Industrial development and globalization

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ABSTRACT

This research investigates aspects and role of industry and technology in globalization process. With regard to the used basics and theories, globalization is generated from industrial revolution and then expansion of global trade and economy, and it has reached its peak by revolution of information and communications technology. On the other hand, globalization phenomenon affects technology extension and industrial development in different societies. The research method is descriptive, and required data have been gathered from library and archives references.

Keywords: Globalization, Industrialization

INTRODUCTION

Globalization is a manifest feature of 21st century. Globalization has found objectivity after the collapse of communism and bipolar system and finally the end of Cold War (Ghavam, 2007). This phenomenon has been propounded by various concepts such as internationalization, globalization, liberalization, westernization and deterritorialization. A group of scholars consider this phenomenon new while, another group considers it as a stage of earlier stages evolution which steps toward the societies progress, opportunities extension and achieving available and unknown resources and facilities of the world. With all views about this phenomenon, the fact is that, this phenomenon has a significant effect on the countries development in all aspects and shows its positive or negative impact based on the type of its facing with. During the recent years, a significant increase has been observed in the number, variety and consolidation of cross-border phenomena such as the emergence and development of the communications industries, growth of multinational companies, impact of global financial markets, acts of international organizations in various fields, increasing dozens of nongovernmental actors and their participation in community decision-making authority and etc. Globalization affects all spheres of human activity and
achievements including: community, government, manufacturing and industry, science, security, peace, justice and global environment, and has caused to change the way people think and perceive the social, economic, political and cultural relations and has had a significant influence on human life and communications, production type and communicational, technology and economic relations of the societies. Since industrial revolution, technology has been always as main tool to expand cooperation in the international arena. The tasks industrialization has increased the goods accessibility and the amount of exchanges via making it easier as well as mass production. Having an efficient and advanced transportation system is the first step to create an efficient economy. Development and progression in communication industry and information revolution occurrence in 20th century and consequently globalization of the mass media such as internet, fax, cellular phone and satellite have been a milestone in the development of political, economic and cultural cooperation of various societies. With regard to the effect of globalization on the industrial activities and on the other hand, the effect of industrial development on the globalization, in the current text, understanding of the of globalization and its basic concepts are firstly discussed and in continue, industrialization of the societies and its bidirectional communication with globalization are investigated.

Theoretical basics (operational definition of the concepts)

- Globalization

There is no consensus among scholars and theorists about globalization and each one has defined it according to their interpretation from social phenomena and environmental impacts. In Arab literature, the words “Al oulamah” and “Alkowkabah” are used for globalization (Alhemadi, 2002); (Fust 2007). Globalization is considered as trends based on which social communications relatively lose their link with land geography so that, the human life game is performed increasingly in the world wide as a unit place (Bernel & Rendal, 2008). In some definitions of globalization, economic aspect and in some other, political, communicational or technological aspects are more considered. Hence, providing a complete and accepted definition is a difficult task. Pundits consider the lack of consensus about this definition and conceptualization of globalization as a result of its complicated and conflicting nature. Some people who have investigated the globalization in term of economic and also International Money Fund (IMF) which is consider as an effective organization on globalization process, have defined the globalization as growing economic cooperation of all the world countries through increasing the commodity and services interactions and its variety and international funds current and ease of access to it throughout the world (Pishgah Hadian, 2001). Another group considers the globalization as a process which causes to disappear political boundaries, increases of convergence rate between the societies and institutes, expansion and ease of data transfer between the world countries and elimination of spatial and temporal conditions. Raberston considers that, the globalization as a concept which is observer on compression of the world and increased of global awareness, and is a process which has caused global interdependence and awareness about the world as an integrated totality in 21st century. Praton has defined the globalization as a multi-aspect phenomenon which has found its way to various contexts of social, economic, political, military, technology, industry and environment acts (Kiani, 2001). Some other researchers
consider globalization as a phenomenon and say that, globalization is as a result of European culture expansion through migration, colonization and cultural imitation to all the world. Therefore, each social system should organize its situation against the west capitalist world for its stability. Robert Cox believes that, the globalization trend characteristics include the internationalization of production, the new international division of labor, new migrant from South to North, and a new environment (Albro, 2002). In other definitions, globalization has been introduced as "the gap between space and time", "the publication process and technology and its influence on the social life of the community people" and extension of communications in the world, socially being organized in global reach and consistency of the global community (Albro, 2002). Despite the differences about globalization definitions “increase of the societies communications to each other and increase of possibility of being effective on other societies decisions” is undeniable about globalization (Tavassoli, 2002).

- **Industrialization**

The phrase “industrialization” mentions continuous economic progression which has been created by use of non-living power supply to mechanize the production. At the beginning, industrialization was as manufacturing production but, then extended to agriculture and services too. Industrialization has caused specialized work division, new social relations of production between the capital owners, managers and labors, urbanization and geographical concentration of population and industry, and changes in occupational structures (Tavakoli, 2011). Industry phenomenon has caused changes and influences in human political, social, and cultural fields. In terms of having access to industrial phenomenon, societies are divided to three types of society including pre-industrial, industrial and postindustrial society (Scaffer & Iamm, 1992). Pre-industrial society also is divided to: hunting and gathering societies with very low levels of technology, very little and non-specialized work division, Palizkar with production of some agricultural industries and low level technology, value creation and formation of some social differentiations and work division, and the last stage of agricultural society with promotion of some novelties such as plows, repairing fishing nets, permanent residence and etc. Temporally, pre-industrial period encompasses from prehistory until the Industrial Revolution in England, about 1800 AD (Tavakoli, 2011). Industrial society is based on mechanization of economic commodity production and services. This mechanization has affected and changed all human aspects including economic, social, cultural and political. Industrialization process of the Eastern Europe and Northern America was accomplished during 1815-1914 interval but, the rate of industrialization was significantly different in each society. The emergence of a unified national government, formation and production for trade and exchange, Dominate mechanized production and to organize manufacturing production, conversion of agricultural economy to industrial economy, urbanization expansion, specialized work division, elevated levels of public education, institutionalization of politics and voting, application of science in all areas of life, formation of two types of economic systems of capitalism and socialism were the traits of this society.

Progress in all sciences and industries such as printing, glass, shipbuilding, mining and metals production industries and utilization of chemistry science and etc. have a significant impact on other multilateral progress and totally has created industrial revolution complex which More or
less spread to all countries. The basis of postindustrial society is to produce information and knowledge, and social relations are based on social and civic values (Huberman, 2002). Fundamental changes in occupational structure of industrial societies and change of occupational structure from production to industrial services has forced the social scientists to name advanced countries as postindustrial society (Tavakoli, 2011).

- **Investigation of different views about globalization**

The word “globalization” was used for the first time for development plan which emerged in economic sphere. Then, on the way of economic issues, it was used for other issues such as drugs and terrorism with which numerous nations were faced. Following the dramatic changes that occurred in the field of IT and technology, a current was created of which the emergence of global market was the first consequence (Tehranian et al., 2002). In the late years of 1960s, the range of globalization spread and to cultural, political and social spheres of the nations’ life and affected them as a result of revolution, communications industry and global work division (Tavasoli, 2002). Some Neo-marxists such as “Andevend Frank” and "Immanuel Wallerstein" believe that, globalization process began when global system started and it backs to 2500 years before Christ returns. In fact, they say about 50 years global system and consequently 5000 years history of globalization process. Some writers such as Wilkinson consider the globalization history as the history of world civilization which began 1500 years before Christ and from Ancient Egypt and Sumerian civilization. Also, Mazrooei identifies the first signs of globalization process in civilization of Islam and Ancient East. Some other theorists believe that, globalization is rooted in capitalism system. Despite accepting more rapid and broader globalization process in recent decades, they consider it much older. They believe that, free market economic system is the oldest type of economy in the human society. Although socialism has left its effects on the global economic system and has caused capitalism to be challenging, but, with the collapse of the East Bloc, the Americans were able to achieve two important results including lack of intellect in the political system and the lack of power in the world. The U.S. officials dealing with these shortages pretended that, the origin and roots of capitalism will be persistent and victor. They considered Soviet collapse as the sign of capitalism system legitimacy and stimulated a new desire for globalization so that, globalization found a broader range since the beginning of 1990s. Since then, creation of a new political structure in the worlds was proposed within which the U.S. placed as the only superpower at the head and so, globalization entered the political area and consequently the world faced with two issues; firstly, geopolitical movement to make changes in political structure of the world and creation of a new unipolar system and secondly, expansion of free market which helped amplifying the first change (Mojtahedzadeh, 2000). This group including Walterstein and Raberston believe that, globalization is rooted in 16th century and then, industrial revolution which has reached its peak and nowadays, has led to achieve new effects and results. Globalization has entered the technology, communications, policy and culture spheres. Another group of writers consider the beginning of globalization process as a result of modernity. Some people such as "Giddens" and "Joseph Nye" believe that, modernity has a global nature. These people also believe that, globalization is not parallel with modernity but also is the result of modern age and its necessities complex which is the general feature of an open society. Globalization causes generalization of the human freedom, civil society and human rights (Nasri,
A number of these theorists believe that, globalization process began with the modernity forming, for instance, Giddens considers the globalization as modernity expansion. Marx and Engels also mention that, both globalization history and its beginning require understanding the capitalism history since, in their opinion, the capitalism system has been always involved in global economic and cultural integration.

- Globalization aspects and its relation with industrialization

Globalization has various aspects and layers among which economic, socio-political, cultural, scientific and industrial aspects have different nature and specific importance. Here, scientific and industrial aspects are investigated. Technological developments have played an important role in creating ultramundane social spaces. Inventions of the telegraph in 1837, the telephone in 1876, wireless in 1895, the aircraft in 1903, television in 1926, liquid-fueled rocket in 1927, cable television in 1930, and digital computer in 1946 are important events in the early period of globalization. Also invention of Chlorofluorocarbons in 1931 led to global destruction of the ozone layer (Schulte, 2003). Further development of these technologies has led to an acceleration of globalization since 1950. For example, a transistor radio was invented in 1955. TV capability rose by innovation of cable, satellite and digital technologies, etc. Continuous advances in technology and telecommunications also has provided the essential tools for global communications, international financial transactions, production coordination, global marketing and other global activities. After the aviation and electronic communications, information processing is another important field of technological innovation which has increased the globalization rate. International financial transactions, production and industry growth and particularly world management depend on broad mechanized information management. One of the most important factors of globalization progress is mass industrial production and consequently thriving trade between the countries and increasing role of multinational corporations and a collection of industrial, service and information companies with diverse activities. This factor was formed regardless of geographical boundaries and governments policy. For instance, World Trade Organization (WTO) expresses in terms of the globalization of industrial economy in current conditions. This organization has been generated from globalization of financial markets and their expansion, binding contracts for the countries, globalization of the economy, increasing expansion of advanced industries and global productions, free trade and broad movement of commodities among the boundaries (Alhemadi, 2002). Globalization has left its influences on the culture, policy and industrial activities, and this trend will continue. Expansion of investment trade, international dependences, financial markets, international competition of globalization, institutional activities and internationalization of production and formation of industrial organizing system can be mentioned as the globalization traits that each of them has affected the activities and industrial progress path of the world countries (Alviri, 2011). Following these cases, rapid developments occurred in information and communication technology. Some topics such as global progress in the production of various kinds of computers and software, their generalization and becoming cheaper and mass communications expansion have reached a stage by which it can be concluded that, we are in globalization process. In addition, revolution and expansion of communicational industries have led to the people interaction become possible easily (Tavasoli, 2002). Scientific revolution,
technical knowledge, communications and manpower not only are the main driver of globalization but also, the globalization and industrial development and technical knowledge rebound are considered as impartible sides of a coin. Through scientific and industrial progressions in this period, the rate of inventions and discoveries increases, and science and technological revolution will become a concentrated power by which the future and priorities variations of the countries can be explained. The countries and societies which can achieve this power, would be able to organize and recover themselves in addition to be successful in the quality of governance and influencing others and political, social, cultural, economic and military affairs management (Alhemadi, 2002). Therefore, technological innovations have provided a large part of the globalization bases and on the other hand, globalization process also has affected positively the industrial transmission particularly in industrial productions and information technology to all communities of the world.

Results and conclusion

Globalization and industrial development are correlated. Scientific and industrial revolution, technical knowledge, information, communications and manpower are the main drivers of globalization. Through scientific and industrial progressions in this period, the rate of inventions and discoveries increases, and science and technological revolution will become a concentrated power by which the future and priorities variations of the countries can be explained. The countries and societies which can achieve this power, would be able to organize and recover themselves in addition to be successful in the quality of governance and influencing others and political, social, cultural, economic and military affairs management. If industrial development of Iran becomes compatible with global developments and necessities, there will be effective consequences including: firstly, the ways to attract international capital will be smooth, secondly, moving up to date and modern technology will be possible and easy, thirdly, Iran will be placed in the world trade cycle of industrial goods and has to compete, fourthly, use of international political space and decrease of regional tensions will be possible for Iran. So, it would be hoped that Iran could be on the way in which can find an appropriate place consistent with its abilities in the world today. Therefore, by realistic and systematic attempt to understand the globalization and the correct foresight and targeted research and development of industrial activities, the suitable preparations can be provided for proper use of the opportunities and positive consequences of globalization. Hence it is suggested that, research centers and universities focus on the industrial development and globalization and present needed strategies to use them for industrial development of Iran and progress in other tasks. According to Mitelman’s word, if globalization is a historical structure, its study also needs historical thinking (Moshirzadeh, 2010).

REFERENCES


