Chapter 15

Globalization Processes and Information Systems

We live in a world in which many boundaries have been brought down. This is a result of globalization processes that have unfolded in the past twenty-five years. Initiated by economic drivers, globalization created global flows of supplies, products, and money. However, globalization has had contradictory effects, making some people richer and others poorer. Although it has been opposed, globalization continues and shapes the environment for organizations in every country. Globalization would not be possible without modern IT and telecommunications. This chapter explores some basic concepts of globalization, the role of IT in it, and a new organizational form that thrives in the globalized world—trans-national corporation. This topic is related to e-commerce, supply chain, and various types of IS.

Globalization

Globalization is the process of reducing economic and other boundaries between countries. Examples of economic boundaries are government regulations over imports and financial markets, conditions for setting up business by foreign investors, limitations to foreign ownership over production resources, and barriers to the entry of foreign labor. Globalization removed or reduced many of these barriers.

Bringing down economic boundaries has been accompanied by softening of cultural boundaries. There are international flows of the entertainment content (music, film, TV), fashion, cuisines, and lifestyles. The direction is mainly from the west and north to the east and south, and to a lesser extent in the opposite direction. The same goes for global flows of news and political commentary carried out by global news agencies. The Internet and social media increasingly play a part in both the cultural and news channels. These exchanges can reinforce economic globalization.

Globalization started with economic changes in China in the 1970s. The changes were symbolized by the famous slogan “one country—two systems,” which was promoted as the official ideology of the ruling party. China opened to foreign investment and the market economy. Changes in East Europe followed the suit twenty years later. In 1989, the Berlin Wall was taken down, symbolizing the beginning of these changes. In contrast to China, however, significant political reforms were undertaken as well. These changes resulted in a common European market and a body of governing institutions called European Union.
The process of globalization we witness may be understood as another cycle of the old dream of doing business without borders (see window Silk Road to Internet). What makes this globalization attempt unique is an unprecedented combination of technological and economic forces.

**Globalization Pros and Cons**

Globalization has produced contradictory effects so far. Economies in transition have experienced growth. This is particularly true for China, and to some degree for East Europe and India. New enterprises and markets emerged and the purchasing power of certain social groups has increased. But on the con side, enterprises closed down creating unemployment, tough foreign competition emerged, and a sharper social differentiation surfaced in new market economies.

Although some developing countries benefit from globalization, 50% of the world population still lives on less than $2 a day. While lagging behind in economic development, the African continent has remained outside main globalization flows, except for Chinese investments in some African countries.

In developed economies, big corporations keep investing in and benefit from offshore production. But masses of working people face a job loss and reduced wages. The middle class shrinks in the West, and there is less money for public spending (education, health care, retirement, and public services).

That sources of informing and learning are globally accessible via the Internet can be taken as another pro for globalization. But the related con is that a digital divide is widening between developing and developed countries. This divide is about possessing IT and Internet computers.

Figure 1 shows Internet penetration rates in the World and in Africa at the end of 2013. (This rate is a proportion of Internet users over the total population.) Differences are apparent around the world, with North America having four times the rate of Africa. Whereas Africa is on
the other side of the global digital divide, differences within it indicate an even larger continental digital divide. Of the top 10 countries, Nigeria has a 10 or more times higher penetration rate than the bottom four countries.

Figure 1. Digital divide in the world and in Africa

Yet another pro/con controversy has to do with the Internet. Some observers believe that the Internet creates a level playing field or makes the world flat. Critics point out that this is not an absolute upside since the players are very different in their economic and technological capabilities. For example, one cannot simply set up any online store and expect that customers will come to it as they do to the established digital brands.

The financial industry is a great beneficiary of globalization, and particularly its centers in which financial power is concentrated. The money in electronic form can be promptly moved around the world to make new investments. A banking business is much easier to set up technologically than, say, manufacturing: since banking is about data manipulation, its technology is computers and telecommunications networks. In contrast, manufacturing needs machinery and special facilities, which can take years to build. But the global mobility of banking business also implies that entire countries can be promptly dried up of investments at first signals of an economic slowdown.

Finally, there is a hope that the content richness and search opportunities associated with the Internet deliver universal benefits for business and overall well-being of the human race. But equally convincing is the counter-argument that differences in cultures make such benefits
relative rather than absolute. For example, some of the easily searchable Internet merchandise may be indecent and destructive to particular cultures.

Globalization has delivered contradictory results so far.

**Trans-National Corporation**

Trans-National Corporation (TNC) is a company that performs the sourcing, R+D, production, and sales processes globally (see Figure 2). TNC is the globalization-maker on the business side. To be sure, globalization makers are also governments, non-governmental organizations, and various regulatory agencies.

TNC facilities and operations are dispersed around the globe. It sources, produces, sells, and does R+D wherever it is most lucrative to do so. TNC creates product and technological knowledge by combining decentralized and centralized approaches. The R+D work is performed wherever the expertise and practical needs exist as well as at a specialized corporate unit. New knowledge is then moved across locations wherever it is needed.

Differentiate TNC from a multi-national corporation (MNC). A MNC may sell globally, but its R+D and production may be centralized. Such a MNC is a powerful exporter but not yet a TNC.
The key enabler of this highly dispersed organization lies in various IS and computer networks (private networks and the Internet) that make TNC tick. These are at the nexus of the TNC model in Figure 2. TNC uses all types of IS, including communication systems, GSS, ERPS, DSS, and KWS. Note that the basic processes can be at different locations in the world. Electronic IT and systems perform the necessary linking function between distributed processes. Global monitoring of the processes and business is made possible with networked ERPS. As business is continually tracked on each location, integrating the local views to a corporate level is the job of data warehouses (see Chapter 14). In the case of TNC, the data warehouse may be a regional or global aggregator of the data managed by local ERPS. Moreover, KWS support the superior knowledge capability of TNC (see below). Since the electronic IT is so indispensable for TNC and the overall global market economy, sociologist Manuel Castells characterized this historical stage as “informational capitalism.”

TNC operates in various industries, including manufacturing, finance, drugs, consulting, software, and news media. For example, Nike sources globally materials and parts, runs production in different countries, and sells around the world. IBM does the same and has lately been focused on India in production operations. J.P. Morgan, Bank of America, Deutsche Bank, and HSBC are financial firms that have offices around the world and lend the money globally. The financial industry has a close fit with electronic flows of global economy since the money is represented in the electronic format and can be moved at an instant. CNN has permanent reporters and informants in many countries, produces news at any locale of interest, and sells its programs globally via cable TV.

The central role of TNC in globalization is visible in its presence, revenues, and impact. For the presence aspect, Nike is a good example as it is apparently a globally present symbol of athletic shoes for all customer groups. Similarly, the American cable news provider CNN is watched around the globe equally by both rulers and by those who try to overturn them. As for revenues, TNC’s earnings can exceed the GDP of entire countries. For example, in 2013 the annual revenue of Ford was bigger than the individual GDP (gross domestic product) of each of the 50 African countries but the top four. Put another way, Ford’s revenues equaled the combined GDP of 24 African countries lined up in the lower part of the GDP list. From the impact perspective, a TNC is usually the largest employer in a local economy. A TNC impacts on politics and legislation, while competing local businesses have to engage in the TNC’s supply chain or risk perishing.

TNC has special capabilities. These are:
- Global Efficiency
- Local Responsiveness
- Superior Knowledge.

*Global efficiency* means that the TNC treats the world as a single space working everywhere with the same efficiency. This is possible due to standardizing the technological platform, business processes, and management across TNC locations.
A TNC is *responsive to local market needs*, although the planning and production processes are at many locations. An example of this is modifying a product to fit a local market in features, price, or some other aspect. Unilever is an example of such a company, which has differentiated its personal hygiene and care products based on the level of development of consumer markets.

Note that an export-focused company selling in many countries must also run efficient production processes. But it may lack the local market responsiveness. An example is Apple. In contrast, a multi-national corporation has such responsiveness, but the problem is that it may be lacking on the efficiency side. Country-based units of a MNC may grow their own ways of production without benefitting from the experiences of other country units. A TNC overcomes both shortcomings and is both globally efficient and locally responsive. IBM is an example.

The TNC is *superior in knowledge management*. Its R+D function is distributed across the world, bringing in local talent and insight. This distributed intelligence is more capable of coming up with innovative products than a single centralized R+D function in a typical MNC is. However, the challenge is to coordinate knowledge development in a distributed fashion. Once knowledge is developed, it is shared via KWS to everywhere it may be needed. Adapting innovations to local needs subsequently follows up.

To be sustainable in a globalized TNC-driven economy, a company needs to be able to do business with or to compete with TNC. A benefit of getting into a TNC’s supply chain is in securing access to global markets. But to engage with a TNC, a firm must have a proper technological capability based on various modern information systems and a computer networking capability.

**Questions for Review and Study**

1. What is globalization, and what role do electronic IT and IS play in it?
2. What are the pros and cons of globalization from the perspective of electronic IT and IS?
3. What is digital divide? Give an example of it.
4. Describe the model of TNC and give two examples of it.
5. What are the special capabilities of TNC?