

Economic Globalisation and Change: Implications on Geographical Education in Malaysia

Katiman Rostam

*School of Social, Development & Environmental Studies
Faculty of Social Sciences & Humanities, Universiti Kebangsaan Malaysia
43600 UKM Bangi, Malaysia
E-mail: katman@ukm.my
Tel: (+603) 8921 3629; Fax: (+603) 8921 3334*

Abstract

The process of globalisation has had an impact on world economic activities, particularly in the service sector. Service activity, education in particular, has long been regarded as a social rather than a commercial function. However, following the global shift in economic activities during the 1990s from manufacturing to services, education emerged as an important component of producer services. Universities, research and technical training institutions have played pivotal roles in the new economy by supplying new ideas, technical innovations, industrial patents and, most importantly, human resource. Currently, universities have to be more competitive globally. The new production and service economies, which are mainly located in the metropolitan areas, require university graduates to be equipped with more new skills. The marketability of a graduate is no longer based on academic performance alone. Human-centred generic skills such as communication, ethics, teamwork and leadership together with other advanced technical skills have become much more critical in determining how employable university graduates are. Such a shift has compelled universities to make the necessary adjustments to their curriculum across disciplines by incorporating new knowledge and skills in their learning activities. This paper discusses how universities react to the global economic shift with regard to growing demand for new skills among their graduates with special reference to geography. By virtue of the fact that geography is not clearly a technically oriented subject, students of the discipline have to strike a balance between acquiring new knowledge and mastering generic skills as a new strategy to cope with the problem of unemployable graduates.

Keywords: Economic globalisation, metropolitan growth, service economic activity, producer services, geographical education

1. Introduction

The globalisation of economies has had a huge impact on the economic structure of countries all over the world. The economic development of developed countries which began in the agricultural and production sectors has now shifted its emphasis to the service sector. In many developed countries, the service sector has become the catalyst for growth, not only in manufacturing but also in other economic sectors. This shift in emphasis is also now apparent in developing economies. Hardly any country in the world is an exception to this phenomenon.

Globalisation is a wave of change with great momentum. It is only recently that this process of change became obvious. The term 'globalisation' began to be used in the early 80s, but serious writings on economic globalisation only started with the publication of writings on the subject by

Kenichi Ohmae (Ohmae, 1985). His writings continued into the 90s (Ohmae, 1990; 1997) and were greeted with mixed reactions. Globalisation itself has generated mixed opinions. Albrow and King (1990), for instance, was of the opinion that globalisation referred to all processes that would lead to all the peoples of the world becoming united, i.e. being members of a global community. This opinion was supported by a number of writers like Mittleman (1996) who referred to globalisation as the compression of space and time in social relationships and the emergence of worldwide awareness towards this compression. In everyday language, it could be said that ‘the world has become smaller’. Ugarteche (2002) was of the opinion that globalisation is a process of growth and development of economic activities that go beyond national and regional boundaries. This is demonstrated by the movement of goods, information, services, capital and labour through trade and investment. Discussions on this matter are still continuing (read the writings of Albrow, 2007). From the different opinions, it is possible to draw the conclusion that the people of the world are becoming a large community. They are becoming more dependent on one another in the production and consuming processes.

Based on the above understanding of globalisation, it could be seen that globalisation consists of two processes, namely the process of compression of space and time through information technology and the process of increasing global awareness towards the said compression. These processes of compression and increase of awareness have made the world seem borderless and could cause a country to lose its influence and ability to plan and determine its own development goals. This is because the tools for its implementation, for example the various economic policies, may become ineffective and that the country would become a ‘global capital transmission line’ subject to ‘world market power movement’. As a result, the country may find it difficult to implement its own welfare policies to protect the rights of poverty stricken and vulnerable groups or regions.

This article aims to discuss the impact of economic globalisation on the intermediary or producer service sector, with special emphasis on the teaching of geography in Malaysia. Emphasis will be placed on the development of economic production and services in metropolitan areas and their implications on the education sector and on the teaching of geography in particular. Specifically, this article aims to:

- analyse the growth of economic production and the concentration of office basic service economic activity in the Klang-Langat Valley area, the core of producer service sector which is very important for economic development in the globalisation era;
- discuss the changes to the curriculum in the teaching of geography in the country as a response to changes in the global economy.

2. Development of Advanced Economic Production and Services in Metropolitan Areas

Since the restructuring of organisation and production processes in developed nations at the end of the 70s, there began a tendency for industrial activities of the world to concentrate in countries in the Asia-Pacific region. The production activities of these countries tended to concentrate in cities that are the most developed. Once again, economic globalisation was focused in developed metropolitan areas. The policy adopted by most countries for their development before this globalisation era took hold was in favour of balanced development among their regions, in particular through the development of natural resources and the industrialisation of less developed areas. This policy did not have the impact required to increase economic growth at the desired rate. Extreme industrial activities depended on low labour cost in an effort to reduce costs in the production of import substitutes and goods for local consumption. Such industries soon found that they could not compete in the global market. A limited local market and various restrictions found in the effort to alter the strategy to produce goods for the export market instead resulted in a short-term economic growth at a very slow rate (Schmitz, 1984). This less efficient development approach has since been regarded as lacking in relevance.

In recent times, an approach that regarded metropolitan areas as development centres has been given increasing attention. Such areas have advantages that could attract economic activities. Economic agglomeration would encourage the clustering of production and service activities. In this respect, the experiences of newly industrialised nations such as South Korea, Hong Kong, Singapore and Taiwan have greatly influenced the industrial strategy and policy of other countries in the Asia-Pacific region, including Malaysia. This new perspective towards industrialisation has altered the approach and direction of development in many developing countries including Malaysia. The new approach towards development has been considered as economic growth accelerated through the concentration of economic activities in metropolitan areas (World Bank, 1981). This approach has had great implications on urban spatial patterns in the region.

The concentration of the most advanced production and service activities in the social and economic environment of metropolitan areas was a new element in world urbanisation history, particularly in the Asia-Pacific region. The view of Mera (1973) given more than thirty years ago that metropolitan areas, including primate cities, were capable of generating efficient economic growth owing to the presence of various agglomerations of economies was gaining serious attention. The existence of a primate town or city was no longer considered negative. On the contrary, the social and economic environment of a metropolitan area, including a primate city, that is dynamic, innovative and competitive, supports the development of modern economic production and services. This idea has been increasingly accepted (Sassen, 2000; Marshall, 2003). The social and economic environment mentioned included, among others, a competitive edge in the provision of infrastructure and information structure, an institutional milieu, an economic structure, governance and human resource (Webster & Muller, 2000). This advantage provides the incentive for the development of producer services such as banking, research and development, programming and computerisation, delivery, insurance, brokerage and, most important of all, an education service that has become crucial to a modern economic sector. Only a metropolitan area is capable of offering the most advanced service facilities of a world standard. This is what has caused economic activities to concentrate in metropolitan areas.

The concentration of producer service economies in metropolitan areas refers to the advantages of these areas as production centres. The theory of regional competition states that regions of the world are constantly in a state of competition with one another to attract major companies of the world to their area. The high competitiveness that exists in the world markets causes companies to seek a competitive edge by locating themselves in metropolitan areas that offer the desired facilities. By 2000, economic development that emphasised concentration of economic activities in metropolitan areas had become the agenda of most countries of the world. This was in line with cross-border relocation of a company's economic production activity.

The competitive advantage of cities or regions can be defined as the ability of the city or region to produce or market a quality product or service in relationship to a similar product produced in another city or region (Porter, 1998). Competitiveness also includes a city's economic system that produces goods and services of quality for the country's population, lends support to the export activities of the city until its inhabitants could improve their living standard and subsequently the quality of life in the city or region (Webster & Muller, 2000). This view was shared by many other researchers such as Omorregie *et al* (2001) and Lundquist & Power (2002) who maintained that the process of agglomeration, which made use of *urbanisation economy* and *localised economy* by way of geographical clustering, could increase the competitiveness of companies and subsequently the competitiveness of the city area.

3. Advanced Economic Production and Services in Metropolitan Areas In Malaysia

Rapid economic growth occurred in the late 70s in developed countries and in newly industrialising countries (NICs) in particular Taiwan, Hong Kong, South Korea and Singapore. Increasing production

costs due to high labour cost in developed countries caused production activities in these countries that depended on cheap labour to shift to developing countries. This was in line with cross-border corporate restructuring of firms willing to relocate their production activities to more competitive regions (Dicken, 1992).

The industrial policy of newly industrialised countries also changed with the emphasis then on consumer goods for export rather than the production of import-substitutes. The focus of activities also changed from that of labour-intensive production of electrical and electronic goods to the production of products with a high technology input. The ready supply of cheap skilled labour in developing countries was conducive to the application of such a strategy. This approach was carried out in an open market with minimal governmental interference to allow for the active and initiative-rich participation of the corporate sector.

3.1. Development of the Modern Economic Sector in Malaysia

An economy that emphasised metropolitan areas for the location of economic activities was something that was relatively new in Malaysia. After Malaysia’s New Economic Policy (NEP) period ended, the government launched the National Development Policy (NDP) with the vision of the country achieving the status of a developed nation by 2020. In view of changes taking place globally, the corporate sector has been given a bigger responsibility for the development of the nation. Concurrently, economic restructuring has been carried out by the government by placing more emphasis on the production and service sectors. Producer services, in particular those that depended on innovations in the advanced technological field, which in turn depended on research and development, have become the main focus of economic activities of most countries in the post-industrialisation era (Ishak Yusof, 2006). These activities are located in modern metropolitan areas where the majority of the research centres and universities are found. The globalisation of economies has expedited this change.

At the time the change began to take place at the end of the 70s, the Malaysian economy began to shift its focus towards the production sector. By the end of the NEP period, the industrialisation process had become more obvious. This emphasis on production resulted in the establishment of new industrial areas in large, medium and small towns as well as in rural areas, particularly in the states of Johor, Perak, Negeri Sembilan, Pahang, Terengganu, Melaka and Kedah. The increase in investment in the industrial and service sectors showed that Malaysia was on track to becoming a developed nation. This could be seen in the change in contributions by every sector of the economy in the gross domestic product (GDP) of the country (Table 1).

Table 1: Malaysia: Gross Domestic Product According to Original Industry, 1975, 1990 and 2005

Sector	Gross Domestic Product (RM million)			Annual Growth Rate (%)	
	1975 ¹	1990 ²	2005 ³	1975-1990	1990-2005
Agriculture	4,804	14,829	21,585	11.27	3.76
Mining & Quarrying	792	7,688	17,504	15.15	5.42
Production	2,850	21,381	82,394	13.4	6.44
Construction	654	2,788	7,133	9.67	6.26
Services	7,811	33,465	152,205	10.0	10.0
Less bank service tax	211	4,026	32,707	9.98	13.97
Add: Import Duty	665	2,972	5,083	9.98	3.59
Gross National Product at Purchase Prices	17,365	79,103	262,029	10.11	7.99

1. Consumer prices, 1970; 2. Consumer prices, 1978; 3. Consumer prices, 1987

Source: 1. Malaysia (1979), 2. Malaysia (1991a), 3. Malaysia (2006a)

The shift in economic structure from agricultural and mining core sectors to production and service sectors at the end of the NEP period had a direct impact on the GDP. Although contributions to the GDP by the agricultural and mining sectors remained large, they were nevertheless decreasing from 15% and 7.0% respectively in 1990 to 7.0% and 5.6% in 2005. The average annual growth too

decreased, from 11.3% and 15.1% respectively for the period 1971-1990 to 3.7% and 5.4% for the period 1991-2005. The importance of these two sectors had shifted to the production and service sectors, the latter each contributing approximately 21% and 33% respectively in 2005 as compared to 21% and 27% in 1990. The service sector had been growing, indicating high economic growth in Malaysia. This was reflected by the higher standards of living of the people.

The increase in GDP showed that Malaysia has become increasingly better as a producer country, thereby becoming more capable of competing in the world arena. It used to be that the makers of national development policies in countries around the world believed that an efficient economy could be achieved through equal development of spatial economy among the regions in a country. This regional development approach through the distribution of resources was done in order to achieve balanced development. Decentralising development programmes through the opening up of new agricultural areas and industrial growth centres was given priority. A growth economic development theory, in particular distribution through growth, was widely accepted and used by countries throughout the world, including Malaysia. A spatial planning model, for example the rank-size rule, central place hierarchy and growth poles were also widely accepted (Katiman Rostam, 2001). At that time, policy makers were convinced that this approach of giving attention to spatial efficiency through a balance in development would help a country reduce the difference between the have and the have-nots in a country. This in turn would reduce the possibility of political conflicts occurring between a less developed region and a more developed region in a country. During the period that the NEP was carried out (1971-1990) in Malaysia, the location of production activities, in particular electrical and electronic goods industries, resource based and textile industries, were concentrated in areas which offered low rental and labour costs. Areas that offered a comparative advantage with respect to rental, labour and raw material costs, for example areas in the east coast of Peninsular Malaysia, Sabah and Sarawak, attracted the most investments. However, this approach did not last long. The globalisation of economies which was spreading throughout the world soon took hold in Malaysia.

Like many developed and developing countries, the economic development process in Malaysia was greatly influenced by its production and service sectors. Owing to its limited domestic market, Malaysia depended on foreign investment, either direct or portfolio-wise, in order to develop its production and service sectors. Foreign investors were usually attracted to areas which offered economic advantages which would help reduce production cost. However, after the 90s, the production process in this country went through great changes. The comparative advantage of cheaper rental and less skilled but cheaper labour began to be eroded as a result of the opening up of markets in China, Vietnam, India and other countries. One result of this was the shift of investments to areas which offered a good competitive edge to these investors.

In Malaysia, the areas that offered a high competitive edge to investors were generally located in metropolitan areas. This was because these areas offered various economic agglomeration advantages, for example *an urbanisation economy*, economies of scale and a localised economy. The location of activities in a metropolitan area gave a company the opportunity to make full use of various producer service facilities such as research and development, innovation development, computerisation, banking, delivery, insurance, legal and accounting facilities. In addition, metropolitan areas offered city-like endowment benefits including infrastructure and info-structure, a skilled workforce and conducive institutional milieu that were so important to modern production and service activities (Katiman Rostam, 2006). Metropolitan regions such as the Klang-Langat Valley in the central region, Penang-Kulim in the northern region and Johor in the southern region became the centres of growth for modern production and service activities.

3.2. Central Region as Centre for Advanced Production and Service Activities

The development of Malaysia's economy after the 1990s was directly related to global changes. The liberalisation of economies and de-regularisation occurring everywhere opened up economies, including Malaysia's, to foreign investment. The Klang-Langat Valley became a competitive centre for

production and service activities. For example, in 2005, Selangor, Negeri Sembilan, Melaka and the Federal Territory of Kuala Lumpur, which together encompassed the central region, the country's main growth region, contributed 41.1% towards the GDP with a 4.6% annual growth (2001-2006). Selangor registered the highest annual GDP growth rate of 5.2% for the period 2001-2005. This percentage was projected to increase to 6.2% per annum within the next five years (Malaysia, 2006a).

The main GDP contributors in the central region were the production and service sectors. In the production sector, 68.1% of the 4,807 industrial projects that were approved by the government were located in the central region. Selangor accounted for 22.1% of the number that were located in this region or 1,517 projects worth RM29.3 billion that were approved during the period 2001-2005. Although Selangor had attracted investments since the 1970s, after 2001, the state received even more investments. The increase in projects approved and the increase in the amount of investments that the state attracted showed that there existed an active concentration of activities in the nation's industrial process. Selangor's attractiveness to investors made its competitiveness even greater when compared to that of other states in the country. Table 2 shows the distribution of approved industrial projects among the states in Malaysia.

Selangor's competitive advantage far exceeded that of other states. The state offered not only marketing opportunities, world-class infrastructure and info-structure, but also human resource that was generally highly skilled. Furthermore, localised agglomeration economies offered by a metropolitan city and other large towns in its vicinity with their various forms of advanced producer services, such as research and innovation development, administration centre, modern commercial and financial facilities, progressive educational institutions and recreational facilities not available to such an extent elsewhere, gave the central region the edge (Table 3). Example of these facilities could be best explained by the presence of a large number of higher learning institutions which provided the human resource needed by the growing advanced economic activities in the region (Table 4). In 2006, there were 252 institutions of higher learning (47% of the national total) located in Kuala Lumpur and Selangor. The figure would be much higher if institutions operated in Nilai, Seremban and Tanjong Malim situated just outside the region, were taken into account. Furthermore, the proximity of this region to the source of imported raw materials, a conducive economic structure especially from the aspect of factory site cost, competitive labour cost, institution-like facilities that simplify the production processes, all made the central region, in particular the Klang-Langat Valley, an attractive place for investment.

Table 2: Approved Industrial Projects According to State in Malaysia, 1971 - 2005

State	1971-1980		1986-1990		1991-2000		2001-2005	
	Project	Investment (RM mil)	Project	Investment (RM mil)	Project	Investment (RM mil)	Project	Investment (RM mil)
Johor	630	1,954.1	760	7,798.5	1,843	33,160.2	1,091	19,031.1
Kedah	194	799.2	165	4,985.2	512	21,073.7	275	9,118.8
Kelantan	67	133.4	25	101.9	70	1,635.4	40	474.9
Melaka	179	548.9	112	2,418.8	317	15,851.5	205	10,317.0
Negeri Sembilan	143	536.9	101	1,897.9	367	13,770.8	184	6,327.7
Pahang	163	1,328.8	70	2,265.3	191	13,895.9	88	4,739.1
Perak	385	1,546.0	192	1,577.6	549	17,047.7	265	6,955.5
Perlis	16	79.9	10	36.2	52	3,821.9	13	83.0
Penang	562	1,572.7	452	4,591.4	1,033	22,268.2	663	14,997.0
Sabah	147	465.5	129	1,727.1	348	8,383.3	145	6,834.5
Sarawak	238	3,051.7	120	5,458.6	334	26,156.8	175	16,443.0
Selangor	1,131	2,452.6	120	5,458.6	2,207	45,089.8	1,517	29,245.3
Terengganu	61	151.8	36	11,090.4	165	29,646.6	31	5,706.6
FT of Kuala Lumpur	269	595.5	107	583.2	212	1,339.3	111	2,041.8
FT of Labuan	-	-	-	-	5	32.1	4	41.8
Malaysia	4,185	15,217.0	2,399	49,990.7	8,205	253,173.2	4,807	132,357.0

Note: Comparative figures for the period 1982-1985 unavailable

Source: 1. MIDA (2006); 2. Malaysia (1981); 3. Malaysia (1996)

The central region, in particular Selangor, became the main attraction for investment in Malaysia where investments were concentrated at a number of districts in the Klang-Langat Valley. In 2005, of the 335 industrial projects approved in Selangor, 56% were located in Petaling, Klang and Hulu Langat districts (MIDA, 2006). In the producer service sector, 35% of the 11,329 service businesses registered in the country in 2002 were operating in Selangor and the Federal Territory of Kuala Lumpur (Malaysia, 2006b). These services not only met the requirements of the production activities but also complemented other advanced service activities. The concentration of advanced service activities in the central region acted in general as a catalyst to the country's economic growth. Interlinking and complementing one another, the two sectors found in metropolitan areas expedited the development of other complementary activities. This showed that the production and service sectors were increasingly concentrated in the metropolitan areas of the Klang-Langat Valley. The contributions of this area towards the nation's economy were becoming more apparent, in particular in elevating the inhabitants' socio-economic standing.

Table 3: Selected Producer Services with Offices in Kuala Lumpur and Selangor, 2002

Service	FT of Kuala Lumpur		Selangor		Malaysia		% Kuala Lumpur & Selangor	
	Organisation	Gross output (RM mil)	Organisation	Gross output (RM mil)	Organisation	Gross output (RM mil)	Organisation	Gross output (RM mil)
Construction	554	5,972.3	970	15,204	4,328	41,756	35.2	50.7
Sea transport	44	4,905.9	55	413	364	6,952	39.3	76.5
Property Agency	149	46.6	120	47	416	124	64.7	75.7
Public Bus Transport	28	383.3	9	48	260	1,007	14.2	42.8
Land Cargo Transport	56	416.0	54	1,611	802	4,004	13.7	50.6
Tourism Agency	341	1,729.2	49	165	1,007	3,057	38.7	61.9
Forwarding Agency	16	201.4	261	1,061	771	1,700	35.9	74.2
Cargo Handling & Hauling	5	44.3	36	156	141	836.0	29.1	23.9
Advertising Agency	90	1,483.2	62	494	191	2,013.6	79.6	98.2
Hotel & Other Accommodation	209	1,348.8	56	633	1,869	4,914.2	14.2	40.3
Telecommunications Agency	40	19,050.0	16	2,503	59	21,555.0	94.9	99.9
Computer Service ¹	204	3,129	181	3,425	502	6,808	76.7	96.3
Engineering Consultant ²	155	615	149	374	522	1,255	58.2	78.8
Share & Commodity Brokerage	48	674.5	14	286	97	1,361	63.9	70.6

Note: ¹Statistics for 2003. ²Statistics for 2000.

Source: Malaysia. 2006. Malaysian District/State Data Bank, 2006. Putrajaya: Department of Statistics, Malaysia

Table 4: Higher learning institutions in Kuala Lumpur and Selangor

University & University Colleges	Federal Territory Kuala Lumpur	Selangor including Putrajaya & Cyberjaya	Total Kuala Lumpur & Selangor
Public university	1	4	5
Private university and university colleges	12	8	20
Branch campus of foreign & local universities	1	8	9
Private colleges	113	105	218
Total Kuala Lumpur & Selangor	127	125	252
Total Malaysia	-		535

Source: Malaysia 2006. Jabatan Pengurusan IPT (Swasta), Ministry of Higher Education, Malaysia http://www.phed.gov.my/Services/IPTS_Directory.aspx?m=B&c (Accessed 14 May 2009)

3.3. Implications on the Education Sector: Special Reference to Geographical Education

The growth of production and advanced service sectors in the world continued with the beginning of the new millennium. This development influenced greatly the education sector. Besides contributing towards the nation's GDP through the generation of more jobs, education products and related supporting services, the education sector was the sector that produced the human resource needed to develop the country. This sector became more important following the government's effort to develop the k-economy. Changes in the global economy had caused, throughout the world including Malaysia,

a paradigm shift in the direction of education at the university level and subsequently in the education motif. Figure 1 shows the relationship between globalisation of economies and the teaching of geography.

Whether we are aware or not, the globalisation of economies has changed the education motif, from that of knowledge dissemination and strengthening of the mind to that of income generation for the GDP of the country. Among other ways, this occurred through change in the country's economic structure, a direct effect of the process of economic globalisation. When a nation focused on the k-economy service sector, an economic sector based on knowledge, then the education sector including the teaching of geography would be regarded as an economic product which would have to face global competition. It is hoped that the teaching of geography would bring in income from outside the country. The geography programme must be saleable and therefore in demand by foreign students. It should be competitive. At the very least, it should be a postgraduate programme offered by a higher learning institution established by the public or private sector. To adhere to the change and meet this demand, the universities would have to adjust their curriculum for the following reasons:

Firstly, the change would have to be made because the country wants to make education, including the teaching of geography, as a tool (mould) to produce human resources capable of competing. Human capital is very important for developing the production and service sectors, in particular the k-economy. The motif for the teaching of geography would be similar to the motif for teaching such professional courses as engineering and medicine. Every graduate in geography would have to compete in the open job market, not necessarily as a teacher of geography. Geography graduates should also be capable of being a consultant, researcher, manager or dynamic entrepreneur.

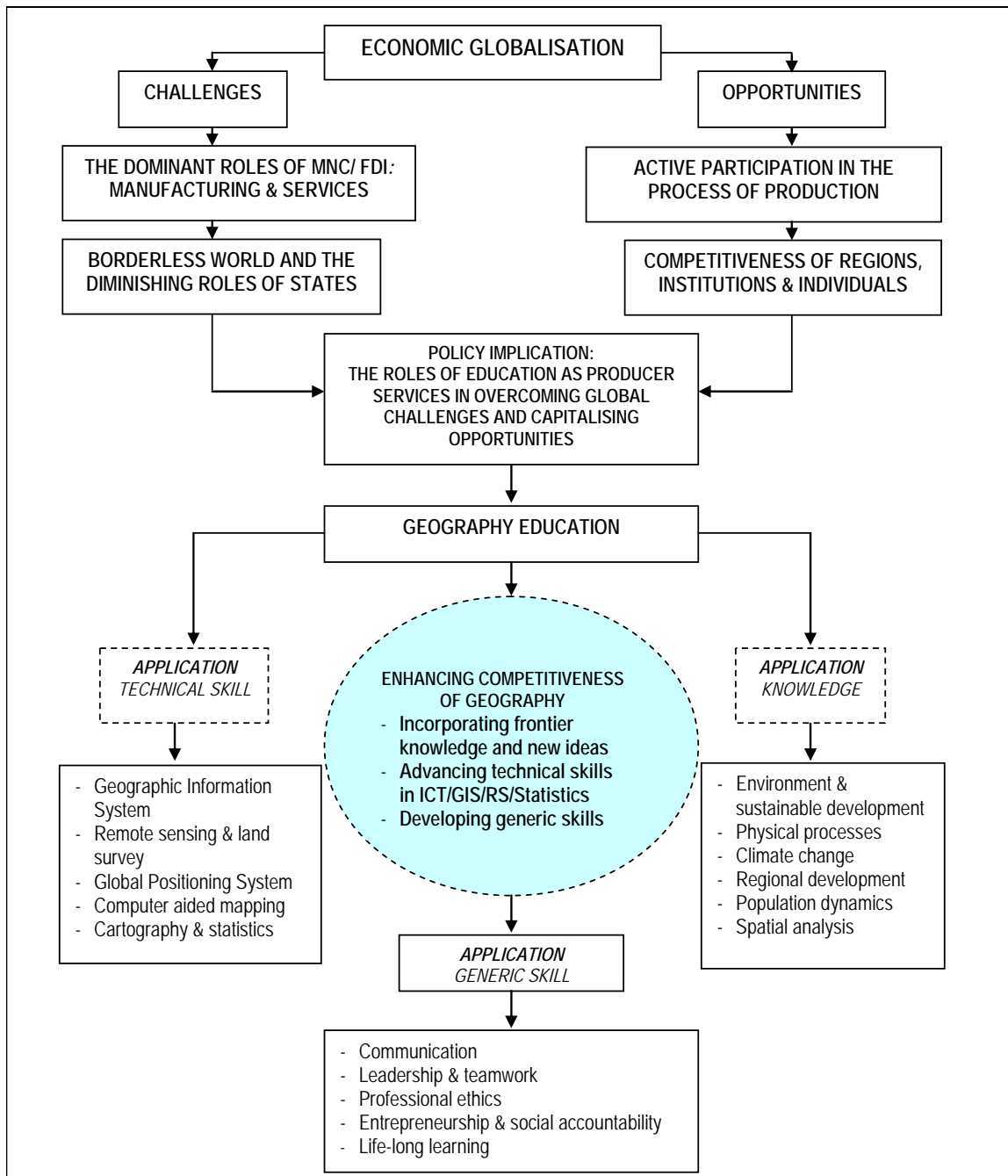
Secondly, the teaching of geography is also regarded as a medium through which awareness towards the environment would be inculcated. The ruling body, although not yet fully convinced of the importance of the teaching of geography, has begun to understand the need to foster awareness among the young towards the environment in order to fulfil the nation's objective of sustainable development. Geography graduates should step forward and lead an awareness campaign and efforts to handle the impacts on and damages done to the environment. Education in geography is in fact capable of inculcating social awareness and accountability among students. This is because the holistic nature of education in geography unites physical space and humans. Damages towards the environment have occurred through the ignorance and arrogance of humans. Only education in geography would be capable of handling in a holistic manner social issues and the issue of damage to the environment.

Thirdly, practitioners of the geography discipline and policy makers would have to initiate a reconstruction of the teaching of geography in schools, colleges and universities in order to adjust to this change. A reconstructed geography curriculum should be capable of strengthening the contributions made by the geography discipline through the development of a corpus of knowledge and advanced technical knowledge that would increase the competence and capability of geography graduates to effect change. A geographer should be a person that other people referred to, for example as an expert, a consultant, an analyst or a researcher, whose specialised knowledge is required all over the world.

In order to be able to meet the demands of the change mentioned above, three matters would have to be considered. Firstly, the strengthening of geography-based knowledge that is relevant to present-day development. A number of core disciplines would have to be included in order to provide the impetus, namely ecosystem for sustainable development; dynamics of global physical environment; spatial economic development and spatial development disparities; population, human resource and social well-being. Secondly, enhancing skills and mastery of technical knowledge based on advanced and current technologies and methodologies. This should include such knowledge as Geographic Information System (GIS), Remote Sensing (RS) and Global Positioning System (GPS). These are devices to map, detect, assess and estimate change; mapping with the aid of computer and the application of basic cartography principles and modern measuring devices; the application of statistics and the development of related statistical software; knowledge of research methodologies; the

application and management of modern equipment used during the basic course, and skills in conducting fieldwork through the problem-solving approach. Thirdly, the cultivation of skills in the field of humanity in line with the requirements of the Malaysian Qualification Framework (MQF) in seeking higher added value, as determined by the National Accreditation Board (NAB) (2006), in eight domains, namely: ability to communicate; self-reliance in learning, problem-solving and life-long research; appreciation of noble, ethical, professional and moral values; creative, innovative and critical thinking; knowledge in managing and running an organisation; accountability towards society and the environment; and ability to lead and form groups.

Figure 1: Economic Globalisation and its Implications on Geographical Education



All three branches of knowledge and skills need to be inculcated early among the young, as early as in primary and secondary schools. The status of geography in secondary schools should be

given greater prominence, at the very least by making it among the priority choices, for instance, and not regarded as a less than important subject.

The rationale for all these changes is as follows: firstly, the deterioration of understanding of geography among students and graduates, including graduates in the field of geography themselves. A reason could be the lack of opportunity to learn the subject and lack of exposure to knowledge in this subject among students at the primary and secondary levels. Another reason could be the decline in the degree of sensitivity and accountability towards the environment among society. From the geographical perspective, the deterioration of social and environmental quality is studied in a consolidated and holistic manner. It is not looked at from only one angle. This perspective can only be formed through education in geography that is comprehensive. Thirdly, the deterioration in the quality of the environment and the people's well-being. Who would have ever thought that within such a short time, not even 50 years, our land, water resources, marine life, the atmosphere and bio-diversity would deteriorate to such a critical level? These resources are increasingly threatened or have become extinct. What would the future generations inherit? To conserve these resources would require an enormous amount of money. One need only consider the cost to clean up a single river. This is before we even start to consider the cost of treating diseases such as cancer, hepatitis B, JE, bird and swine flues, asthma and dengue fever. Many of these diseases can be linked to a dirty environment. Education in geography should be capable of providing the basis for inculcating awareness towards social imbalances, damage to the environment and extinction of species.

Generally speaking, in this era of globalisation, education in geography should have a clear purpose and direction, that is, to be an agent of change. A geographer should not hope to become only the guardian of a lighthouse who guides ships and sailors, or a prophet of doom who is constantly claiming that the end of the world is near, but rather an advocate and a leader to convey to the global community the message as to how we should behave towards and interact with our fragile and sensitive habitats. In addition, a geographer should also be an advocate for every new invention as regards method and technique by using the latest technology and ICT to detect global changes in the environment. A geographer should be involved in environmental awareness campaigns and consultation work to study the impacts of unsupervised social and environmental development projects (EIA and SIA). Finally, a geographer should also be the advocate of any policy that promotes social well-being, balanced development and sustainable development.

4. Conclusion

The wave of economic globalisation has yet to ebb. It is in fact becoming bigger and moves ever forward to touch and influence every corner of the globe. Its impact on our nation has been quite obvious. Malaysia is now being carried along by the wave and is becoming a nation emphasising on making its production and service activities the most advanced and concentrating them in metropolitan areas. An advanced service sector in metropolitan areas is important in order to vitalise the growth of the nation's economy. Regions, institutions and individuals have to compete with one another on a global stage to maintain the growth of the nations' economies. The implications on education, in particular education in the subject of geography, are no less significant. Education in geography must compete globally. Geography graduates need to increase added value in order to be able to compete like graduates in other fields of study, for example professional fields. To face this challenge, the teaching of geography in secondary schools and universities needs to be broadened with the inclusion of new knowledge and ideas, humanistic and technical skills that are relevant to the current market. The existing advanced technology must be made use of fully.

Acknowledgement

I wish to thank Universiti Kebangsaan Malaysia (UKM) for funding part of the study on the impact of metropolitan development. I also wish to thank the Geography Department of Universiti Pendidikan Sultan Idris, Tanjung Malim for giving me the opportunity to present the original draft of this article at its national seminar.

References

- [1] Albrow, M and King, E (Eds). 1990. *Globalisation, Knowledge and Society*. London: Sage.
- [2] Albrow, M. 2007. A New Decade of the Global Age, 1996-2006, *Globality Studies Journal: Global History, Society and Civilisation*, No 8, 17 July. <http://www.stonybrook.edu/globality/articles/no.8.html>. (Accessed 3 October 2008).
- [3] Dicken, P. 1992. *Global Shift. The Internationalisation of Economic Activity* (2nd ed). London: Paul Chapman Publications.
- [4] Ishak Yusof. 2006. Penyelidikan dan Pembangunan, Keupayaan Inovasi dan Pembangunan Teknologi. In Ishak Yusof, Nor Aini Idris & Basri Abdul Talib (Eds). *Ekonomi Malaysia ke Arah Pascaindustri*. Bangi: Penerbit UKM.
- [5] Katiman Rostam. 2001. *Dasar dan Strategi Petempatan dalam Pembangunan Negara*. Bangi: Penerbit UKM.
- [6] Katiman Rostam. 2006. Pemandaran dan Perkembangan Wilayah Metropolitan Lanjutan Lembah Klang-Langat, Malaysia. *Jurnal e-Bangi*. 1 (1): 1-27.
- [7] Lundquist, P & Power, D. 2002. Putting Porter in Practice? Practices of Regional Clustering: Evidence from Sweden. *European Planning Studies*, 10 (6): 685-704.
- [8] Malaysia 2006. Jabatan Pengurusan IPT (Awam dan Swasta), Ministry of Higher Education Malaysia. http://www.phed.gov.my/Services/IPTS_Directory.aspx?m=B&c
- [9] Malaysia. 2006a. *Ninth Malaysia Plan 2006-2010*. Kuala Lumpur: Percetakan Nasional Malaysia Bhd.
- [10] Malaysia. 2006b. *Bank Data Negeri/Daerah Malaysia 2005*. Kuala Lumpur: Department of Statistics, Malaysia.
- [11] Marshall, R. 2003. Asia Megacities. In Robbins, E and El-Khoury (Eds). *Shaping the City – Studies in History, Theory and Urban Design*. London: Routledge.
- [12] Mera, K. 1973. On Urban Agglomeration and Economic Efficiency. *Economic Development and Cultural Change* 21 (2): 309-24.
- [13] MID. 2006. Malaysian Industrial Development Authority. Putrajaya: MITI.
- [14] Mittelman, J. (Ed). 1996. *Globalisation: Critical Reflections*. Boulder & London: Lynne Reiner Publishers.
- [15] MQA. 2006. Malaysian Qualifications Framework: National Accreditation Board. <http://www.lan.gov.my/pdf>. (Accessed 3 October 2008).
- [16] Ohmae, Kenichi. 1985. *Triad Power: The Coming Shape of Global Competition*. New York: The Free Press.
- [17] Ohmae, Kenichi. 1990. *The Borderless World*. New York: Harper Collins.
- [18] Ohmae, Kenichi. 1997. *The End of the Nation State: The Rise of the Regional Economies*. New York: The Free Press.
- [19] Omorogie, ME & Thomson, JK. 2001. Measuring Regional Competitiveness in Oilseeds Production and Processing in Nigeria. A Spatial Equilibrium Modelling Approach. *Agricultural Economics*, Vol 26 (3), pp 281-294.
- [20] Porter, ME. 1998. *Cluster and Competition: New Agenda for Companies, Government and Institutions on Competition*. Boston: Harvard Business School Press. pp 197-287.
- [21] Sassen, S. 2000. *Cities in a World Economy*. Thousand Oaks: Sage.