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Globalization and Global Innovations
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1. Introduction

One of the main phenomena to which societies are confronted and that has influenced all aspects of social life of people living in the earth is globalization. Globalization is a multi-facet phenomenon which leads to disappearance of the borders between economic, social, cultural and political relations and shapes a modern relation and communication between nations (within countries and among countries).

Due to the significance of this phenomenon in the life, it has been the focus of the attention of scholars so that most scholars consider globalization as a factor for development, welfare and integration among nations which lead to the distribution of global benefits among people. Despite this perspective, some theorists consider it a discriminative force which makes the poor, poorer and the rich, richer. In their views, many people of developed and advanced counties would benefit of globalization while developing and undeveloped countries would drop behind developed countries due to lack of facilities to compete in this area.

So based on this, the proponents of globalization consider it as a positive phenomenon in all respects and the opponents consider it as the destructive factor of regional and national cultures due to overcoming the capitalism and the increase in economic and political dimensions. Because of this, the consequences of globalization on different aspects of human life and different matters lead to dissolution of interpretations.

The aim of this chapter is to examine the relation of globalization and innovation. So first the concept of globalization and its origin are reviewed and then for better investigation of this relation, the effect of globalization on different aspects of innovation would be analyzed. The authors believe that globalization reduces innovation following the reduction of variety in different aspects of the society including economic, social, political and cultural dimensions and inclination toward integration and unification and it has negative effect on innovation.

2. The concept of globalization

The term "globalization" has not a clear meaning and different definitions are provided to it under the influence of ideological backgrounds of researchers. Some consider globalization the same as communication revolution, other has considered it as a form of post-modernism and some other has regarded it as a new form of states without border. The optimistic view toward this phenomenon has considered it as a factor for growth, peace and friendship and
the proximity of nations, also abundance of blessings and the pessimistic view equals it to crisis poverty and the disappearance of weak communities and unequal competition (Alvani, 2004).

Abushouk (2006) has classified the provided definitions for globalization into five groups considering the points which have been confirmed it them:
The first definition considers globalization synonymous with internationalization assuming that globalization leads to closer relation between nations within the framework of flowing of trade and investment and easier and faster communications (Hirst and Thompson, 1996). However this definition has been criticized by some scholars such as Jan Art Scholte. He believes that cross-border relation between nations has existed long before the term "globalization" entered in international relation dictionary. Based on it, such definition does not provide a convincing meaning of globalization.

The second definition considers globalization as de-terrorization and liberalization and describes it as an integration process of international economy and reduction of legal limitation of import and export of goods, services, cash and financial tools. In this view, globalization refers to a movement in nations which leads to liberalization of negotiations between them and other nations and creates a borderless space for economic and financial affairs (Sander, 1996).

On the other hand, critics of this definition reject the general identity of these two terms (globalization and liberalization) and argue that this integration process for connecting the nations has appeared long before, especially at the time when imperial powers of Europe preserved their control on third- world countries (Abushouk, 2006).

Third definition assumes globalization as universalization; the proponents of this definition consider globalization as the process of spreading the topics, experiences and values all over the worlds and between people living in the earth (Abushouk, 2006; Alvani, 2004). In other words, the universalization informs of the combination of cultures and the experiences of people. In confirmation of samples globalization is referred to as the spreading of TV, automobile and etc. and the same trends of life and government of organizations. However some critics have criticized this definition. They argue that the transcontinental spreading of religions and trades have been long before globalization. So that the term "Universality" is proper for describing the spread of experiences and values and it should be confined to new global activities which have emerged from second half of the 20th century (Abushouk, 2006).

The forth definition regards globalization as synonymous with westernization and modernization and considers it as the dynamic factor which mentions the development of modernized social structure (capitalism, rationalism, industrialization, bureaucracy) and destructs non-westernized nations' identities and cultures. As an evidence for globalization Hollywood culture and McDonald fast food restaurant can be mentioned.

The critics of this definition describe the spread of such western values under concepts such as colonization, westernization and modernization. In this area there is no need to create the term "globalization" for describing western ideas and values in third world countries (Khor, 1996).

The fifth definition is offered by Jan Art Scholte. He defines globalization as deterritorilization. In this definition the geographical borders disappear and lose their significance. The social space is not defined within the traditional borders and geographical borders change and they would become super-territorial.
The above-mentioned definitions are among the most common definitions of globalization, each of which view globalization from a particular perspective. Although all of them suggest that a governing and organizing method would be created in form of comprehensive globalization which includes all powers which direct the world toward global village, reduce the distances, make convergence in cultures and reduce political borders. As Mazrouei (2002) asserts globalization is "Villagization of the World".

3. The origin of globalization

Historically, globalization is not a new phenomenon but its changes can be investigated in terms of scale, speed and cognition (Kinnvall, 2004). Within scale framework, economic, political and social relation between nations have become more than before. Globalization has experienced a kind of temporal and spatial compression in terms of speed which had not experienced it before. Within the framework of cognition it considers the globe as a smaller space where every phenomenon and event has some consequences on economic, social and political life (Kinnvall, 2004).

This means de-territorialization of time and space which affects our lives (Kinnvall, 2004). Anyway, the term globalization has been offered and coined by Reiser and Davise in 1994 and it becomes a catchword for most scholars from all parts of the world after collapse of Soviet Union and the end of cold war in late 20th century (Abushouk, 2006). In the 1970s, this term developed as "Global Village" which reflected the progress of technology which has made the international exchanges and trade easier and faster.

The publication of War and Peace in the Global Village written by Marshall McLuhan and Berjinski propagated the term globalization formally in 1970. In addition, the political and economic agreements after world war provided the ground for international collaboration and became the leader of globalization. The establishment of United Nations Union in 1945 and the proceeding economic and political agreements, the establishment of International Monetary Fund, General Agreement on Tariff and Trade and its first negotiation with 23 other participating countries in 1947 all have provided the ground for globalization. On the other hand, the establishment of some organizations such as World Trade Organization and the joining of countries to this organization are considered as the start of accepting globalization. Especially the wonderful growth of technology in some areas such as transportation, telecommunication and more importantly, informatics revolution in 80s and following spread of internet and network provided proper tools for development of this phenomenon.

4. Theoretical perspectives toward globalization

Different views have been offered about globalization. Farazmand (2001) in his paper entitled "Globalization, The State and Public Administration, A Theoretical Analysis with Policy Implication for Development States" has provided four theoretical perspectives for globalization. The first perspective is an optimistic one; the optimistic proponents of globalization speak of its advantages. While the critics and opponents refer to its negative consequences, the destructive effects that can influence the life of majority of people. For example, the proponents assert that the growth of transnational collaboration develops
global capitalism in which the states are considered indifferent or improper and they create a de-territorialized world whose characteristic is mutual dependency, general order and governance of market. Thomas Friedman, the proponent of globalization, regards it as "herd" which directs all matters with its unique method and nothing can stop it (Farazmand, 2001). In his view, this phenomenon is not a choice but a fact. Farazmand (2001) refers to this fact that resistance toward globalization would charge huge costs. He believes that states can resist it but they would incur huge costs.

The second view is a critical one and in contrast with globalization. The opponents of globalization warn against the consequences and the negative effects of this phenomenon on national economy, human values, the benefits of democratic communities, national government and especially on third world countries (Farazmand, 2001). This group of opponents of globalization focuses on the vanishing and destruction of civil power, financial crisis in developing countries; governance crisis and economic problem (see Mele, 1996; Cox, 1993; Brecher and Costello, 1994; Kregel, 1998).

The third view refers to the fact that globalization would make the nations and states stay in their governing position. According to this view, globalization is an unavoidable fact and it is improper to fear it. Some socialists (such as Hirst and Thompson, 1996; Zysman, 1996) who believe in this idea, consider the negative consequences and effects of globalization less significance and argue that globalization would not decrease the power of nations. In fact, states would be more powerful in local and international areas (Farazmand, 2001).

However, Farazmand believes that the fourth view about globalization provides deeper analysis of this phenomenon. According to this view, even realists-pragmatists agree with the idea that globalization has important and considerable effects on the identity and characteristics of nations and states. Those theorists, who support this view, argue that globalization has positive/ negative effects on the economy of states and nations through changing world economy and with domination of transnational companies that has organizational, political and financial power (Farazmand, 1994).

This phenomenon can be examined from different perspectives considering different views toward globalization and different views toward globalization phenomenon.

5. Dimensions of globalization

It is worth noting that globalization is not a one-dimensional phenomenon. It has different dimensions and it can be divided into several complicated and interrelated dimensions (Hsiao and Wan, 2007; And United Nations, 2000). These dimensions have been examined from different aspects in several researches.

For example, Andreas Theophanous, 2011 has referred to four dimensions of globalization in his paper: 1. Economic, 2. Political. 3. Social and 4. Cultural. These four dimensions include different factors such as communications, transportation, technology, population mobility and life style.

Furthermore, he asserts that the consequence of each factor might be related to more than one dimension. For example, we make use of a particular dimension, in the first view, it might have economic applications, and meanwhile the technology affects the production, employment and the use of standard and life style (Theophanous, 2011). Robert Kcohance and Joseph Nye (2000) have also distinguished four dimensions of globalization that are
economic, military, cultural and social (Taylor, 2005). In this chapter, these four dimensions have been considered and examined in detail.

6. Economic dimension

In definition of globalization, economic perspective is of great importance and is dominant in contrast to political, scientific, cultural and social dimensions (Krasner, 1976). The reason is the evolution of this dimension of globalization rather than other dimensions and time priority. This is why globalization is viewed mostly from economic point of view. The origin of economy globalization and its development is Breton Woods conference in 1944. However, the economy crisis of the 1970s facilitated globalization through creation of new drivers in neoliberal economic ideology and increase of Regan and Thatcher powers. On the other hand, advances in technology that reduced the transportation and communication costs reinforced this trend (Tiemstra, 2007). One of the other significant factors in development of economic globalization is the role of multinational companies and the emergence of networks of companies (Crevoisier, 1999) which act independent of particular geographical areas or state's policies (Ollapally, 1993).

Globalization is composed of two sub-processes from economic dimension (Oppenhein, 2003): the first one is the merging of distinct and isolated parts of global system which includes the spread of active forces and capital all over the world. Free trade agreements are the main part of this process due to the fact that they make legislation which facilitates the flow of work and capital. The second process is development of communication including telecommunication, internet etc. which facilitate the flow of labor and capital.

The agreement on free trade is the main part of this process due to the fact that they make some regulations which facilitate the flow of labor and capital. The second process is the development of communications including telecommunication, internet etc. that all facilitate the intra-national and international relations. Multifaceted trade agreements such as The Genera Tariff And Trade GATT negotiation have led to the formation and construction of World Trade Organization, The North American Free Trade Area and recently, Free Trade Area of Americas, all are part of globalization process (Farazmand, 1999a, b, 2005).

In economic dimension, one of the fundamental goals of globalization is the destruction of economic borders and removal of legal barriers and creation of free market system in a way that make the capitals flow freely. The other point in economic dimension of globalization is the removal of custom duties' barriers and globalization of competitions. Fukuyama and Huntington are among the proponents of globalization. They consider globalization as a process that leads to evolution and generalization of modern capitalism (Mir, Mohammadi, 2002).

6.1 Political dimension

Globalization as a political phenomenon means that the construction of political plays is not determined within distinct and independent units (independent organized structures and hierarchy of states). Therefore, that globalization is the process of political structuration. Political globalization is the reconstruction of political experiences and institutionalized structures for coordinating and removing the deficiencies of state (Cerny, 1997).

In political dimension, the state as the welfare provider has been removed from most communities under the influence of globalization and because of the reduction of state's
collaboration in economic section. New groups and leaders have emerged for creating welfare and security. Such leaders are challenging for states and governments (Kinnvall, 2004).

On the other hand, according to some of theorists, globalization reduces the control of states and governments of their nations. So social liberation, democracy, civil attitudes and political culture are promoted (Bollen, 1979, 1983; Bollen And Jackman, 1985; Cutright, 1963; Cutright And Wiley, 1969; Hannan And Carroll, 1981; Jackman, 1973; Lipsert, 1959; Imai, 2002). Despite this, some theorists believe that regardless of cultural or regional differences between states (national economies integration within global market) globalization is a catalyzer for political liberalization of states. However, this idea is rejected by some thinkers of international policy due to the general effect of economy globalization of policy (Dupont, 1996; Fukuyama, 1989, 1995; Huntington, 1991; Jones, 1995; Kauhkan, 1993). This can be seen in the reduction of globalization effect in Asian countries (due to their unique political culture). However, one cannot ignore the great effects of globalization in political area within global level. The distribution of cosmopolitism relation, the growth of political culture, the transformation of traditional power of societies to competitive powerful power, the increase in citizen rights and awareness within civil society and institutionalization of liberty in selection within the political development models are a great part of globalization effect in political zone at global level which are mentioned in political dimension in globalization.

6.2 Social dimension

Social dimension of globalization is related to the globalization effect on the life and work of individuals, their families and communities. This dimension is related with the effect of globalization on employment, work condition, income and social support. The social dimension beyond labor world refers to security, culture, identity and the coherence of families and communities (Gunter and Hoeven, 2004).

Historically, this dimension of globalization is alongside with neoliberal ideology. The changes in the policies facilitated in late 1970s within liberalization framework. The movement from Keynesian economy to monetarist macroeconomic in developed countries which was followed through structural adaptation in developing countries in 1980s and 1990s, their aim was privatization and the increase of global competition which is a tool for making stable and promote civil society. However, in most countries, due to removing of occupational security from middle classes and below, it has reverse effect because of severe social stress (Kinnvall, 2004). Furthermore, the main effect of globalization that has worried most people all over the world is the possibility of increase in unemployment rate because of joining to organizations like World Trade Organization.

6.3 Cultural dimension

The effect of globalization of cultural dimension is different and globalization of culture had different reactions. However, the specification and identity of these reactions depend on those societies where it has occurred, in a way that the reaction of western and modern societies has been different from that of developing countries and especially Muslim countries. Two factors have been effective in this phenomenon: first: the economic and financial effect of globalization and modernity, the emergence of modern consumption goods, the effect of mass media (TV, Satellite, Film and internet...) has been effective.
Second one is western values including scientific argumentation, secularism, individualism, freedom of speech, political pluralism, ruling of law, equalization of women and minorities (Lieber And Weisberg, 2002; Howard, 2002). Theorists have different view toward the influence of globalization on culture. Proponents believe that although globalization leads to integration and removal of cultural barriers, it is an important step toward more stable world and better life for individuals (Rothkopf, 997). However, others consider globalization of culture improper due to fear from universal power and the continuance of multinational collaborations with international institutions such as International Monetary Fund (IMF) (Lieber and Weisberg, 2002).

According to these views, the idea of globalization is controversial from cultural point of view (Vair, 2004). More specifically, the views toward globalization of culture are based on two theories of convergence and divergence (Pin Goh, 2009). However, the review of related literature shows three flow of globalization that is indicative of social, cultural and political: Polarization, And Hybridization Homogenization (Holton 2000). Homogenization argues that globalization leads to cultural convergence, most discussions such as John Tomlinson’s Cultural Imperialism (1991), Reinhold Wagnleitner’s ‘Coca-Colonization’ (1994) And George Ritzer’s ‘Mcdonaldization’ (2001) considers global culture as indicative of capitalism culture, necessarily, the culture which is inclined toward local cultures. Such culture penetrates in global economy. Furthermore, the emergence of transnational elites who are trained with western values and are committed to homeland values, helps in the construction of a dominant culture that is inspired from capitalism values (Hsiao and Wan, 2007).

The proponents of convergence theory assume that as the modernity level increases, the level of structural integration of modernized communities increases, too. On the other hand, the main changes that occur in structural uniformity of culture in modernized communities might lead to similar consequences, innovation, industrialization and modernization affect through converging the effects of technology on all aspects of social life and labor (Webber, 1969). Ploralization theory offers an opposite view against this. Localities react differently due to external powers of the world due to various cultural and historical heritages. Some communities, particularly Muslim communities, resist westernized or American culture. Based on this, the feature of today’s world is ethno-nationalism and the conflict between cultures (Tusicinsy, 2004). There is cultural dichotomy between western and non-western life styles, east and west, east and Islamic Confucian Axis (Hsiao and Wan, 2007).

Ploralization theorists such as Adler and Bartholomew, 1992; Yuki and Falbe, 1990 argue that the cultural variation and resistance toward western norms assert that pluralism theory provide an interesting and more attractive picture of global culture development. They argue that it is simplistic to assume that behaviors, preferences and tests from all over the world are converging (Akkah, 1991) because cultures are changing and conform differently.

On the other hand, the third group of theorists that are known as hybridization believes that the previous outstanding theories do not include the complicated and multifaceted global culture. They argue that cultures adapt from one another and combine some elements from different sources within their own particular cultural experiences (Pin Goh, 2009).

Hybridization theory asserts that cultures have some elements and components specific to themselves (Kraidy, 2005). New terms such as globalization and hybridization are created for expressing the dynamic relation and link between globalization and localization (Hsiao
and wan, 2007). These are main dimensions that are of great importance in the examination of the effect of globalization. On the other hand, they are helpful in determining the main discussion of this chapter which is the examination of the effect of globalization on innovation; this will be focused in what follows.

7. Globalization and innovation

What has been mentioned so far is for better determination of globalization process and the examination of its consequences in different cultural, social, political and economic dimensions. Nevertheless, the main topic of this paper is the consequences and effects of globalization on innovation and regardless of the positive and negative effects in different aspects, how globalization affects innovation. As it was mentioned previously, the researchers have offered different explanations and analysis about globalization and its consequences. Each of these scholars and theorists has tried to examine different dimensions of this phenomenon. Despite most of them, the overall effect of globalization is to move toward convergence and integration. As an example, Aldous Huxley in his book, Wonderful New World, draws globalization in such a way that within it, human beings are surrounded in a world that control and supervise everything with its rhythmic order within which self-awareness and world-awareness link together and human being, thought world and culture transmute. Emanuel Wallenstein, German sociologist, believes that "globalization is the process of shaping some networks within which the societies which were isolated in this world merge in mutual dependency and global unity". Mentioning the global system theory, he draws the relation between nations a kind of convergence and integration between nations. Francis Fukuyama considers globalization as "the spread and development of western culture and dominance of American civilization on the world and interprets it as 'the end of history'." Such theories reflect the orientation of globalization toward integration. However, such integration can have different influences from different dimensions. Economically, the world is being transformed to a unique economic creature very quickly, an undeniable creature within which all components and parts are dependent to one another. From political and social perspectives, the results of globalization is the construction of transnational society which if it is done on all aspects, the political and cultural role of states is reduced and the transnational rules and values would govern the economic, political, cultural and social structures. Furthermore from cultural point of view, it leads to universal culture beyond local and national borders, the common and shared culture within the framework of which local cultures are defined and if this culture has the ability to collaborate in such culture, it would stay stable (Turki, 1383). Based on this, most of scholars regard globalization as the unification of all cultures and extension of westernized civilization's patterns that is in fact a cultural imperialism (Davoodi, 2009).

Considering these consequences of globalization, the main discussion of this paper is that globalization reduces innovation and it has a negative effect on innovation through removing the variation. In order to discuss this effectiveness, we should assert that of main consequences of globalization is the movement toward convergence and integration in all political, economic, social and cultural dimensions. It is obvious that the consequence of such phenomenon is disappearance of variety in these dimensions. In
economic dimension, globalization is an economic phenomenon whose feature is the spread of capitalism and market mechanism all over the world. Since different countries have different social and political systems and their economies are in different level of growth and development, the obligations and necessities of economy globalization (liberation of trade and capital flow), the execution of social regulations (those emerged from global organizations like world trade organization, ...) have different effects on nations (Gengshen, 2001). Such discussion in globalization embeds this idea that the prerequisites of globalization destruct variation in all dimensions and due to fact that variation has positive effects on improving innovation and creativity and is considered a source of innovation, globalization phenomenon destructs innovation through destruction of variation and with inclination toward convergence and integration. For example in economy, some critics of globalization believe that the growth and development of market globalization reduces variation and necessitates the policy of support (The Economist, 1994, 1995, 1998; Waxman, 1998; Baughn And Buchanan, 2001; Kull, 2001; Francois And Vanypesele, 2002).

Klein (2000) has mentioned such concern in globalization and asserts that market-oriented globalization doesn't necessitate variation. For better elaboration of this topic, he refers to the growth of sport industry (Nike), the entertainment and child tools (Disney and Mattel) and software industry (Microsoft).

In culture dimension, the negative effects of globalization have been considered in eradicating variety. The critics of globalization assert that globalization is somehow imposition of western culture on non-western world. This theory that is mentioned within cultural imperialism follows the idea that although cultural globalization appears as trans-historical and transnational or as a supreme global power, it is nothing more than the issuance of goods, values and priorities of western lifestyle.

What is spread in global level of culture are believes and constructs and generally identities which are offered by western culture industries. These theorists speak about the construction of cultural dominance on other cultures within the framework of globalization that endangers the cultural identity, believes, values and even the language of most countries using communicative and technological tools (Gol Mohammadi, 1381).

David Held (2000) regards culture globalization as a form of imperialism that is followed by western countries. Furthermore, he asserts, "cultural imperialism is a goof method and procedure for understanding culture globalization. The dominant culture of western countries disappears through the main trend of homogenization of local cultures disappear and this is an applicable matter for economic benefits of western countries".

Fukuyama is among scholars of globalization who reject the idea that globalization leads to convergence, removes tradition from cultures and destructs cultural variation (national and local). However, he asserts that although globalization creates convergence in some grounds, there are other deeper components in the culture of countries that make convergence a difficult task. He believes that the communities preserve their individual characteristics in spite of economic collaborations.

Nkosinathi Sotshangane (2002) speaks of cultural variation as an undeniable and important fact in "Global Village". While the rich value of it is ignored and most countries have some deficiencies in realizing the cultural values, most people have experienced the negative effects of globalization. In a way that from late 20 century, there have been some protest
movements against globalization and its effect on the economic, cultural, political, technological and religious order (Sotshangane, 2002).

Such measures and perspectives make some negative effects of globalization more important. For example, UNESCO has provided a broader definition to pay much attention to variation in culture and show its significance. After world conference 1983, culture was defined as the collection of material, intellectual, cultural and emotional characteristics and features of a society or social group to focus the attention on culture variation and its significance so that this definition includes the ways for living together, value system, traditions and believes in addition to art, literature and lifestyle (UNESCO, 2002). In 2001, in Universal Declaration on Cultural Diversity, cultural variation was defined as “the source of exchange, innovation and creativity” and its positive side was confirmed (CHAN-TIBERGIEN, 2006).

8. Discussion and conclusion

Globalization is one of the topics which have been considered by different theorists and researchers and different contradictory views have been provided considering its significance and influence on different aspects of human life (economic, social, political and cultural).

On one hand, the proponents of globalization try to focus more on the benefits of this phenomenon and emphasize on economic and social development of communities and regards it a positive matter. In contrast, the opponents of globalization believe that globalization is good for developed and advanced countries and communities and it has negative consequences in other communities (developing countries). However, some believe that beyond the identity of societies and communities, globalization has different consequences for topics and phenomena. For example, the effect of globalization of the development of technology, science can be positive or negative. In this chapter, the authors try to examine the effect of globalization on innovation. They believe that globalization has some negative consequences on innovation through destruction of variety and with inclination toward convergence in all areas and eliminates variety.

Due to the fact that convergence and orientation toward integration occur in all dimensions including economic, social, political and cultural dimensions, in other words, moving in one dimension affects other dimensions, so it can be concluded that the negative effect of globalization on innovation occur in all dimensions.

9. References


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Today science is moving in the direction of synthesis of the achievements of various academic disciplines. The idea to prepare and present to the international academic milieu, a multidimensional approach to globalization phenomenon is an ambitious undertaking. The book The Systemic Dimension of Globalization consists of 14 chapters divided into three sections: Globalization and Complex Systems; Globalization and Social Systems; Globalization and Natural Systems. The Authors of respective chapters represent a great diversity of disciplines and methodological approaches as well as a variety of academic culture. This is the value of this book and this merit will be appreciated by a global community of scholars.

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