Climatic Change, Stock Portfolio

## Introduction

The Business Environment today around the globe is much influenced by three vital factors viz., Environment, Energy and E-commerce. It could be asserted that these factors undergo a major change day-by-day contributing to the challenges and opportunities of the Business World. So, the impact and issues relating to Environment, Energy and E-Commerce towards trade, industry, commerce and business are to be addressed from the right perspectives so as to arrive at useful conclusions for the planners and policy makers to decide the course of them and their inter-relationship mainly for the welfare of the mankind on planet earth. An attempt is made below, to explain in brief about the significance of the above three core conference themes.

## Significance of Environment, Energy and E-Commerce

### *(i) Environment and business*

Climate and environmental concerns are also affecting the thinking of the private equity investors that buy and sell

companies. For the companies that investors analyze, climate change presents a series of challenges for both current business and future planning. For example, according to the weather-risk management consultancy Storm Exchange, a two-degree rise in average temperature during autumn can result in a 1 percent drop in same-store sales, a key measure that financial analysts use to judge retailers. In September 2007, the temperature was on average two degrees warmer than normal, and October 2007 had the slowest October retail sales growth in 12 years, according to the International Council of Shopping Centers.

During the first wave of environmental investing in the 1980s and early 1990s, environmental investors were concerned primarily with evaluating environmental activities from a risk perspective. The massive losses from asbestos-related claims — estimated to be more than \$250 billion in the United States alone, as reported in *The Economist* in 2005 — prompted some investors to include environmental liabilities in their financial analysis, such as responsibility and provision for remediation of sites contaminated with hazardous waste that are deemed Superfund sites by the federal government. Investors began incorporating other environmental data points into their thinking, such as use and emissions of toxic and hazardous chemicals.

So, the investors play an important role in advancing the environmental activities of the companies in which they invest. Green investing, or investing with the environment in mind, is an evolving practice with a rich history. No longer just referring to avoiding companies with historical environmental liabilities, environmental investing has grown to include evaluating a company's environmental profile to aid in research on topics including projecting future growth, analyzing preparation for upcoming regulations, and assessing risk preparedness.

Today, environmental investors consider not only retrospective risk from past activities and emissions, but also future environmental risks, particularly related to climate change. For many environmental investors, as well as many environmentalists, climate change has emerged as an overarching concern that encompasses others, such as fresh water use and shortage, destruction of animal habitats, and air pollution.

However, pollution prevention by itself did not improve the financial performance. The total quality environmental management (TQEM) approach was needed to reap the financial benefits of improved environmental performance. As part of the TQEM approach, companies implemented the environmental management system (EMS), which provides a framework to manage environmental impacts and incorporate environmental concerns into decision-making throughout an organization.

More than one in five facilities have implemented EMS, according to a recent survey. In addition, 5,585 facilities have received ISO 14000 certifications that vouch for their compliance with good management practices identified by the International Organization for Standardization (ISO). And some companies are using a range of environmental tools, including environmental auditing and life-cycle analysis. By transferring their environmental expertise to their foreign affiliates and exporting environmentally beneficial technologies, companies are also reducing the global impacts of pollution.

### ***(ii) Energy and business***

Clean-energy industry is one of expanding opportunities and encouraged students to consider it for career opportunities. People with many different backgrounds and skills will be needed "to bring clean energy to billions of people around the world," Affordable renewable technologies, which already are available, can help countries improve social and economic conditions and balance their energy demand in a sustainable manner. As the universe of companies providing environmental solutions has swelled, so has the universe of investors investing in them. A variety of funds are now investing in alternative energy, including exchange-traded funds (ETFs) that invest in alternative energy indices, actively managed mutual funds, and a myriad of private equity funds, many launched in the past two years.

Today, it takes less than half the energy to produce a dollar of economic output as it did in 1970, according to recent research from the American Council for an Energy-Efficient Economy. Over the past 20 years, steel manufacturing has seen an energy-efficiency improvement of 167 percent. The energy efficiency of computer systems has improved an incredible 2.8 million percent. In other words, for as long as companies have manufactured goods, they have looked for ways to lower costs. Renewable energy sources produce much less pollution and global warming gases than other sources of energy. For example, substituting solar or wind power for power from fossil fuels is an essential part of the solution to the global warming problem. Renewable energy is especially important for villages without connections to electric grid. For such villages, solar and wind power can often bring electricity cheaper and with much less pollution than fossil fuels. A conservative estimate shows that just by introducing energy efficient technologies related to cooking and lighting in the Indian households it is possible to mitigate about 110 million tonnes of CO<sub>2</sub> per year. With the introduction of renewable energy technologies, the mitigation potential could be increased significantly.

The first is that there are now many more companies in which environmental investors can invest. According to New Energy Finance in USA, between 1992 and 2002, there were 30 IPOs of alternative energy-related companies raising \$2 billion; in 2003-2004, 29 IPOs raised \$7 billion; in 2005-2006, 92 IPOs raised \$13 billion; and in 2007 alone, 61 IPOs raised \$17 billion. Corporations are beginning to realize that green choices can mean increased profits. Some industry insiders believe that a sudden decrease in energy costs will not necessarily mean the end of the adoption of green technology. What's more, as the United States moves closer to some form of cap and trade (a system that provides economic incentives for pollution reduction), the adoption of green technologies by corporations is bound to increase.

### ***(iii) E-Commerce and business***

The past two years have seen a rise in the number of companies' embracing e-commerce technologies and the Internet in India. Most e-commerce sites have been targeted towards the NRI's with Gift delivery services, books, Audio and videocassettes etc. Major Indian portal sites have also shifted towards e-commerce instead of depending on advertising revenue. The web communities built around these portal sites with content have been effectively targeted to sell everything from event and movie tickets the grocery and computers. In spite of RBI regulations, low Internet usage e-commerce sites have popped up everywhere hawking things like groceries, bakery items, gifts, books, audio & videocassettes, computer etc. None of the major players have been deterred by the low PC penetration and credit card usage in India and have tried to close the success worldwide of online commerce. BPB publication went online selling its complete range of computer books about 2 years ago, it

might not have the success of either Amazon.com or Barnes and Noble. But they definitely have promised the cause of e-commerce in India with at least 1 to 5 web sites like India bookshop coming online.

Currently, the lion's share of current e-commerce revenues is generated from an ever-expanding business to consumer (B2C) rather than business to business (B2B) market. As in the United States, B2C transactions have taken the form of on-line purchases of music, books, discounted airline tickets, and educational resources. In a recent McKinsey-Naccson report, it was estimated that some 80% of e-commerce in India over the next few years could be B2B if the correct environment were developed. The B2B market is expected to increase following greater investment in the Indian telecommunications infrastructure, and once intellectual property rights and legal protections for commerce over the Net are addressed. Nonetheless, everyone from Yahoo, Microsoft, and IBM to local carpet vendors, hotels, and some 300 Indian ISPs are trying to claim a slice of the rapidly emerging Indian e-commerce market. There are still enormous challenges facing e-commerce sites in India.

This is not to say that the e-commerce scenario has been bad in India as highly successful e-business like baba bazaar and India mart have proved. Indian Banks too have been very successful in adapting EC and EDI Technologies to provide customers with real time account status, transfer of funds between current and checking accounts, stop payment facilities. ICICI Bank, Global TRUST BANK AND UTI-Bank also have put their electronic banking over the internet facilities in place for the upcoming e-commerce market. Speed Post also plan to clone the federal express story with online package status at any moment in time. The future does look very bright for e-commerce in India with even the stock exchanges coming online providing an online stock portfolio and status with a fifteen minute delay in prices. The day cannot be far when with RBI regulations we will be able to see stock transfer and sale over the Net with specialized services like Schwab and E\*TRADE.

Though with security and encryption being proven Technologies for transfer of funds over the Internet, the Indian Government still has problems with 'Digital signatures' and verification processes over the Internet. This

combined with RBI norms and regulations has proved to be a major hurdle for e-commerce even though VSNL India's monopolistic ISP does want to jump on to the electronic transaction bandwagon with the advent of private ISPs and India's new and positive attitude towards IT and the prime minister's new 'IT policy' the future is very positive in India for doing e-commerce.

### *The future of E-Commerce*

What does the future hold for e-commerce? Many would say it is difficult to predict. The forces that determine the web's winners and losers are just taking shape and technological advances could add even more uncertainty. On the downside, some experts predict that it will be increasingly difficult for smaller companies to establish their presence. Public companies and traditional brand name retailers have deep pockets and a name recognition that will make it difficult for smaller sites and mom-and-pop shops to attract customers, thereby forcing them to compete with the big boys. On the Net, it's one big neighborhood. On the upside, nearly all experts believe that overall e-commerce will increase exponentially in coming years. Business to business transactions will represent the largest revenue. Online retailing will also enjoy a drastic growth. Areas expected to go include financial services, travel, entertainment and groceries. And for those considering opening a virtual storefront, forthcoming technology and standards agreements will make it easier to create a site, to protect it against payment fraud, and to share information with suppliers and business partners.

### **Conclusion**

It is clear from the above that there is a strong need for addressing the impact, opportunities and challenges before the business world regarding the influence of environment, energy and e-commerce. The academic fraternity, both local and over-seas, will be highly interested to deliberate the issues in the presence of experts both from India and abroad so as to send a message to the rest of the world that what best could be done to the betterment of the existing systems of trade, industry, commerce and business.