INTRODUCTION -

Globalization is a complex concept that involves political, economic and socio-cultural orders and has created new global ideologies. Globalization is a multifaceted word that does not refer to a single notion, but can be characterized as a systematic integration of commercial, cultural and technological advancements. The information and communication revolution is one of the most important factors in globalization, and has changed people’s relations and the relative meaning of time and space, reducing communicative distance, demolishing physical boundaries while increasing relations between people, governments and cultures. Through information and communication technologies, substantial populations on earth are exposed to foreign cultures and ideas and feel the threat of losing their national and religious identities (Neyestani & McInturuff, 2006).

Globalization is not new. For thousands of years, people and organizations have been buying and selling to each other in lands at great distances, such as through the Silk Road across Central Asia that connected China and Europe during the Middle Ages. Likewise, for centuries, people and corporations have invested in enterprises in other countries. In fact, many of the features of the current wave of globalization are similar to those prevailing before the outbreak of the First World War in 1914. In the recent few decades policy and technological developments have started increase in cross-border trade, investment, and migration. This gave rise to the new trends in the world market economy which had the impact of liberalization, privatization and globalization wave. Globalization has caused the onward march of ICT and has brought the global community closer. ICT in the globalization context is about global knowledge, access, participation and governance in the information age. It has radically changed our views about boundaries between organizations and boundaries within the organization (Dhameja & Medury, www.unpan1.un.org).
The information era has the potential to influence every aspect of our lives at the individual and societal levels. It redefines the manner in which the common citizens evaluate the delivery of public services and also their role in a democratic society. The concept of “Global Village” had shed its mystical form and is fast emerging as a reality.

Information and communication technology (ICT) is a driving factor in the process of globalization. Improvements in the early 1990s in computer hardware, software, and telecommunications have caused widespread improvements in access to information and economic potential. These advances have facilitated efficiency gains in all sectors of the economy. IT provides the communication network that facilitates the expansion of products, ideas, and resources among nations and among people regardless of geographic location. Creating efficient and effective channels to exchange information, IT has been the catalyst for global integration (http://www.globalenvision.org/library/7/970) (http://www.academia.edu/1934625/Role_of_Technology_in_Globalization_with_reference_to_Business_Continuity)

The main driving forces of globalization of the world’s economy are:

- Due to technological advancement time and space has ceased to exist.
- e-Commerce, e-business and e-banking have replace the old trend of doing business with the new online business models making full use of technology.
- Large pools of skilled and quality human resources
- Dramatic fall in international telecommunication cost.
- Government bodies changing their mind sets and promoting privatization of various sectors especially in India
Definition and nature of globalization –

Globalization can be defined as a process by which businesses or other organizations develop international influence or start operating on an international scale ([http://www.oxforddictionaries.com/definition/english/globalization](http://www.oxforddictionaries.com/definition/english/globalization)). It can be said to be a process by which the experience of everyday life, marked by the diffusion of commodities and ideas, is becoming standardized around the world. Factors that have contributed to globalization include increasingly sophisticated communications and transportation technologies and services, mass migration and the movement of peoples, a level of economic activity that has outgrown national markets through industrial combinations and commercial groupings that cross national frontiers, and international agreements that reduce the cost of doing business in foreign countries. Globalization offers huge potential profits to companies and nations but has been complicated by widely differing expectations, standards of living, cultures and values, and legal systems as well as unexpected global cause-and-effect linkages ([http://www.merriam-webster.com/dictionary/globalization](http://www.merriam-webster.com/dictionary/globalization)).

Globalization is a process of interaction and integration among the people, companies, and governments of different nations, a process driven by international trade and investment and aided by information technology. This process has effects on the environment, on culture, on political systems, on economic development and prosperity, and on human physical well-being in societies around the world.

This current wave of globalization has been driven by policies that have opened economies domestically and internationally. In the years since the Second World War, and especially during the past two decades, many governments have adopted free-market economic systems, vastly increasing their own productive potential and creating myriad new opportunities for international trade and investment. Governments also have negotiated dramatic reductions in barriers to commerce and have established international agreements to promote trade in goods, services, and investment. Taking advantage of new opportunities in foreign markets, corporations have built foreign factories and established production and marketing arrangements.
with foreign partners. A defining feature of globalization, therefore, is an international industrial and financial business structure.

Technology has been the other principal driver of globalization. Advances in information and communication technology have transformed economic life of consumers, investors, businesses. It has led to identification of new economic opportunities, include faster and more informed analyses of economic trends around the world, easy transfers of assets, and collaboration with far-flung partners.

Globalization is deeply controversial, however. Proponents of globalization argue that it allows poor countries and their citizens to develop economically and raise their standards of living, while opponents of globalization claim that the creation of an unfettered international free market has benefited multinational corporations in the Western world at the expense of local enterprises, local cultures, and common people. Resistance to globalization has therefore taken shape both at a popular and at a governmental level as people and governments try to manage the flow of capital, labor, goods, and ideas that constitute the current wave of globalization (http://www.globalization101.org/what-is-globalization/).

**Forces of ICT driving globalization**

The following key ICT related factors are driving globalization (Source: Hajela, 2005):

i. **Complexity and enormity of products and services** – The costs, risks and complexity involved in the production process for many industries require a minimum effective market size larger than that of the domestic market.

ii. **Organizations moving from hierarchical to network organizational structures**

   Networks are replacing hierarchies in the basic organizational structures. The non-centralized character of networks distributes the authority exercised by any discrete geographic entity. Team working in different countries in a network contributes to the efficient making of the final product, each using their core skills.

iii. **Integration of market and cyberspace** – The integration of market to cyberspace renders geographic space redundant as a basis of effective economic governance. Workflow software allows individuals and teams geographically far apart working on different components of a product to collaborate by working in parallel and produce the
final product more efficiently. ICT enables the organization of such collaborative efforts that employs core competencies economically and efficiently, wherever they may be.

eiv. **Open source software** – Open source software, developed as a result of a collective intellect of peers, downloadable free with source code has further given impetus to globalization.

ev. **Transfer from the physical domain to the digital domain** – ICT, in particular the internet, enables the shift in value of products and services from the physical to the digital domain. The strong growth of computing devices used throughout the business processes is tilting the balance from the physical to the digital domain. The measure of digital domain is the degree to which a product or service can be digitized or stored in a computer.

vi. **New business models** – The internet also has the potential to create new business models and bring about changes in the value chain. E-Commerce, all transactions in information, trade in goods and services including financial services as well as government and social services over the internet interactively and instantly have given rise to several new and innovative business models. Transaction efficiency and access to suppliers of products and services anywhere by buyers located anywhere in the world form the basis.

vii. **Internet’s effect on markets and products** – The effect of the internet on globalization as a driver for markets depends on:

   i. The degree to which a product or service can be digitized

   ii. The transaction efficiency

   iii. The extent to which products or services could be globalized using the internet.
Role of ICT in managing globalization:

ICT has created a new paradigm for personal, local, domestic, regional and international trade and investment. The World Trade Organization (WTO), the World Intellectual Property Organization (WIPO) and other international institutions provide the legal framework for its use. ICT has facilitated business processes such as outsourcing, off-shoring, supply-chain networking, in-sourcing etc. which have all aided the globalization process. Depending on the level of the development of ICT infrastructure and access to the internet, the impact on globalization may vary considerably in different countries. Key factors for the role of ICT in globalization are:

i. Information – globalization will drive the development of products and services with higher information value and be driven by it.

ii. Network access and ICT infrastructure – the penetration and growth of internet access through wire-line or wireless will determine the timing and extent of globalization.

iii. Economies of scope – the ability to alter the traditional value chain with consequent economic advantage will drive the globalization of the industry.

iv. Language / culture – the effective use of the internet in different languages and cultural settings will be a strong driver for globalization.

v. Facilitating FDI – ICT has facilitated the growth for foreign direct investment (FDI) allowing global business management along the whole supply chain through effective information and communication networks. While motivation for foreign direct investment (FDI) in developing countries and countries with economies in transition has been mainly of the resource-seeking kind, the availability of ICT infrastructure and Skills has played an important role for FDI of the efficiency seeking kind, i.e. FDI which is export oriented based on low labour and other relate costs.

vi. ICT allows process and product innovation, creates new factors of production helping economic restructuring and transition, and provides a new means of organizing activities through its synergy with other technologies, thus changing the classical view of managing business operations. Decentralization, outsourcing, off-shoring of business activities from research and development to manufacturing and business processes have all been made possible by ICT. Countries with large domestic markets also represent potential for market-seeking FDI catering to domestic demand.
India amongst the BRIC Nations (A Comparison):

Among the BRIC Nations consisting of Brazil, Russia, China and India, India has been the fastest growing market adding over 18 million internet users and growing at an annual rate of 41%. India is also among the top 3 fastest growing markets worldwide in the last 12 months. China added over 14 million internet users to reach 336 million internet users by the end of July 2012. Russia and India have shown similar trends in online usage patterns along with similarities in e-Commerce and payment types.

Figure 7.1: Internet users among BRIC countries

Source: State of e-Commerce in India A Research report by comScore for ASSOCHM, India, September 2012.

Reasons for globalization:

The following are some of the reasons for globalization:

- fewer trade and investment restrictions and lowering of tariffs,
- decline in transport and communication costs,
- rise of the tertiary economy and growth of service industries,
- expansion of trade in merchandise and services,
- growth in foreign direct investment (FDI) and private capital flows,
- expansion of market-seeking and efficiency-seeking operations of transnational corporations (TNCs) through FDI, mergers and acquisitions,
- advances in science and technology, including ICT, and the rise of the internet,
- the “tradability revolution” – making services directly tradable and allowing “integrated production networks”,
• importance of skill and knowledge-based industries and the role of knowledge in total productivity and economic growth,
• business process outsourcing of corporate service functions,
• widespread democratization, and movement from “command and control” to “market-oriented” economies,
• importance of international organizations like World Trade Organisation and trade blocks making “rules of the game”, and
• growth of global social and political networks.

The above stated factors along with the market forces, have given rise to today’s technology driven, knowledge-based and increasingly integrated world economy. Information and communication technology (ICT) has played a key role in globalization and integration. It has facilitated the heralding of a “Third Wave”, comparable to the first wave of agricultural revolution, second wave of industrial revolution. The world is shifting from a manufacturing-based industrial economy to a service-dominated and network-based knowledge economy. Trade in services, powered by ICT, is increasing too. The spread of ICT and the Internet are among the most distinguishing features of the new globalizing world. The World Wide Web is becoming an epitome of the global society and has emerged as a symbol of globalization.

Information and communication technology (ICT) is emerging as an important catalyst for transformation of business, society, and government in the globalizing world. Today ICT is the backbone of several industries, such as banking, airlines, publishing etc. and also working as an important value-added component of consumer products, such as television, camera, car, mobile telephone etc. ICT has facilitated packaging of information and sending the same across the world at negligible cost. The new technology has increased the velocity of international business operations, division of labor, and integration of production processes. ICT has revolutionized the interactions between government, business and citizens – G2B, G2C and B2C, G2G, B2B and C2C operations. The Internet is regarded as one of the most revolutionary transformations that world trade has ever seen. It has enabled trade in services by allowing them to be split into components, each of which can be located where it can be produced most efficiently and at the least cost. It is no longer necessary for providers and users to be physically close to each other. As a result, IT-enabled services are increasingly globalizing in the same way
as manufactures did for decades. ICT has led to a shift in trade from atoms to bits, a movement from tangibles to intangibles, from manufactures to services, and a transition from the industrial world to the information world.

Information and communication technology has brought in a new era of managerial innovation and productivity. ICT has enabled many of the most important process and product innovations in the last decade. It is emerging as an effective tool to achieve performance improvement at the level of the firm, industry and economy. It has been instrumental in improving operations, enabling redesigning of business systems, and creating new opportunities. Companies are using ICT to improve systems and processes, streamline existing processes, and spread efficiency. They are differentiating innovative products and creating value networks.
Impact of globalization:

The most beneficial impact of globalization is in the form of outsourcing of work. This helps the companies to cut costs. In the ICT sector, outsourcing has acquired an international dimension. US firms find it more profitable to contract IT software and services in developing countries like India and China. The costs for these services in developing countries are much less than in the developed world. A recent study by McKinsey has estimated that every dollar spent on off-shoring (outsourcing) implies a cost reduction of 58 cents to US business. Thus US firms and those in the European Union regularly carry out contracts with IT firms in India. As per information compiled in the Reserve Bank of India Bulletin (August, 2008), during 2007-08, net earnings from software services for India were of the order of US $ 42.5 billion. Merchandise export accounted for 158.5 billion; software services represented 27% of total exports. This was a big achievement by the Indian IT industry as it proved its competitive strength to the world.

The basic question which has been raised in India and in several other developing countries is: whereas the advocates of globalization emphasize removal of all barriers to trade on goods and services, but whenever their interests appear to be affected by global competition, they protect their interests either through heavy subsidies or they create other kinds of barriers such as labour standards, patent rights etc. In other words, nationalism takes over globalism. Such being the case, the anti-outsourcing law goes against the spirit of WTO and goals of globalization (Datt & Mahajan, 2013).

Challenges before globalization

There is also another emerging issue. ICT has greatly facilitated the flow of information to governments. This often outpaces the capacity of governments to process, assimilate and address it. The governments face an environment where increasing volumes of information are transmitted more rapidly and more widely than ever before. They are finding it difficult to use this growing volume of data. The management of ICT is itself a big challenge for governments and public servants. A critically important requirement to harness the power of ICT for improving governance is to enhance the capacity of public institutions and civil servants to make use of information to their advantage. Building e-governance capabilities is essential to harness the power of new technology.
International cooperation is another key challenge that national governments face. Such cooperation, supported by international institutions and pluralistic decision-making, can help countries in several ways to secure greater benefits from domestic policies. Shared commitments and coordinated approaches can avoid beggar-thy-neighbor policies, address international spillovers, curb the abuse of market power, lessen transaction costs, reduce information asymmetries, promote technology transfer, and assist in capacity building. It can play a valuable role in augmenting investment, infrastructure and human capital in low-income countries.

Equity in the international economic order is a key issue. Many of the poorest countries remain marginal in spite of impressive macro gains from globalization. The affluent countries need to be persuaded to share a small gain from their globalization proceeds for those left out of the mainstream. Developing countries have to fight for a just and equitable global order.

The challenge of the state in a fast-globalizing and high technology world is to serve both as a conduit for the forces of change and a catalyst to promote, absorb and manage change. Governments have a crucial role to play in connecting what is happening globally to what is needed locally. They need to interpret and communicate to citizens the implications of globalization for public policy decisions. They must assist citizens and business to reconcile and combine global imperatives and local interests. Governments have to strike a balance between harnessing the advantages of globalization and providing a secure and stable social and economic domestic environment for growth and poverty reduction. Globalization is making governance more complex and challenging by bringing in new political, social, technological and institutional complexities in addition to economic opportunities (Mohanty, Centre for Good Governance, Hyderabad).

**Role of ICT in the globalization of firms:**

A major driver of globalization is technological progress. The rise and commercialization of the Internet and the maturing of information and communication technologies (ICT) are making organizations’ business environments increasingly more international, and as a consequence also their communication and business processes (Bicak, 2005). ICT encompasses the full range of the production, distribution, and consumption of information, across all media from radio and television to satellites and the Internet. The information revolution facilitated the shift from analogue to digital technologies; convergence merges computers, telecommunication,
television, and the Internet into a single multimedia environment (Wilson III, 1998, p. 6). The radical development of ICT is an essential factor for the continuing globalization of organizations’ political, social, and economical environments. The most significant factor is the continuous development of the Internet and the WWW as the fundamental infrastructure for e-commerce (Wilson III, 1998). The Internet has become known as the “global network of networks” or “global information infrastructure”.

Knowledge and innovation have taken a quantitative jump over the last decade in the wake of the “explosion” of ICT, the globalization process, and dramatic advances in the life, materials, and energy sciences. These developments have led to new industries and new services, as well as to the renewal of established ones (Aubert & Reiffers, 2003). Industry boundaries are easily crossed as value chains are being redefined (Amit & Zott, 2001). The knowledge economy develops high-tech industries, particularly in ICT and services (Amit & Zott, 2001). The development and diffusion of ICT is a prerequisite and facilitator of globalization and the transformation into a knowledge-based economy. The most significant advancement in recent times is the emergence of the Internet and the subsequent evolution of electronic commerce (Melewar & Stead, 2002).

ICT has supported, facilitated and provided impetus for global business development (Nelson & Clark, 1994). ICT is both a catalyst for globalization and a solution base from which to address international main challenges. ICT can provide the strongest link in the business chain of partners, products and suppliers and is the basis for doing business around the clock and around the world (Deans & Kane, 1992). The development of ICT induces the following:

1. Increase in the transparency of information in global market and activities
2. Decrease in cost of information, facilitating global activities for an increasing number of firms
3. Increase in the speed and volume of the communication, both internally and externally, making coordination of globally dispersed activities much easier.

On balance, technological change has shifted the fundamental emphasis away from computing towards communication and coordination of activities (Sampler, 1996). ICT reduces
transaction and coordination costs in all forms of organization, increases productivity and accelerates the dynamics of innovation. ICT affects the cost and efficiency of the external marketplace (Blaine & Roche, 2000). ICT has the potential to dramatically reduce market imperfections and lowers transaction costs and coordination costs (Blaine & Bower, 2000). The combination of the evolution of cross-border networking and the increasing use of ICT also has far-reaching implications for the study of industry dynamics as the structures of value-added chains are changing and even boundaries between industries are blurring. ICT increases boundary spanning. The tremendous advances in ICT are leading to an entirely different type of industrial structure with mutually beneficial cooperations and networking (Roche, 2000).

In most industries, supply chains become more elastic and flexible. The reconstitution and diffusion of the core activities across a number of global industries (e.g., automotive, financial services) are marked by ICT-induced dynamics. However, ICT will not eliminate the importance of distance and location, and in fact in some cases makes proximity and clustering even more important. Due to the globalization of local markets and the emergence of the global electronic markets, worldwide acquisitions and cooperation strategies gain importance (Bicak, 2005).

Within organizations, electronic technologies are stimulating changes in productivity, management practices, and corporate culture. By enabling instantaneous communication, ICTs allow firms to coordinate and control actions in distant locations, thus expanding the potential reach of the firm. They also lower transactions costs and facilitate networking. The Internet provides the possibility of distributed project teams, pooling of expertise worldwide and communicating electronically, rather than being bound to a single physical location. ICT drives internal and external change by increasing the information-processing capacity and increases environmental complexity as well as the internal decision-making capacity. In order to manage high levels of uncertainty, various sub-units are driven toward greater differentiation and specialization. This in turn forces firms to develop strong integrative mechanisms. ICT supports both the standardization of products and the coordination of business processes across border (Schober, 1993). ICT thus can improve the efficiency of business processes (Blaine & Bower, 2000). Externally, by linking intranets to the Internet, organizations are beginning to integrate their internal operations more closely with their vendors, partners, and customers (Bollier, 1998). ICT can support vertical quasi-integration, outsourcing, and quasi-diversification—all being cooperative modes. For example, “virtual consulting” can now often be provided from lower-
cost countries. Auction style markets such as www.guru.com are developing in which individuals post their skills and are then hired by companies and consulting firms to complete a specific project. ICT allows much more cost-efficient monitoring of cooperative arrangements. The value of the network even increases with the network size.

Influence of ICT on the Internationalization Capability

Internationalization of a social system can be conceived as changes in its geographical or cultural extension. Both changes in the extension of the meaning and the action system may induce internationalization. Global media have provided the basis for a general internationalization of meaning systems. More important, however, is the internationalization of system-specific meaning. In a strict sense, internationalization only takes place, when also the activity system is subject to changes in the geographical and/or cultural extension. Studies by Schulte (2002) and Borghoff and Schulte (2003) showed that internationalizing firms often do not have a symmetrical behavior in this regard. The studies indicated that firms often build activity structures abroad without sufficient adaptation of the meaning structure or vice versa. Internationalization literally induces changes in the system’s boundaries and its relationship with its environment. In the case of expansion, environmental complexity increases, inducing an increase of the system’s internal complexity and requisite variety as well. Jarvenpaa and Ives (1993) observed that ICT can drive global business. ICT is an essential ingredient for business expansion, providing strategic competitive advantage in worldwide markets and facilitating globalization (Palvia, 1997). It also serves as a magnifier of business competitive strategy and as a vehicle for building new strategies and new businesses. ICT thus also facilitate the development and implementation of global strategy as these require obtaining and processing of data about overseas markets that are related to company resources (Melewar & Stead, 2002). The use of ICT has enabled many companies to expand their international presence and international trading capabilities.

Internationalization leads to larger scope of international activities. Quality, scope, and variety of information increase (Blaine & Roche, 2000). It was stated that any export, licensing or foreign direct investment decision involves acquiring information about distant markets, assessing consumer needs in different cultural settings, evaluating the relative efficacy of alternative entry strategies, and coordinating activities across all elements of the value chain and across markets. All of these acts are severely affected by the monumental changes in the
availability and cost of information that characterized the last decade. Global strategy requires obtaining and processing of data about overseas markets that are related to company resources, particular finance, marketing, and production (Melewar & Stead, 2002). The networking capability of ICT therefore enhances the international orientation of firms significantly (Lal, 1996). Given that ICT can delimit the firm strategy, ICT issues can shape the global strategy of the firm. The means of introduction and expansion in new markets or the defense strategies against competitive pressures can be interrelated to ICT utilization and development choices.

The use of the Internet tends to expand the geographic market, bringing many more companies into competition with one another (Porter, 2003). The Internet enables potential customers and organizations to enter virtually different parts of the world. An organization can use the Internet as an inexpensive tool for advertising, booking orders, promoting their philosophies, and communicating with their customers all over the world (Bicak, 2005). The Internet has dramatically reduced the costs of “point to multi-point” communication, making it far easier for brokers and other information providers to supply information to their customers. In addition, it provides real time immediacy of information Melewar and Stead (2002). The Internet holds the potential of reducing the uncertainty that adheres to doing business in foreign markets and thus accelerates the internationalization process. The Internet may even reverse the role of knowledge as a limiting factor to that of a catalyst. On the other hand there is the danger of information overload and over-confidence (Petersen, Pederson, & Sharma, 2003). International connectivity and linkage between incubators provide network externalities and increase the business activities of small firms internationally (Samii, 2004).

The collection of information on the international business environment, the development of international contacts, and overseas travel are costly and difficult to undertake. Lack of knowledge in itself is a factor of deterrence for entering into the global market. ICT have facilitated these activities by reducing the costs and making information available. Traditionally, the main sources of initial contact for many firms were costly trade shows, now they establish contacts via web pages and search engines (Samii, 2004). ICT seems to be an especially important source for international market information and a tool in overcoming communication barriers. The amount and availability of information can increase the likelihood that management will consider internationalization a promising strategy for firm growth. Information from the Internet also allows for the cross-validation of market information and thereby reduces the risks
involved with market entry when the firm does not possess experiential market knowledge (Aspelund & Moen, 2004; Yeoh, 2000).

The Internet enables firms to identify new market opportunities leading to business expansion. Specifically, it allows SMEs to gain deeper knowledge of target markets, to select suppliers and to establish direct contact with clients using a low cost medium. The Internet makes it easier for firms to expand internationally (Nieto & Fernandez, 2006). Due to access to information about markets, a firm finds itself in a better position to meet the segment needs of specific clients and to tailor its products and services to conform those needs. Similarly, the Internet reduces the entry barriers to international markets, which in turn encourages the firm’s international expansion and minimizes the importance of the local market (Nieto & Fernandez, 2006).

Previous research has identified recent advances in ICT as a trend that presumably facilitates the process of introducing new products to international markets but little empirical work has been conducted to establish the dynamics behind this relationship (Aspelund & Moen, 2004). ICT-intensive firms internationalize faster and more extensively than less ICT-intensive firms (Aspelund & Moen, 2004). There is a widespread assumption that internationalization processes now are much faster than in 1970, but there is few empirical proof for that. Due to decreasing transport and communication costs, the international distribution of value-added activities increasingly matches the relative comparative advantage of each geographic location (Petersen et al., 2003). ICT brings extended connectivity with speed and will expand boundaries of firms and networks (Samii, 2004). ICT facilitates the immediate development of global activities by using e-commerce and cooperations so that the globalization path of many firms will be accelerated (Berchthold, 1997).

The Internet increases international exposure dramatically. It may be good for market skimming e.g., unsolicited orders) but not necessarily to further penetrate the markets (Petersen et al., 2003). E-commerce is a vital tool for helping firms globalize. The Web provides a new sales channel, gives companies global reach and is far less expensive than alternative modes. Successful multinationals are using ICT to build the capability to quickly assemble forces at a needed location in order to overwhelm the competition. ICT needs to vary with the nature of the business and the entry modes. ICT can also be used to make rapid market penetration. The role of ICT in international business becomes one of assisting in getting rapid market penetration.
This could mean anything from helping in the rollout of a national network to providing support for a new chain of stores. The important competitive advantage of the ICT side is the ability to respond quickly to emerging businesses conditions. Thus, it would be useful to gather examples of cases in which ICT has been used as the primary way to penetrate a foreign market (Roche, 2000).

ICT is also increasingly used as a competitive weapon to create market entry barriers, to extend rather than augment product offerings, to differentiate firm services, and to create switching costs. Another critical role for ICT is to allow projecting competitive advantage into foreign markets (Roche, 2000). However, there are no studies indicating the long-term effect of ICT on the internationalization process.

The Internet provides several advantages for the internationalization of firms. Internet strategies are relatively inexpensive, especially when compared to direct exports and e-commerce transactions allow firms to have a bigger market control with respect to indirect exports. ICT will facilitate strategies that target cross-national consumer segments. Web marketing thus has to some extent evened out the playing field between large and small companies (Samii, 2004). ICT also reduces large firms’ advantages of centralized purchasing and in-house suppliers. Technological changes have resulted in smaller production runs, increasing the feasibility of product changes and allowing small, specialized firms to exploit fragmented product markets on the basis of their flexible response.

Despite a comprehensive literature in the area of internationalization there is a gap in research in the development of global structures which are characterized by the worldwide networking and differentiated allocation of activities, knowledge, competencies, and resources across dispersed organizational units. This applies particularly to the influence of ICT on this process.

**Benefits of globalization:**

**Increase in Knowledge:** with the quickening and intensifying flows of information and communication, people can now access more information from all over the world, all from the comfort of home.

**Cheaper Products:** the speeding up of flows of transportation and communication along allows companies to search around the globe for the least expensive labor and manufacturing costs.

Increased
Competition: with the shift from Euro-centrism, trade occurs between all countries, leading to similar products coming from all different parts of the world, so companies have to continually keep up with global trends and changes in order to stay competitive in their market.

The other major benefits of globalization include:

- Access to knowledge and services from all round the world.
- Increased job opportunities.
- Raise in labor prices by increasing productivity.
- Improvement in the technology can lead to cheaper and more efficient working methodology.
- The company is not restricted in one country alone.
- No mediator is required to run the business online.

**Drawbacks**

**Lower wages:** companies can now search all across the globe for the lowest priced labor so in some cases you will receive lower wages for a job that should be paying a higher rate.

**Higher Discrepancy between the rich and poor:** the ones who are able to take advantage of all that globalization has to offer are the people who have the money to take advantage of it, unfortunately for the ones with little or no money are left in a cycle of poverty because they can not afford to utilize the benefits of globalization.

**Destruction of local industries:** in some cases companies take advantage of cheap labor in certain locations, which destroys local industries because these local companies can not compete with wages larger multinational companies offer (Malhotra, 2009).

The other major drawbacks are:

- The leading industrialized countries have been benefited by globalization. The poor countries have not gained much from globalization.

- Rich countries are generating more contents in the Internet; it becomes a form of cultural imperialism in which western values usually dominate.

- Globalization is creating gaps between the rich and the poor.
Technological advances that lead to globalization -

1) Rise of the Personal Computer – The rise of the personal computers (PC), removed the barrier of information dissemination that was restricting globalization. The PC allowed individuals to make their own digital content and share them with places all around the world. This gave individuals both reach and scale for creating and distributing information in different ways and send it to people around the world.

2) Invention of the World Wide Web – The greatest influence on the progression of globalization was the invention of the World Wide Web. Before the World Wide Web, we had the internet which connected the globe, but with the World Wide Web individuals were able to post their own digital content for anyone across the globe to see. A recent study claims that the rise in Internet use both by companies and in the population at large accelerated the pace of globalization( Yip, 2000). The internet accelerated the progress of globalization because it allows sharing of knowledge and information almost instantaneously across the globe.

3) Fiber-Optic Cables – The first fiber-optic cable system was implemented in 1977, made of pure glass arranged in bundles that could be used to carry digitized packets of information. The most important benefit of the fiber-optic cable is that it has a much higher bandwidth signal capacity than other types of transmission cables.. Telecom companies saw a huge opportunity for investment in fiber-optic cables, as they felt that with the rise of the internet, people will be needing increased speed and bandwidth. As popularity continued to grow and advances on the cables continued, the capacity allowed by these cables continued to grow, making it even cheaper and easier to transmit information and digital content to any part of the world.

4) Creation of Work Flow Software – Work flow software is software packages that automates business procedures as well as communicate workflows, such as documents, information, tasks, etc. from one employee to another. When work flow software was first adopted, it enabled employees in different locations in the same company to collaborate, manage and design business data that had previously had to be handled manually. For facilitation of transference of files various protocols and softwares like SMTP, HTML, TCP/IP etc. were developed. The workflow softwares supported with transmission protocols led the organizations to be more effective, fast, efficient and communicate across geographical boundaries.

5) Open-Sourcing - Open sourcing is community-driven software where companies and individuals make their source code available online, so that others could contribute to their work
and in turn their software programs benefited because of it. If a company makes a new software product and they make it open-source, the company is gaining knowledge and expertise from specialists located anywhere around the globe for free. This has led to increase capacity, innovation and empowerment to the individual located anywhere across the globe.

6) Supply Chaining- Supply chain is a method of integrating horizontally between suppliers, retailers and customers to create value for the company. The strength of supply chain is the foundation of successful models of e-commerce. Supply chaining has influenced globalization because as supply chains grow, the more global standards are needed, and as standards increase they begin to eliminate border frictions and as companies begin to feed off other companies, it creates a global collaboration for all to share. Globalization also helps companies build their supply chains as companies can find both the best producers as well as the lowest prices around the globe. In that sense supply chaining helps progress globalization as well, because now companies from countries all over the world can find and sell products from countries all over the world, the movement away from Euro-centrism as discussed before. Globalization’s trend towards greater integration of mature and emerging markets and economic policies correlates with information technology’s ability to create standardization of global computing platforms (Stephens, 1999).

7) Digital, Mobile, Personal and Virtual Movement – More recently the world has been filled with ICT devices like smart phones, digital cameras, personal computers, laptop etc. which is having a profound effect on the progression of globalization. With the growing popularity of these types of technologies individuals and companies are able to collaborate with one another more frequently and in so many more ways than ever before. There are technologies such as instant messaging that allow people to communicate instantaneously, and they can be located anywhere around the world as long as they have a running internet connection and a messaging service. In this way companies can communicate with clients and employees who are around the world and give them the latest news that they may need to know in order to do business with clients or other companies. ICT has become the driving force behind globalization and has become an integral part of an organization’s business strategy. The technology provides the means by which can move into the global marketplace (Lawlor, 2007).
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