

Globalization of Higher Education Institutions in Malaysia: A Pilot Study

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Abstract— This paper discusses about the findings made from a pilot study on the globalization of Higher Education Institutions in Malaysia. The purpose of this study is to identify the impact of globalization towards higher education institutions in these five elements: higher education demand, internationalization, lifelong learning, ICT Skills and Generic Skills. 30 respondents, who are administrators from both public and private institutions of higher learning, were randomly selected to participate in the study. Questionnaires were self-developed based on literature reviews. Respondents were required to compare the importance of all the five elements before the year 1995 and after 1995. The results obtained show that all the five elements have been indicated as more important after 1995 when compared to before 1995. 1995 is chosen as the benchmark for globalization for Malaysia due to its participation as a member in the World Trade Organization. Further study with more respondents and document analysis has to be conducted to further prove the globalization of higher education institutions in the all five elements discussed by this study.

Keywords-globalization; higher education institutions; demand; internationalization; lifelong learning; ICT Skills; Generic Skills

I. INTRODUCTION

Globalization of the education system has become a normal phenomenon, especially in a developing country such as Malaysia. In order to compete in a globally competitive economy, education system of a nation needs to be able to fulfill the demands of the economic sector, in terms of knowledge and skillful workers. Global forces such as international economies, international political struggles and global communication systems have affected the institution of higher learning [1]. Therefore, Higher Education Institutions (HEIs) need to respond to the changes of the globalizing world, to be able to meet the political, economic and social demands.

For a country to be globally competitive, the development of human capital is essential. Education can be viewed as a capital good, which is used to develop human resource for economic and social transformation [2]. Globalization forces, especially in the development of technology, have resulted in increase in the need of knowledge and skillful workers [3]. These have resulted into transformation of the institutions of higher learning, which are the pillars in producing k-workers for a developing nation, such as Malaysia.

II. SIGNIFICANCE OF STUDY

This study aims at determining the changes in HEIs in Malaysia, in the aspects of higher education demand, internationalization, lifelong learning, ICT skills and Generic Skills, due to globalization, and, to provide an empirical prove as a support, besides the support obtained from literature reviews. To determine if the changes occurred in all the five elements mentioned are due to globalization, the importance or needs of the five elements are compared between two time frames, that is, before 1995 and after 1995. The year 1995 was chosen as the base for globalization because that was the year Malaysia became a member in World Trade Organization (WTO), which has resulted in a more globalized trade with nations all around the world.

HEIs have undergone major changes in Malaysia since its independence. Since the establishment University of Malaya in 1959, the number of public universities have now increased to 22. The increasing number of private institution of higher learning too, has impacted to the development of k-workers in the country. The introduction of Private Institution of Higher Education Act in 1996 indicates the recognition of role of private institutions in the development of education system in Malaysia.

This study is significant to the Ministry of Higher Education (MOHE) and all HEIs in Malaysia, either public or private institutions, in identifying and relating to how

globalization has resulted in changes in the higher education over these years. This study is also significant because it is an empirical study about the transformation undergone by the HEIs in Malaysia in all the five elements mentioned above, which are due to globalization.

III. LITERATURE REVIEW

In order to look at the globalization of the education in HEIs, it is important to understand the term of globalization. Definition given by [4], can be used as a accurate definition of globalization, who stated that – *globalization is a process in which geographic distance becomes a factor of diminishing importance in the establishment and maintenance of cross-border economic, political and socio-cultural relations. This process reaches such intensity that relations change fundamentally, and people become aware of that change. The potential internationalization of relations and dependencies creates opportunities, but also causes fear, resistance, actions and reactions.*

Reference [5] described globalization under four main headings – stretched social relations, intensification of flows, increasing penetration and global infrastructure. Cultural, economics and political aspects of the world are so interconnected through intensification of flows of social networks worldwide. Distant cultures and economics have now come face to face due to increasing interpenetration, especially through global flow of international finance and trade. All these are made possible through the extensive development of global infrastructure, especially with the development of information and communication technology.

It can be summarized that globalization is the result of economic trends, technological trends, political trends and cultural trends of the world system, as stated by [6]. The concept of global village introduced by Anthony Giddens can be seen through lifestyle of people all over the world. How has these changes impacted the education system of a country such as Malaysia? Impact of globalization to the education system can be seen through the emphasis on knowledge based economy.

Reference [7] wrote that the current trend of tranche of rapid and wide-ranging changes actually involves knowledge, which is the subject of education. Demand for knowledge workers by the economic sector has indirectly resulted changes in the education policies in Malaysia. The Ministry of Higher Education, Malaysia (MOHE) has developed a strategic plan, known as The National Higher Education Strategic Plan in 2007. This strategic plan is formulated to meet the demands of the global challenges, especially towards the development of human capital.

Globalization of the higher education in Malaysia can be seen through the wider access and availability of education now compared to before. The demand for institution of higher education can clearly be seen through the increase numbers of universities and colleges, as well in the demand for diversified programs of education. Due to the expansion of k-economy, Malaysia needs significant numbers of skilled and knowledgeable workers [8]. The establishment of institutions such as, public universities, private universities, college universities, twinning or collaboration with other

institutions, especially with foreign universities, polytechnics, community colleges and training colleges to produce skilled workers has become the first thrust of the National Higher Education Strategic Plan.

Malaysia, too, needs to enhance its capability to compete internationally, to become an international hub of higher education [8]. Therefore, internationalization of higher education, such as increase in the numbers of foreign students, as well as MOUs with foreign universities, increase mobility for research and networking linkages, credit transfers and emphasis on foreign languages, as well as the English language as an international language are some important aspects in internationalizing its institutions of higher education.

As a developing country Malaysia needs to focus on the aspect of lifelong learning, which is essential to meet the changes in the demand for more knowledge workers, especially in producing skilled workers. In an ever changing environment of the workforce demand, workers need to constantly improve themselves in terms of knowledge and skills, to remain competitive. Lifelong learning as a way of life has to be inculcated in the education system to support human capital development [8]. All these will result in the increase of enrolments for graduate studies and availability of distance learning, online education and the establishment of virtual universities.

Globalization has been accelerated by technology. The increase use of Information and Communication Technology (ICT) has resulted in the increasing global presence. Huge investments made by HEIs in enhancing its ICT facilities, indicates the recognition of the role of ICT for education development. [7] stated that the internet is a key component of school and university life, experienced by not only students and teachers, but also by academicians. Use of online database by libraries of universities is rapidly growing. ICT plays an important role in students' lives, which can clearly be seen through the use of databases in the form of digital journals, websites, email, multimedia presentations [7], as well as the availability of Wi-Fi services in institutions of higher learning.

Many comments have been made about the lack of soft or generic skills among undergraduates produced by HEIs in Malaysia. By instilling soft or generic skills among undergraduates, it will increase their employability skills, as well as in producing productive and knowledge workers. In 2006, MOHE has proposed a module to develop soft skills among students of higher education institutions. Eight skills which have been identified are communication skills, problem solving and critical thinking skills, team work skills, continuous learning and information management skills, entrepreneurial skills, ethical and moral professional skills, management skills and leadership skills [9]. All these skills are also known as generic skills, which are critical elements in surviving in a globally competitive workforce environment. The implementations of these skills are embedded in the teaching and learning processes, co-curricular activities and through campus life [8].

It can be summarized that globalization has demanded changes to be made in the HEIs, to ensure that the education

system can provide quality, creative, innovative and competitive workforce for the development of a knowledge driven economy. Therefore, it is important to look into how the demand for education, internationalization, lifelong learning, ICT Skills and Generic Skills are changes resulted by globalization, and to empirically prove it.

IV. METHODOLOGY

A. Sample and Research Procedure

This paper discusses about the result of a pilot study findings, and also with the purpose of identifying the validity and reliability of its instrument. A total of 30 respondents were randomly selected from four HEIs, whereby, the respondents were deans, deputy deans and department heads, who were randomly chosen from four HEIs, from the state of Selangor and Perak, Malaysia. Out of the four HEIs, one is a public university and three are private institutions of higher education. 20 of the samples were from private institutions of higher education and 10 were from the public university. The questionnaires, which are the main instrument of this study, were personally distributed and collected by the researchers, within the time frame of one month.

B. Instrument

The main instrument for this study is questionnaire. Questionnaires containing a set of 120 questions have been developed for this study. Items were built based on literature reviews and to test its validity and reliability, 30 respondents were chosen randomly to answer the questionnaires. As stated earlier, respondents were deans, deputy deans and departments heads. The questionnaire is divided into two parts. Part One consist of two questions about the type of institution and title of the post held by the respondents, while Part Two contain questions regarding the five elements, which are – education demand, internationalization, lifelong learning, ICT Skills and Generic Skills.

The set of questions for education demand are separated into two parts, first part contains questions to look into the trend of demand for higher education institutions, and the second part looks into the trend in the demand based of fields or programs. After the questionnaires were distributed and collected, all data were processed using SPSS 11.5 to measure its validity and reliability, as well as to obtain the findings of the pilot study. The Cronbach Alpha value for reliability obtained is 0.96.

Respondents were asked to answer by using Likert Scale of one till seven, one indicating the least important and seven as the most important. Respondents were required to rate the importance of all the five elements to institutions of higher education before 1995 and after 1995. Again, as mentioned earlier, the elements are: demand for education, trend of internationalization, life long learning, ICT Skills and Generic Skills. It is reminded here again that, 1995 indicates globalization for Malaysia, because that was the year Malaysia became a member of World Trade Organization (WTO).

V. FINDINGS AND DISCUSSION

This paper discusses about the findings made from a pilot study, based in these five elements: the importance of education demand based on type of institutions and education fields/programs, trends of internationalization, lifelong learning, ICT Skills and Generic Skills. Data were analyzed using descriptive method, that is, to identify mean and standard deviation (SD) values for each element. Two mean and SD values were obtained for each elements, one indicating either the importance or trend of that particular element before 1995, and, another indicating the same information, but for after 1995. Results were then compared to determine if each of the elements was either given more importance after 1995, or has it been the same.

TABLE I. DEMAND FOR HEIS

Demand	n	Mean	Std. Deviation
Demand for HEIs before 1995	30	5.1526	0.66898
Demand for HEIs after 1995	30	5.6429	0.63609

From Table 1, based on the mean result obtained, it can be seen that demand for HEIs before 1995 and after 1995 seems to differ, but only at a small difference. Mean scored before 1995 is lower compared to after 1995. The mean score before 1995 is 5.1526 and the score for after 1995 is 5.6429. This indicates that demand for HEIs, despite having a difference, doesn't seem to be affected much by globalization. Despite of the efforts made by MOHE to widen access and equity of education by diversifying as well as increasing the numbers of institutions of higher education [8], the result obtained by this pilot study indicates that not much difference exists in demand for HEIs either before or after globalization.

TABLE II. DEMAND FOR EDUCATION FIELDS/PROGRAMS

Demand	n	Mean	Std. Deviation
Demand based on field/programs before 1995	30	5.2727	0.75494
Demand based on field/programs after 1995	30	6.1526	0.64333

Educational field which were mentioned in the questionnaire for this study, are the fields of Vocational & Technical, Computers & ICT, Business, Economics and Entrepreneurship, Profesional Fields such as medicine and engineering, Teachers Education, Biotech, Social Sciences and Agriculture. Based on the results obtained, as in Table 2, there is a difference in the value of mean obtained, which is +0.8799, whereby, the mean score obtained for the demand of education fields/programs before 1995 is 5.2727, and the mean scored after 1995 is 6.1526. This indicates that the demand on the fields or programs mentioned above were less important before 1995 when compared to after 1995. The effort made by MOHE to diversify field of education to produce workforce from diversified qualification [8], shows that globalization has an impact, but, a small impact.

TABLE III. TREND FOR INTERNATIONALIZATION OF HEIS

Demand	n	Mean	Std. Deviation
Internationalization before 1995	30	4.7321	1.15440
Internationalization after 1995	30	6.1571	0.72747

The trend of internationalization of HEIs seems to have a difference in the mean score obtained, as stated in Table 3. The mean for internationalization trend before 1995 is 4.7321 whereas the mean score obtained after 1995 is 6.1571. This gives the indication that globalization has made a positive impact on the trend internationalization of HEIs. However, internationalization has been around for centuries. As written by [10], for centuries students have travelled to other countries to broaden their learning and widen their cultural horizons. Despite this, internationalization has been intensified by globalization. In an increasing interdependent world, with the expansion of communication networks, has made international experience necessary [10]. Besides, with the availability of equipments, expertise, research facilities and infrastructure, as well as educational mobility involving students and academicians, and scholarships [10], has made internationalization of education unavoidable.

TABLE IV. TREND FOR LIFELONG LEARNING

Demand	n	Mean	Std. Deviation
Lifelong Learning before 1995	30	4.4082	1.13070
Lifelong Learning after 1995	30	5.8673	0.71262

Lifelong learning for the purpose of this study includes elements such as supply and demand of graduate studies, and establishments of long distance and virtual, as well as online education. Based on the result shown in Table 4, there is a difference of +1.4591 in the value of the mean before 1995 and after 1995. The mean score obtained for trend on lifelong learning before 1995 is 4.4082, whereas the score obtained for the same trend after 1995 is 5.8673. This does indicate that globalization has made a difference to the trend of lifelong learning, as indicated by [7], who stated that knowledge based economy has become the base of the world economy today. Therefore, to produce human capital for the workforce, lifelong learning has become an important agenda to institutions of higher learning, which can be seen through the increase in the numbers of students enrolling for graduate studies.

TABLE V. TREND FOR ICT SKILLS

Demand	n	Mean	Std. Deviation
ICT Skills before 1995	30	3.4643	1.41497
ICT Skills after 1995	30	6.2857	0.70863

Technology is the core of globalization. As indicated by [4] and [5], the world has become closer economically, politically and socially, which has been infrastructured by significant growth in ICT. Based on the result obtained, as in Table 5, the mean score obtained for the ICT skill is 3.4643, compared to after 1995, which is 6.2857. There is a significant difference in the trend of ICT usage in HEIs

before 1995 and after 1995. In Malaysia, ICT has been given of more importance through the development of Multimedia Super Corridor (MSC) in 1995 and National Information Technology Agenda (NITA) in 1996. [11] wrote that communications technologies have broaden the scope and size of HEIs market reach and it is replacing face-to-face classroom contact. This is true, as the trend now is virtual and online experience of learning, with the wide use e-learning and mobile learning methods, even the use of Social Networks, such Twitter and Skype, are being absorbed into HEIs.

TABLE VI. TREND FOR GENERIC SKILLS

Demand	n	Mean	Std. Deviation
Generic Skills before 1995	30	4.9592	1.05685
Generic Skills after 1995	30	6.3367	0.71504

The mean score obtained in the trend of instilling generic skills is higher after 1995 compared to before 1995. The mean score for the trend on generic skills before 1995 is 4.9592 whereas the mean score after 1995 is 6.3367. This indicates that generic skills, also known as soft skills are given more importance in HEIs. Knowledge works who are creative, innovative and competitive [8] can be developed by instilling generic skills. Development of human capital is essential to enable Malaysia to compete in a more globalized economy. When developing skills, it should not only be focused in enhancing job skills and knowledge. Equal importance must also be given to enhance ethical and moral skills. Malaysian government has recognized this fact; therefore the element of ethics and moral professional skills has been included as one of the elements of Generic Skills, which is now being implemented in public HEIs in Malaysia. The implementation of generic skills is in line with the second thrust of the National Mission, where Malaysia needs to produce human capital with first class mentality in order to face challenges in the knowledge based economy and the innovation field [8].

Based on the results obtained from this pilot study, it can be seen that there are positive differences in the mean score obtained in all elements discussed, indicating that globalization has resulted in the growing trend in demand for education, internationalization, lifelong learning, ICT skills and Generic Skills in HEIs in Malaysia. Significant difference can be found in the trend of internationalization, lifelong learning, ICT Skills and Generic Skills after 1995 when compared to before 1995. This indicates that HEIs are reacting towards the changes brought by globalization – to enhance human capital. The element of demand for education, despite indicating a positive trend after 1995 compared to before 1995, the difference in the mean score is not very significant. This is something which has to be looked into further.

VI. IMPLICATIONS AND CONCLUSION

Globalization of HEIs has become the most important aspect to the Ministry of Higher Education of Malaysia in terms of human capital building. The development and

implementation of National Higher Education Strategic Plan by MOHE, indicates that human development has become one of the important agenda in the education system of the nation. Seven strategic thrust has been identified towards achieving excellence in higher education, which are : widening of access and increasing equity, improving the quality of teaching and learning, enhancing research and innovation, strengthening of HEIs, intensifying internationalization, enculturation of lifelong learning and reinforcing delivery systems of MOHE [8].

The results obtained from this pilot study further strengthens the fact that increase in demand for HEIs, internationalizing HEIs, the growing trend in promoting lifelong learning, ICT Skills and Generic Skills are due to globalization. [11] has written that a New Paradigm can be built in describing the trend in HEIs –globalization through technology driven systems, new knowledge producing environment and an era of accelerating change. All these are fueled by globalization. Therefore, as suggested by [11], the new paradigm requires a system approach thinking and leading in higher education. Leaders of HEIs, need to react to the changes brought by globalization and these changes are sometimes unexpected and complex.

Knowledge workers are the key-word for human capital in a globalized environment. Through the implementation of generic skills in the teaching and learning environment in HEIs, indicates that the HEIs are taking the right steps in producing skillful workforce. However, how successful are they? Can skills be taught as a subject by itself or should it be integrated as part of the curriculum in other subjects? As indicated by [12], the model of university teaching, whereby a professor lecturing and students listen, doesn't provide practice in generic skills. Therefore, HEIs should look into the implementation of generic skills teaching and learning to ensure its success.

Globalization of HEIs too, has resulted in many challenges, such as commoditization of tertiary education [11], commercially controlled research which can limit the flow of knowledge [13] and, ranking of HEIs and world Class University which seem to have draw substantial public attention, as well as issues of transparency [14].

It can be summarized, from this pilot study; globalization has impacted HEIs, as proven through the empirical data obtained. However, further study, preferably qualitative study involving policy makers in the government will further strengthen the findings of this study.

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