UNIT 5

CORPORATE SOCIAL RESPONSIBILITY

- Prof (Dr.) Pavnesh Kumar
- Head of Department
- Department of Management Sciences
- Mahatma Gandhi Central University of Bihar

SOCIAL RESPONSIBILITY OF BUSINESS

- Social responsibility of business implies the obligations of the management of a business enterprise to protect the interests of the society.
- According to the concept of social responsibility the objective of managers for taking business decisions is not merely to maximize profits or shareholders' value but also to serve and protect the interests of other members of a society such as workers, consumers and the community as a whole.

FEW DEFINATIONS :

- "Social responsibility is to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society." —Howard D. Bowen
- "Corporate Social Responsibility is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders." —United Nations Industrial Development Organisation (UNIDO)
- "Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large." —The World Business Council for Sustainable Development (WBCSD).

SIGNIFICANCE OF SOCIAL RESPONSIBILITY FOR A BUSINESS

Long-Term Interest:

- It is in the long-term interest of the business to discharge its social obligations by serving different interest groups such as employees, consumers, government and citizens. Wise business persons know that unless they serve the society by fulfilling its needs, they will not be able to climb the success ladder. Working for the society, stakeholders and government helps an organization in establishing a strong public image. On the other hand, a business organization with vested selfish interests may get ignored by the society.

Indebted to Society:

- A business uses the resources of the society for its functioning. Hence, it becomes obligatory for it to pay back its dues by serving the society. Businessmen should tend to the needs of the society and use its resources for community welfare. This practice ultimately helps the organization in establishing itself on the strong foundation of a pleased society and a cooperative labour force.

Social Power:

- Business persons are endowed with a lot of social power. They have the potential to change the destiny of the population by collectively deciding for the country on crucial issues such as rate of economic progress, distribution of income among different income groups etc. Ideally, business persons should take up social responsibilities in proportion to their social power.
- If the business enterprise misuses its social powers for selfish motives, the society can intervene via government controls and other laws. Therefore, it is morally right for a business to embrace its social obligations and discharge them loyally.

SIGNIFICANCE OF SOCIAL RESPONSIBILITY FOR A BUSINESS

Public Image:

- A business devoted towards fulfilling its social responsibilities is regarded highly by the society. Good rapport with employees, suppliers, customers and government helps in building a favourable public image of the business enterprise. Moreover, a socially responsible organization is considered trustworthy by the shareholders and investors.

Social Awareness:

- These days, employees and customers are more informed about their rights. While consumers expect the seller to abide by the fair trade practices, workers want fair wages and other employee benefits. If the expectations of these interest groups are not met, they may resort to either anti-social activities or seek help from trade unions and consumer courts. This will lead to industrial turmoil and unrest within the society which is harmful for proper functioning of the business.

To Avoid Government Intervention:

- If a business organization fails to acknowledge and perform its social duties, it is bound to lose its freedom and flexibility in the long-run. The Consumer Protection Act and other legislations passed by the government safeguard the interest of the customers against business persons indulging in black-marketing, adulteration, hoarding and many other illegal trade practices. Since, government intervention is not welcomed by business enterprises, social duties should be voluntarily carried out by all the organizations to avoid such situations.

Law and Order:

- A peaceful society is congenial to the expansion of business. Unable to withstand exploitation by the business enterprises, the weaker sections can rebel and take the law and order in their hands. As a result, the survival of the business can be threatened.

SIGNIFICANCE OF SOCIAL RESPONSIBILITY FOR A BUSINESS

Moral Justification:

- A business possesses resources such as finance and talent pool to help bail out troubled masses out of social issues like poverty, dowry, unemployment and illiteracy by organizing special campaigns and programs. Additionally, business houses can assist the government in solving many other issues like lack of foreign exchange etc. Moreover, business organizations increase pollution by releasing untreated sewage into the environment. Thus, it is a moral obligation of the business to render its services in tackling these issues.

Socio-Cultural Norms:

- India has a rich legacy of business values passed down by the legendary and morally upright business owners like Ratan Tata, Azim Premji, etc. Only those business persons who sincerely abide by the canon of business will get the privilege of being honored by the citizens and the government. Hence, the business should aim to promote equal opportunity and maintain healthy inter-personal relations with all the stakeholders such as customers, employees to carve a niche for itself as a honest enterprise.

Trusteeship:

- The great socio-political leader Mahatma Gandhi propounded the philosophy that owners of wealth and property should hold and use the wealth for the welfare of the society. Therefore, company owners should operate the business not only for their own benefit, but also for the prosperity of the society. According to Keith Davis, since business has the resources to resolve the mounting social problems, it should try and assume the social responsibilities.

AREAS OF SOCIAL RESPONSIBILITY

Ernst and Ernst have identified six areas in which corporate social responsibility is expected

Environment:

- This area involves the environmental aspects of production, covering pollution control in the conduct of business operations, prevention or repair of damage to the environment resulting from processing of natural resources and the conservation of natural resources. Corporate social objectives are to found in the abatement of the negative external social effects of industrial production, and in adopting more efficient technologies to minimize the use of irreplaceable resources and the reduction of waste.

Energy:

- This area covers conservation of energy in the conduct of business operations and increasing the energy efficiency of the company's products.

Fair Business Practices (deals with):

- (a) Employment of minorities,
- (b) Advancement of minorities,
- (c) Employment of women,
- (d) Advancement of women,
- (e) Employment of other special interest groups,
- (f) Support for minority business, and
- (g) Socially responsible practices abroad.

AREAS OF SOCIAL RESPONSIBILITY

Human Resources (activities include)
(a) Recruiting practices,
(b) Training programmes,
(c) Experience building-job rotation,
(d) Job enrichment,
(e) Wage and salary levels,
(f) Fringe benefit plans,
(g) Congruence of employee and organizational goals,
(h) Mutual trust and confidence,
(i) Job security, stability of workforce, layoff and recall practices,
(j) Transfer and promotion policies, and
(k) Occupational health.

Community Involvement:

- This area involves community activities, health-related activities, education and the arts and other community activity disclosures.

Products:

- This area concerns the qualitative aspects of the products, for example their utility, life-durability, safety and serviceability, as well as their effect on pollution. Moreover, it includes customer satisfaction, truthfulness in advertising, completeness and clarity of labeling and packaging. Many of these considerations are already important from a marketing point of view. It is clear, however, that the social responsibility aspect of the product contribution extends beyond what is advantageous from a marketing angle.

CSR AMENDMENTS 2019 - COMPANIES ACT 2013

Corporate Social Responsibility was introduced under **Section 135** of the **Companies Act, 2013.** Amongst the various provisions stated by the Act, the Government of India makes it mandatory for a particular class of profitable companies to contribute their share of profits for the cause of social activities through a dedicated procedure prescribed by the CSR rules and regulations. The shares may be contributed towards acts such as the following:

- Eradication of hunger, malnutrition or poverty
- Promotion of healthcare and sanitation
- Offering support for education and employment that can enhance vocational skills
- Encouraging gender equality
- Ensuring sustainability
- Protecting heritage
- Working for the benefits of the country's armed forces
- Fostering and training for sports activities
- Contributing to relief projects

CSR AMENDMENTS 2019 - COMPANIES ACT 2013

The following corporate companies are required to constitute a committee specifically for CSR in order to enforce the policy:

- Companies that have a net worth of INR 500 Crores or more
- Companies having an annual turnover of INR 1,000 Crores or more
- Companies having a net profit of INR 5 Crores or more

Funding

- According to the rules and regulations of Corporate Social Responsibility, the company will be required to set aside an amount equal to 2% of the average net profits of the said company made during the 3 immediately preceding financial years for CSR activities.

WHAT IS GLOBALIZATION

- Globalization is the spread of products, technology, information, and jobs across national borders and cultures. In economic terms, it describes an interdependence of nations around the globe fostered through free trade.

- On the upside, it can raise the standard of living in poor and less developed countries by providing job opportunity, modernization, and improved access to goods and services. On the downside, it can destroy job opportunities in more developed and high-wage countries as the production of goods moves across borders.

- Globalization motives are idealistic, as well as opportunistic, but the development of a global free market has benefited large corporations based in the Western world. Its impact remains mixed for workers, cultures, and small businesses around the globe, in both developed and emerging nations.

GLOBALIZATION EXPLAINED

Corporations gain a competitive advantage on multiple fronts through globalization. They can reduce operating costs by manufacturing abroad. They can buy raw materials more cheaply because of the reduction or removal of tariffs. Most of all, they gain access to millions of new consumers.

Globalization is a social, cultural, political, and legal phenomenon.

- Socially, it leads to greater interaction among various populations.
- Culturally, globalization represents the exchange of ideas, values, and artistic expression among cultures.
- Globalization also represents a trend toward the development of single world culture.
- Politically, globalization has shifted attention to intergovernmental organizations like the United Nations (UN) and the World Trade Organization (WTO).
- Legally, globalization has altered how international law is created and enforced.

KEY TAKEAWAYS

- Globalization has sped up to an unprecedented pace since the 1990s, with public policy changes and communications technology innovations cited as the two main driving factors.
- China and India are among the foremost examples of nations that have benefited from globalization.
- One clear result of globalization is that an economic downturn in one country can create a domino effect through its trade partners.

Globalization Advantages

- Proponents of globalization believe it allows developing countries to catch up to industrialized nations through increased manufacturing, diversification, economic expansion, and improvements in standards of living.
- Outsourcing by companies brings jobs and technology to developing countries. Trade initiatives increase cross-border trading by removing supply-side and trade-related constraints.
- Globalization has advanced social justice on an international scale, and advocates report that it has focused attention on human rights worldwide.

EXPORT AND IMPORT BANK OF INDIA (EXIM)

- ❖The Export and Import Bank of India, popularly known as the EXIM Bank was set up in 1982. It is the principal financial institution in India for foreign and international trade. It was previously a branch of the IDBI, but as the foreign trade sector grew, it was made into an independent body.

- ❖The main function of the Export and Import Bank of India is to provide financial and other assistance to importers and exporters of the country. And it oversees and coordinates the working of other institutions that work in the import-export sector. The ultimate aim is to promote foreign trade activities in the country.

- ❖The management of the EXIM bank is done by a board, headed by the Managing Director. There are 17 other Directors on the board. The whole paid-up capital of the bank (100 crores currently) is subscribed by the Central Government exclusively.

FUNCTIONS OF THE EXIM BANK

1. Finances import and export of goods and services from India
2. It also finances the import and export of goods and services from countries other than India.
3. It finances the import or export of machines and machinery on lease or hires purchase basis as well.
4. Provides refinancing services to banks and other financial institutes for their financing of foreign trade
5. EXIM bank will also provide financial assistance to businesses joining a joint venture in a foreign country.
6. The bank also provides technical and other assistance to importers and exporters. Depending n the country of origin there are a lot of processes and procedures involved in the import-export of goods. The EXIM bank will provide guidance and assistance in administrative matters as well.
7. Undertakes functions of a merchant bank for the importer or exporter in transactions of foreign trade.
8. Will also underwrite shares/debentures/stocks/bonds of companies engaged in foreign trade.
9. Will offer short-term loans or lines of credit to foreign banks and governments.
10. EXIM bank can also provide business advisory services and expert knowledge to Indian exporters in respect of multi-funded projects in foreign countries

IMPORTANCE OF THE EXIM BANK

- Other than providing financial assistance, the Export and Import Bank of India bank is always looking for ways to promote the foreign trade sector in India. In the early 1990s, EXIM introduced a program in India known as the Clusters of Excellence.
- The aim was to improve the quality standards of our imports and exports. It also has a tie-up with the European Bank for Reconstruction and Development. It has agreed to co-finance programs with them in eastern Europe.
- In order to promote exports EXIM bank also has schemes such as production equipment finance program, export marketing finance, vendor development finance, etc.

With a view to promote exports, EXIM Bank has introduced the following three schemes:

1. Production Equipment Finance Programme
2. Export Marketing Finance
3. Export Vendor Development Finance

- Over the period, expansion /diversification programme has claimed the maximum share (54.3%) of EXIM Bank's sanctions, followed by new projects, (33.2%) and modernisation /acquisition of equipment (12.5%).

FDI IN INDIA

- Apart from being a critical driver of economic growth, foreign direct investment (FDI) is a major source of non-debt financial resource for the economic development of India. Foreign companies invest in India to take advantage of relatively lower wages, special investment privileges such as tax exemptions, etc. For a country where foreign investments are being made, it also means achieving technical know-how and generating employment.

- The Indian government's favourable policy regime and robust business environment have ensured that foreign capital keeps flowing into the country. The government has taken many initiatives in recent years such as relaxing FDI norms across sectors such as defence, PSU oil refineries, telecom, power exchanges, and stock exchanges, among others.

MARKET SIZE OF FDI IN INDIA

- According to the Department for Promotion of Industry and Internal Trade (DPIIT), FDI equity inflows in India stood at US$ 446.11 billion during March 2000 to September 2019, indicating that government's effort to improve ease of doing business and relaxation in FDI norms is yielding results.
- FDI equity inflows in India stood at US$ 26.09 billion during April-September 2019. Data for Q2 2019-20 indicates that the service sector attracted the highest FDI equity inflow of US$ 4.45 billion, followed by telecommunications sector - US$ 4.28 billion, computer software and hardware – US$ 4.02 billion, and trading – US$ 2.14 billion.
- During Q2 2019-20, India received the maximum FDI equity inflows from Singapore (US$ 8.01 billion), followed by Mauritius (US$ 6.36 billion), Netherlands (US$ 2.32 billion), USA (US$ 2.15 billion), and Japan (US$ 1.78 billion).

INVESTMENTS/ DEVELOPMENTS

Some of the recent significant FDI announcements are as follows:

- In January 2020, Amazon India announced investment of US$ 1 billion for digitising small and medium businesses and creating one million jobs by 2025.
- In January 2020, Mastercard announced its plans to invest up to US$ 1 billion in India over next five years to double-up its research and development efforts for the Indian market.
- In October 2019, French oil and gas giant Total S.A. have acquired a 37.4 per cent stake in Adani Gas Ltd for Rs 5,662 crore (US$ 810 million) making it the largest Foreign Direct Investment (FDI) in India's city gas distribution (CGD) sector.
- In August 2019, Reliance Industries (RIL) announced one of India's biggest FDI deals, as Saudi Aramco will buy a 20 per cent stake in Reliance's oil-to-chemicals (OTC) business at an enterprise value of US$ 75 billion.
- In October 2018, VMware, a leading software innovating enterprise of US has announced investment of US$ 2 billion in India between by 2023.
- In August 2018, Bharti Airtel received approval of the Government of India for sale of 20 per cent stake in its DTH arm to an America based private equity firm, Warburg Pincus, for around $350 million.

GOVERNMENT INITIATIVES

- In December 2019, government permitted 26 per cent FDI in digital sectors.
- In August 2019, government permitted 100 per cent FDI under the automatic route in coal mining for open sale (as well as in developing allied infrastructure like washeries).
- In Union Budget 2019-20, the government of India proposed opening of FDI in aviation, media (animation, AVGC) and insurance sectors in consultation with all stakeholders.
- 100 per cent FDI is permitted for insurance intermediaries.
- As of February 2019, the Government of India is working on a road map to achieve its goal of US$ 100 billion worth of FDI inflows.
- In February 2019, the Government of India released the Draft National E-Commerce Policy which encourages FDI in the marketplace model of e-commerce. Further, it states that the FDI policy for e-commerce sector has been developed to ensure a level playing field for all participants.
- Government of India is planning to consider 100 per cent FDI in Insurance intermediaries in India to give a boost to the sector and attracting more funds.

GOVERNMENT INITIATIVES

- In December 2018, the Government of India revised FDI rules related to e-commerce. As per the rules 100 per cent FDI is allowed in the marketplace-based model of e-commerce. Also, sales of any vendor through an e-commerce marketplace entity or its group companies have been limited to 25 per cent of the total sales of such vendor.
- In September 2018, the Government of India released the National Digital Communications Policy, 2018 which envisages increasing FDI inflows in the telecommunications sector to US$ 100 billion by 2022.
- In January 2018, Government of India allowed foreign airlines to invest in Air India up to 49 per cent with government approval. The investment cannot exceed 49 per cent directly or indirectly.
- No government approval will be required for FDI up to an extent of 100 per cent in Real Estate Broking Services.
- The Government of India is in talks with stakeholders to further ease foreign direct investment (FDI) in defence under the automatic route to 51 per cent from the current 49 per cent, in order to give a boost to the Make in India initiative and to generate employment.

MULTINATIONAL VS TRANSNATIONAL CORPORATIONS

What is Multinational?

- This is a corporation that has assets and facilities in one or more countries, other than the home country, and has a centralized office where global management is coordinated. Decision making hence affects all the subsidiaries globally.

What is Transnational?

- These are corporations which operate in other countries, other than the home country, and do not have a centralized management system. Decisions are hence made to suit the operating zone. Similar firms operating in other countries cannot be referred to as subsidiaries, since the management system is not centralized. Transnational companies are also not loyal to the operating country's value system, but are focused on business expansion.

Multinational vs **Transnational**

Comparison Table

Characteristics	Multinational	Transnational
Definition	Refers to a corporation that has assets and facilities in one or more countries, other than the home country, and has a centralized office where global management is coordinated	Refers to a corporation which operates in other countries, other than the home country, and do not have a centralized management system
Operations	Have subsidiaries in other countries	Does not have subsidiaries in other countries.

Multinational vs **Transnational**

Comparison Table

Characteristics	Multinational	Transnational
Decision making	Decision making in a multinational is made in the mother country and should be effected in all the subsidiaries globally	Decision making in a transnational is made by individual transnational corporations.
Local markets	Faces restrictions when it comes to local markets since they have centralized management systems.	Are free to make decisions independently based on local markets.

GLOBAL COMPETITIVENESS OF INDIA

Future Readiness

- The Global Competitiveness Index integrates well-established facets with new and emerging drivers that determine productivity and growth of a country. These facets are systematized into 12 pillars, reflecting the level and complexity of the drivers of productivity and the competitiveness ecosystem. The key drivers are Infrastructure; ICT adoption; Macroeconomic stability; Health; Skills; Product market; Labour market; Financial system; Market size; Business dynamism; and Innovation capability.
- India is ranked 58 out of 140 countries on the Global Competitiveness Index of the year 2018. Significantly, a new methodology for the index takes into account future-readiness. This includes adaptability and agility in the context of Industry 4.0. India ranks number 3 in the market size parameter.

Technological Readiness

- India has improved its rank on the Enabling Environment Components pillar of the Global Competitiveness Index.[1] Remarkable performance on the Internet and communications technologies or ICT indicators such as Internet bandwidth per user, mobile phone and broadband subscriptions, and Internet access in schools has helped India reach number 58.

GLOBAL COMPETITIVENESS OF INDIA

Infrastructure Pillar

- India's ranking on the infrastructure pillar of the Global Competitiveness Index improved by 3 places to number 63.[1] The World Economic Forum measures effective modes of transport as well as extensive telecommunications network and electricity supply for this indicator.

Higher Education

- Strides in higher education and training in India have helped the country rise by 42 points in the ranking for this parameter to number 33.[1] This pillar measures enrolment in secondary educational institutions, the quality of education as well as on-the-job opportunities for upskilling, among other things.

Top 50

- India is among the top 50 countries globally on 5 out of 12 pillars measured by the Global Competitiveness Index. The pillars are institutions (rank 47), financial system (rank 35), market size (rank 3), macroeconomic stability (rank 49) and innovation capability

COMPETITIVE ADVANTAGE OF INDIA

- India today is considered to be one of the major forces in the global economic market. Though India is a developing economy, its economy has a major impact on global trading. The majority of the world's leading developed nations are keen to have or expand their ties with India. This is mainly because in the current scenario of globalization India is seen as a wonderland for investments. Thanks to its huge market base and fast-developing spending habits of middle-class Indians, India is a preferred destination for investors over other major countries, including China, because India has a favourable business environment, a good administrative setup, attractive foreign policies, and an available, abundant skilled workforce as well as provides attractive incentives to investors.
- India scores over other places in terms of being an ideal destination for investments mainly due to its vibrant democratic setup, which is aptly underpinned by a broad legal framework and independent judicial system. Apart from these factors, the presence of a vast network of bank branches, financial institutions, and a well-organized capital market contribute to making India a preferred destination over other places by foreign investors.

COMPETITIVE ADVANTAGE OF INDIA

- India boasts a vast network of technical and management institutions that are of the highest international standards. These institutions develop excellent human resources. India also has a strong base of an English-speaking population for business purposes. The strategic location of the country in the context of the third world market in the rapidly growing south-eastern Asian markets along with a supportive infrastructure provides India with a competitive advantage over other countries for attracting foreign investments.

- The government of India has taken several initiatives to attract foreign investments in India's diverse sectors. It has announced a number of attractive schemes and policies from time to time to lure investments. The individual ministries of different industries have made special attempts to ease the rules and regulations related to foreign investment in the industry. Apart from formulating attractive policies for investors the ministry also provides guidance to the investors with regards to the infrastructure availability, the market structure, and so on. The Indian government also allows foreigners to make direct investments in the country's firms by way of acquiring share and debentures. This favourable government initiative gives India an edge over other countries for investments.

ADVANTAGES INDIA OFFERS FOR IT COMPANIES

The Advantages India Offers for IT Companies

- Benefits of Outsourcing to India
- Skilled and inexpensive IT resources
- A thriving software industry, backed by government initiatives
- Helpful initiatives like rationalization of taxes, IT friendly budgets aimed at promoting investment
- Availability of English speaking workforce
- Concrete steps to upgrade the IT infrastructure of India
- The role played by academic institutes that promotes research and innovation
- A stable democracy based on the parliamentary system of governance.
- An independent Judiciary and a free Press.
- Highly developed banking network and financial services.

Apart from the above, some other advantages India offers is market driven economy, huge forex reserves, no legal tangles, Re/dollar parity, continued economic policies, conducive business climate and good ROIs.

WHAT IS TECHNOLOGY TRANSFER

- Technology is information that is put to use in order to accomplish some task. Transfer is the movement of technology via some communication channel from one individual or organization to another. Technology is the useful application of knowledge and expertise into an operation.
- Technology transfer usually involves some source of technology, group which posses specialized technical skills, which transfers the technology to a target group of receptors who do not possess those specialized technical skills, and who therefore cannot create the tool themselves. In the United States especially, the technology transfer experience has pointed to multiple transfer strategies, two of which are the most significant: the licensing of intellectual property rights and extending property rights and technical expertise to developing firms.

The major categories of technology transfer and commercialization involve the transfer of:

- technology codified and embodied in tangible artefacts
- processes for implementing technology
- knowledge and skills that provide the basis for technology and process development.

INFORMATION ACTIVITIES NEEDED TO SUPPORT TECHNOLOGY TRANSFER

- ❑Technology scouting—searching for specific technologies to buy or license.
- ❑Technology marketing—searching for buyers for a technology, the inverse of tech scouting; also searching for collaborators, joint venture or development partners, or for investors or venture capital to fund a specific technology.
- ❑Technology assessment—evaluating technology, aimed at answering the question "what is this technology worth?" Includes research of any intellectual properties, and market and competitor assessments.
- ❑Transfer-related activities—information about the transfer process itself, such as licensing terms and practices, contracts, conducting negotiations, and how to do the transfer most successfully.
- ❑Finding experts—to assist in any of the above areas. A common saying in the field is, "technology transfer is a contact sport."

MECHANISMS FOR TRANSFERRING TECHNOLOGY

- Licensing—the exchange of access to a technology and perhaps associated skills from one company for a regular stream of cash flows from another.
- Cross-licensing—an agreement between two firms to allow each other use of or access to specific technologies owned by the firms.
- Strategic supplier agreement—a long-term supply contract, including guarantees of future purchases and greater integration of activity than a casual market relationship. One prominent example is the second-source agreements signed between semiconductor chip manufacturers.
- Contract R&D—an agreement under which one company or organization, which generally specializes in research, conducts research in a specific area on behalf of a sponsoring firm.
- Joint or cooperative R&D agreement—an agreement under which two or more companies agree to cooperate in a specific area of R&D or a specific project, coordinating research tasks across the partner firms and with sharing of research results.
- R&D corporation or research joint venture—the establishment of a separate organization, jointly owned by two or more companies, which conducts research on behalf of its owners. A notable example is Bellcore, which originally was established by the seven Regional Bell Holding Companies of the United States and which would conduct research and set standards for the local telephone system.
- Research consortium—any organization with multiple members formed to conduct joint research in a broad area, often in its own facilities and using personnel on loan from member firms and/or direct hires. The Microelectronics and Computer Technology Corporation (MCC) and Semiconductor Manufacturing Technology (SEMATECH) are examples of such organizations.

APPROPRIATE TECHNOLOGY

- **Appropriate technology** is a movement (and its manifestations) encompassing technological choice and application that is small-scale, affordable by locals, decentralized, labor-intensive, energy-efficient, environmentally sound, and locally autonomous. It was originally articulated as **intermediate technology** by the economist Ernst Friedrich "Fritz" Schumacher in his work *Small Is Beautiful.* Both Schumacher and many modern-day proponents of appropriate technology also emphasize the technology as people-centered.

- Appropriate technology is most commonly discussed in its relationship to economic development and as an alternative to technology transfer of more capital-intensive technology from industrialized nations to developing countries. However, appropriate technology movements can be found in both developing and developed countries. In developed countries, the appropriate technology movement grew out of the energy crisis of the 1970s and focuses mainly on environmental and sustainability issues. Today the idea is multifaceted; in some contexts, appropriate technology can be described as the simplest level of technology that can achieve the intended purpose, whereas in others, it can refer to engineering that takes adequate consideration of social and environmental ramifications. The facets are connected through robustness and sustainable living.

STAGES OF TECHNOLOGY ADOPTION

- **Innovators (2.5%)** – Innovators are the first individuals to adopt an innovation. Innovators are willing to take risks, youngest in age, have the highest social class, have great financial lucidity, very social and have closest contact to scientific sources and interaction with other innovators. Risk tolerance has them adopting technologies which may ultimately fail. Financial resources help absorb these failures.
- **Early Adopters (13.5%)** – This is the second fastest category of individuals who adopt an innovation. These individuals have the highest degree of opinion leadership among the other adopter categories. Early adopters are typically younger in age, have a higher social status, have more financial lucidity, advanced education, and are more socially forward than late adopters. More discrete in adoption choices than innovators. Realize judicious choice of adoption will help them maintain central communication position.
- **Early Majority (34%)** – Individuals in this category adopt an innovation after a varying degree of time. This time of adoption is significantly longer than the innovators and early adopters. Early Majority tend to be slower in the adoption process, have above average social status, contact with early adopters, and seldom hold positions of opinion leadership in a system

STAGES OF TECHNOLOGY ADOPTION

- **Late Majority (34%)** – Individuals in this category will adopt an innovation after the average member of the society. These individuals approach an innovation with a high degree of skepticism and after the majority of society has adopted the innovation. Late Majority are typically skeptical about an innovation, have below average social status, very little financial lucidity, in contact with others in late majority and early majority, very little opinion leadership.
- **Laggards (16%)** – Individuals in this category are the last to adopt an innovation. Unlike some of the previous categories, individuals in this category show little to no opinion leadership. These individuals typically have an aversion to change-agents and tend to be advanced in age. Laggards typically tend to be focused on "traditions", likely to have lowest social status, lowest financial fluidity, be oldest of all other adopters, in contact with only family and close friends, very little to no opinion leadership.

TECHNOLOGY ADOPTION GRAPH