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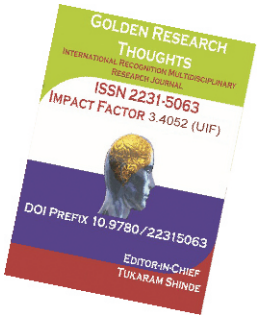
GLOBALIZATION AND TECHNOLOGY–AN ECONOMIC DIMENSION



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ABSTRACT

Globalization has become a "buzzword" in the present day. The world has become so common that it has been used in day-to-day utterances of every individual. However it is not just the term that is new, what is new is the pervasiveness of the phenomenon and the speed at which it has engulfed all parts of the world. In common parlance, globalization means free flow of ideas, people, goods, capital, technology, culture and so on from one country to another. In brief, it has changed the face of the world irrevocably. The present paper intends to analyze the current implications of globalization mainly assisted by information and communication technology (ICT).

KEYWORDS : *Globalization, Pervasiveness, Capital, Culture, Development, Information & Communication Technology.*

INTRODUCTION :

No other term, perhaps, has received as much scholarly and media attention and has stirred a major discourse in social sciences in last two decades as the term "globalization". The phenomenon encapsulated by this term appears to have become the "most pressing issue of our time" (Stiglitz2003:4). The word has become so common that it has been used in day-to-day utterances of every individual; from a Porter to a Parliamentarian. In common parlance, globalization means the transfer or movement of goods, ideas, capital, labour, technologies, culture, education etc. from one country to another. It is associated with the integration of the world; with the market breaking open the barriers across nation states in terms of flows of trade, finance, technologies, knowledge, culture and even movements of people. In other words it attempts to create a global market where world economy is being integrated aiming at reducing the trade barriers between the developing and developed countries. To brief, globalization is a process of integration of markets, finance and technology, especially information technology (hereafter IT) in a way that shrinks the world to a miniature in size and enables people from different parts of the globe to reach around the world faster, deeper and cheaper.(Friedman and Kaplan 2002:64) Despite being a "buzzword" today there exists no unanimity among the scholars regarding the precise meaning of the term „globalization". The writers and scholars across the globe have been engaged in research and analysis of the process, dimensions

and consequences of globalization internationally or with reference to a particular country. Accordingly, the scholarship on globalization is divided into two categories: on one hand, there are proponents who regard it as coterminous with a progress and the most effective route to end poverty; and on the other hand, those verifying it as the source of all contemporary social, political, economic and cultural ills, not only in the developing world but also in the developed world. In between these two extremes are scholars who view globalization as a process which though historically inevitable, can be managed for alleviating the vulnerabilities resulting from it, ifnot for reaping into promised benefits. However there are at least five broad conceptions regarding the idea of globalization viz., internationalization, liberalization, universalization, modernization and deterritorialization. Thus, globalization is multi-dimensional phenomenon basically representing a tendency towards greater integration of the world economically, technologically and socially.

While oversimplifying its meaning, Thomas L. Friedman has defined globalization as "the integration of everything else." It involves a process of change that is too simple and yet paradoxically too complicated to grapple with. E. Anitat has talked of globalization as "the process through which an increasingly free flow of ideas, people, goods and capital leads to the the integration of economies and society". Dr. Ian Liden views, "Every generation, at least in the 20th century, has some kind of symbolic ideology that gives them a „map" of the world. The word that gives us the world after 1990 is this concept of globalization, by which many people mean different things".

ORIGIN AND GROWTH OF GLOBALIZATION

To be sure, globalization is not a new phenomenon. As early as in the mid-19th century Karl Marx (see Sweezy 1968) had observed that capitalism as an economic system is by definition and necessity an international economic system. In the 1960s Andre Gunder Frank analyzed the implications of the phenomenon when advancing his thesis on "Capitalist Accumulation" and the "Development of Underdevelopment". Before the term "globalization" acquired its currency, Immanuel Wallenstein spoke of the "capitalist world economy" and the "world systems theory". Of course, it is not just the term that is new; what is new is the pervasiveness of the phenomenon and the speed at which it has engulfed all parts of the world .(Robertson 1992:08) However, the origin of the concept of "globalization" is usually traced back to Marshal Mc Luhan in 1960 who first introduced the idea of what is today called "Global Village" – a notion that implied a sort of compression of the world and the intensification of the consciousness of the world as a single entity . This shrinking of the world in the early 1960s, was then attributed to the growing impact of the media revolution. Their influence on human experience has been so deep and all-pervasive that it became a part of our being, our consciousness and our very existence. Globalization processin the 1980s and 1990s led to surging of international trade and investments mostly centered around and dictated by the advanced industrial capitalist economies. However, globalization today has changed the face of the world irrevocably; time has compressed, communication revolutionized, concept of self and community metamorphosed, and the idea of the state and its boundaries challenged.

ROLE OF IT IN GLOBALIZATION

The current phase of globalization focuses on the role of the international trade and market as a cohesive force mainly assisted by modern media and IT. The rapid changes in the transnational business world are usually attributed to the revolution in the new digital technology and IT. It is often said that information superhighways are the routes through which globalization process takes deep and firm roots. The high-speed digital technology is its principal vehicle that enables globalization to change

economies and societies-their norms and rules of the game, especially those of the transnational business world. The unstoppable speed of the new IT has thus accelerated the process of integration of the world economies. Thus IT has enabled principal companies and actors in the international market to organize themselves as global enterprises. The rapid growth of information and communication technology (hereafter ICT) has made market, economy, finance, companies and corporate as global, as a result, the present concept of globalization is being different from its earlier phase. According to Jagdish Bhagwati, a Professor of Economics and Law at Columbia University, "Today's most dramatic change is in the degree to which governments have intervened to reduce obstacles to the flow of trade and investment worldwide. The story of the globalization today must be written in two inks: one coloured by technical change and the other by the state action". (2008:11) since the end of the 20th century and the beginning of the 21st century the world has witnessed technological advances in a massive scale. The global spread of ICT and the fast pace of technological innovations add a new pattern to the current phase of innovations which is also market-driven. Thus it is clear that the technological advances have initiated globalization in most parts of the world. As David Harvey has summed up, "Globalization is intimately linked with the intensification and speeding up of time-space compression in economics and social life." Technology today brings in newer channels of communication with novel opportunities for relocation and outsourcing of production. Opportunities are also opened up with electronic transfers of money and the use of e-commerce in a much wider range of financial and trading activities across the globe. It is now possible to travel and also to have access to internationalized culture, and to the innovative activities in areas including bio-technology as well as industry. However, with market in charge of these innovations and dissemination, technology today often remains confined to those who can access these in terms of their purchasing power. Thus technological advances often widen the gap between the rich and the poor, and in the process distances growth from development. Instead of creating more job opportunities at better terms, the new technologies, as are used in industry, often displace labour. This has particularly been true in developing countries like India where the introduction of flexible labour norms has facilitated the process.

Impact of ICT on Globalization-An Economic Aspect

Technology, like trade, is far from neutral in terms of the distributional implication. These effects vary both across the countries and amongst people within each country. Of the prominent innovation as have swept across the world in recent times, one can mention can ICT, micro-biology along with some newer technology in transport, power generation, construction and many other fields. Countries in developing areas do not necessarily have the same capacity as the advanced ones to adopt and switch over to these new technologies. This is because the new implementation of these hi-tech methods in production often turns out to be too expensive for the developing countries. When technology developed by a corporate unit is used by outsiders, it entails heavy payment of royalties as specified by the Trade Related Intellectual Property Regimes (hereafter TRIPs) agreement under the World Trade Organization (hereafter WTO). In terms of the product patenting norms, consumers in developing countries also pay heavily for the patented products which can no longer be produced using locally available technology, and at local prices. At mentioned earlier, most of these new and sophisticated technologies are generated with the help of in-house research by the large corporate houses from the advanced nations. These are often patented within advanced areas. It has been observed that most of these registrations remain confined within the triad of advanced nations, which include European Union, United States of America and Japan. It may also be mentioned here the role of National Science Policy which has been a facilitator of private corporate innovations with Research and

Development (hereafter R & D) expenditures. It has been historically a vital part of the industrialization process in developed countries. In terms of the current ethos of the neo–liberal regime in developing countries, possibilities of having a National Science Policy on behalf of the state has been pushed to the back-stage, thus failing to provide the late industrializing countries an opportunity to further innovations at the local level. R & D expenses on part of local industry also has slowed down in the new patent regime of the WTO, with difficulties in getting legal sanctions from the WTO. The purchase of the patented technology may not turn out to be the best cost-effective solution for the developing countries, especially for local companies who have to buy these products on a commercial basis from the global market. Enterprises in developing countries generally failed to catch on and compete on equal terms with foreign enterprises. Thus, the use of technology in the new patent regime often proves prohibitive in terms of the high cost. One can mention here the changes as have taken place in other spheres of production which include services and industries. A large part of these new products are beyond the purchasing capacity of even the average consumers. Thus, a large number, especially among the poor, happen to be on the wrong side of the "digital divide" in this hi-tech manifestation of globalization. Their experiences tell us about the darker side of the story of the globalization, even in terms of technological advances. If innovations as such are rendered inaccessible to developing countries, can these countries still benefit from applications of these new technologies? And does technology help in promoting development in these countries? To respond to these both questions it becomes necessary to consider the pattern of distribution of the related benefits among different income groups within these countries.

With the integration and opening of national markets under globalization, technology has made it possible in principle, to get across the benefit via the market-place to as many people as possible. The maximum fall-out of such benefits have been with the IT, which has rendered new forms of communication viz., cell phones, television, computer, internet etc. of course, the benefits cannot percolate to the bottom run of people where poverty rules out the possibilities of availing facilities beyond subsistence.

But in general, the recent advances in communication technology have definitely changed the life-style of the middle class as well as of others with low income, as compared to what it used to be even a decade back. Technology has also made it possible for the skilled in developing countries to have wider job opportunities at home and from abroad. This is made possible with widespread use of outsourcing on part for foreign enterprises to make use of the services of skilled persons which are available at much cheaper rates as compared to what prevail in their own countries. However, the ICT revolution has made mass production of some inexpensive electronic goods a possibility. These include the use of mobile telephones and access to cable operated television channels, both of which have considerably improved the quality of life of people in different walks of life. However, these facilities do not trickle down to those in the developing countries who are on the verge of survival in terms of poverty estimates. Access to technology generally varies in numerical terms when it concerns people of different means, both in developed as well as in the developing countries. Our narrative on the asymmetric impact of technological strides over the recent two decades puts to doubt the neo-liberal faith in treating technology as a freely accessible „public good." Thus trade, technology and growth are seen as closely linked to each other, with trade and technology contributing to growth. It is also argued that technology is a major component of the Foreign Direct Investment (hereafter FDI) flows, which is automatically transferred from the home country to the host country. Qualifying these positions, the new approach to growth theory, treats technology as an input to the growth process which can be acquired by experience. Growth is viewed here as an „endogenous process", the pace of which is

necessarily dissimilar between countries in terms of the capabilities and opportunities of technological build-up. Thus it is the technology build-up, historically different across countries, which explain technological backwardness and growth retardation across nations.

Technological Diffusion and Free Market Policies

Globalization has re-surfaced during the early eighties with the zeal for markets. The aim was to achieve „growth with efficiency" as follow from the logic of neo-liberal economic policies. The drive for markets has continued to impact policies in developing and developed countries alike. The developing countries have very little bargaining power to challenge trade policies when it comes to negotiations with developed countries. These include the outcomes of trade dialogues, even at forums like the WTO where all member countries are supposed to have an equal status. It is however, important to figure out the logic behind the advocacy and the appeal of markets in the current phase of globalization.

Free market policies are very much practiced in a large number of developing countries. One can mention here that the changes in the composition of output and a technology, as usually takes place in de-regulated markets introduced new products in the market. These include a variety of sophisticated goods which in term of quality are comparable to those imported from abroad. Most of these new products, however, need an upgrading of technology which is usually labour displacing. In a study of employment in organized industries in India we found that the set of high growth industries did exhibit a tendency of labour displacement; by using technologies where less labour needed per unit of capital. A similar pattern seems to prevail even in industries where average annual growth rates of output were lower. Fluctuationsof employment had been common in all these industries over these years of market–led reforms starting in 1991, especially during the downswing but, not in upswing, which confirms the labour-displacement aspect of the new technology. Free market policies under globalization also rests on the "efficiency" aspect of free markets relating to flows of finance, both within and across countries. The advocacy of efficiency in financial flows are also guided by return which are subject to speculation under uncertainty in de-regulated markets. As a result, flows of finance do not necessarily fetch maximum productivity gains in physical terms. It is not difficult to provide examples of the asymmetric impact of free market policies across countries. These include the record of international trade and investment which tend to be markedly different between the set of countries in advanced and the developing areas. Thus the consequences of market liberalization have not been uniform. The opening of markets, which started in the 1980s and picked of further during the 1990s in terms of the WTO regime, had no impact on export share for the developing countries in the world market. So the developing countries have had a varied experience in terms of their export performance as well.

From GATT to WTO

Tracing back the evolution of the liberalization of markets in the developing region, the process started, during the early nineteen eighties with the International Monetary Fund(IMF) offering conditional loans to the debt-ridden developing countries. It is not just an accident that the term came speedily into academic parlance following almost on the heels of the Dunkel Agreement that finally led to the formation of WTO. However the dialogue on trade opening was already there in terms of the several tariff-cutting rounds of the General Agreement on Trade and Tariffs (GATT) since 1947.

These developments made in imperative for the advanced countries to enlarge their market access abroad. Deliberations at several rounds of the GATT negotiations on tariff negotiations and reduction of non-tariff measures (NTM) which ended in Tokyo in 1979 finally led in 1991 to the signing

of a formal World Trade Organization (WTO) at Uruguay, by 128 member nations, of which a large number were from the developing areas. `For the signatories to the WTO agreement, the organization was expected to ensure the long-awaited promise of market access to all members, and on a non-discriminatory basis. Those expectations, however, were to be soon belied as it was realized that the advanced nations were too much powerful when it came to trade negotiations. In 1990 the Ministerial meet at Geneva agreed to have duty-free entry of electronic products on a time – bound basis which has continued, with extensions, till today. The Doha development agenda, while constructive and liberal in spirit, has remained far removed from reality when it came to its implementation. Despite the strengthening of multilateral trading arrangements under the WTO, several measures have continued as unilateral actions on part of the more powerful nations. It thus appears that the WTO hardly strengthened the bargaining power, if any, of the developing member nations to contest the multifarious non-tariff restrictions and has clearly worked to the advantage of advanced countries. The WTO regime has also opened a dialogue for what is described as the trade related Intellectual Property Regimes (Trips) and the Trade Related Investment Measures (Trims). Both were parts of the Uruguay accord. The need of enforce a common system of intellectual property rights (IPR) across the member nations of the WTO arose with the frequent disputes on the legal validity of the national patent regulations across nations. It was claimed that replacing the national patent regimes by an universally accepted regime would encourage expenditure on Research & Development (R & D) as well as on inventions at the industry level. Countries including India, Brazil and South Africa along with others are facing considerable problems in adjusting to the new regime of the TRIPs. As claimed in the Uruguay round, the above offered the much needed pre-requisite for generating what today is known as a „knowledge economy" – the result of technological advances.

Globalization – An Indian Case

India entered into the process of globalization in 1991 when the country was facing with serious „Balance of External Payments" crisis led by P.V. Narsimha Rao, the then Prime Minister and Dr. Manmohan Singh, the then Finance Minister. Viewed as a state of economic crisis and emergency, the situation ushered in a reversal of the prevailing policies. Unlike Nehru-Indira Gandhi Model in which public sector had occupied a prominent position in the economy, the new economic policy was based on privatization, deregulation, liberalization and Globalization.

The growing use of ICT during the last one decade and a has made the issues of development and good governance dominant in the electoral politics of the country pushing aside the previous issues like casteism, communalism, linguism, regionalism etc. The new policies relating to banks also included higher disclosure standards in financial reporting, phased deregulation of interest rates on advances as well as deposits, and the lowering of statutory liquidity ratio (Slr) and cash reservation (Crr) requirements. While the wave of financial de-regulation in India followed the recommendations of the first committee on Financial Reforms in 1991, these were reinforced with a fresh set of mandates as were recommended by a second committee on financial sector reforms in 1998. The other aspect of freeing the financial market relates to the distribution of credit within the economy. As mentioned earlier, opening up of the financial market has made it possible for banks in India to advance credit to the profitable channels of investments. Thus financial opening in India Has led to a restructuring of financial flows, both within the economy and across national territories. This has, however, continued to widen the economic disparities in the country while at the same time retarding the prospects of higher growth in different sectors.

CONCLUSION

From the above discussions it may be concluded that globalization, with its adjuncts of the market and technology, does not provide an automatic route to a world of equal opportunities and capabilities. The market-led globalization has failed to generate benefits which can be accessed by the majority of the developing countries and by the bulk of people living within their borders. One cannot accept the assumptions of perfect competition and freely available information as is postulated in the old and the new endogenous growth theories. Both these theories treat technology as freely available to all, a poison which violets the institutional parameters, which include the monopoly power enjoyed by the corporates owning the patent rights. Thus patenting and licensing essentially obstructs the dissemination of knowledge and transfer of technology. As explained above, the innovations with new technology and the consequent opening of markets and close of trade open up opportunities are not necessarily shared by all countries and by all within these countries. While the opportunities may make for higher growth, even in the developing countries, the scene may be bleak for what we perceive as development which is people-centric and not just growth-indicative.

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