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An Assessment of the implementation of Affirmative Action in education in Malaysia

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Abstract: Malaysia, in order to achieve its objective and aspiration in Vision 2020 of being a developed country by 2020 and transforming the economy into a knowledge-based one, considers the human resource development as an important strategy. Despite of Malaysian government's high investment in education, relative to GDP, the quality and competitiveness of labour force in Malaysia is debatable. The implementation of ethnic-based affirmative action policies in the country is considered as one of the reasons for its ill-prepared workforce. Given the above concerns, this thesis seeks to assess the affirmative action policies in education in Malaysia.

Key words: Affirmative action, education, policy, Malaysia, human capital.

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I. Introduction

The contribution of human capital to development, competitiveness, and equality of an economy is generally recognized (Lee & Nagaraj, 2012). Moreover, the confluence of fast technological change, globalization, and economic liberalization has prompted not only governments in developed countries but also the ones in developing countries recently to priorities skills and human resources development as a crucial strategy to maintain and improve economic competitiveness and growth.

Malaysia, in order to achieve its objective and aspiration in Vision 2020 of being a developed country by 2020 and transforming the economy into a knowledge-based one, considers the human resource development as an important strategy. The government addresses the center role of education and training in the expansion of the supply of high skilled and knowledgeable labor force (EPU, 2016). However, currently Malaysian education has to deal with many crucial issues related to the quality of human capital, and the quality of education system (Lee & Nagaraj, 2012). These weaknesses in education are considered as one of obstacles to its development (Lee & Nagaraj, 2012).

Despite of Malaysian government's high investment in education, relative to GDP, the quality and competitiveness of labor force in Malaysia is debatable (Lee & Nagaraj, 2012). The ethnic-based educational policies in the country is considered as one of the reasons for its ill-prepared workforce (Lee & Nagaraj, 2012). Malaysian education system has mainly been used as a tool to achieve political aims rather than focusing on the development of individual child (Lee & Nagaraj, 2012, p.227).

Meanwhile, being a multiethnic society, Malaysia has been encumbered by ethnic differences between "indigenous community" and "immigrant communities" (Khoo, 2005). In Malaysia, there have been political and socioeconomic inequalities among different ethnic groups since the colonial era. These inequalities led to the riot in 1969. After the riot 1969, affirmative action was implemented more widely under the New Economic Policy (NEP), which was announced after the events of 13 May 1969, as one of several efforts in order to solve those inequalities and achieve "national unity" in the post-independence years. Then following the thrusts of NEP, there have been National Development Policy (NDP, 1991–2000), National Vision Policy (NVP, 2001–2010), and the current New Economic Model (NEM, introduced in 2009).

However, although affirmative action seems to bring some achievements in reducing poverty, it is questionable if it generate the conditions for "national unity" or not. The effectiveness of NEP and the following policies are still a debatable topic up until now due to ethnic-based affirmative action policies and programs implemented within the framework of NEP and the following policies. It is usually considered that there is discrimination based on the basis of ethnic and religious differentiation in most of the policies (from national economic to educational and cultural policies (Khoo, 2005, p.5). The NEP might also have aggravated the ethnic division in Malaysia, rather than united and consolidated the nation due to its ethnic dimension (Ragayah, 2012). In Malaysia, there have been fluctuations in the trends in inequality since the end of NEP (Ragayah, 2012). Moreover, it is noticed that inequality might be widening, though the governmental figures suggest differently (Ragayah, 2012).

Given the above concerns, this thesis seeks to assess the affirmative action policies in education in Malaysia. The reason for choosing to study the affirmative action in the education is because human capital plays an important role in development. Since the independence, affirmative action, though on a limited scale, mainly focused on education and public sector employment. However, although affirmative action in education and employment has been applied for a long time, the structure of affirmative action in education has basically remain unchanged since the NEP with very vague definitions and measurements in most of official documents. Moreover, there are many questions about the long-term effect of those affirmative action on the quality of Malaysian workforce. The question of affirmative action in equity ownership lies outside the scope of this thesis, but this does not reflect its importance. The reason is because the time limit of this thesis does not allow analyzing that equity and wealth ownership policies with extensive data.

The main research question of the thesis is: **Does the implementation of ethnic-based affirmative action policies affect the quality of human capital in Malaysia, and accordingly affect Malaysia's target to build a knowledge-based economy and become an developed country by 2020?** Thus, in the first place , an overview of the affirmative action in education is required with the first sub question: "What is the affirmative action of education in Malaysia?". As affirmative action has been considered as a tool to raise Malay and other Bumiputeras participation in the education and then achieve the ultimate goal of 'national unity', the second sub question related to ethnic integration and interethnic relations in Malaysia "Does affirmative action help to achieve the ultimate goal which is to generate national unity?" and "Is the interethnic relations in Malaysia improved after the implementation of these policies?".

The rest of the paper is organized as follows. The next section discusses the methodology and data used in the paper. Section three reviews the previous literature on the particular subject of affirmative action and inequalities in Malaysia. The subsequent section present the main theoretical framework related to the issues discussed in the paper including inequality and affirmative action. The fifth section analyses affirmative action, especially in the aspect of educational policies in Malaysia with a brief evaluation of recent outcomes of affirmative action focusing on interventions increase Bumiputera representation in education. The final section finishes with conclusions and discussion.

II. Methodology and data

1. Research design and research methodologies

This study is an descriptive research about affirmative action in Malaysia with a specific reference to policies in education in order to evaluate the quality of human capital and the inter relations between ethnic communities in Malaysia since the implementation of affirmative action. The key focus of study is to provide a synopsis of affirmative action in education based on the framework of horizontal inequalities outlined in the following sections, and an briefly evaluation of recent affirmative action outcomes in education. Descriptive research design is probably the most effective design in connection to research questions of this study because it help provide answers and obtain the information concerning for the current status and context of the phenomena (de Vaus, 2001).

The main method approach in this study is qualitative method. Furthermore, the main research technique applied in order to achieve necessary information for the paper is content analysis. Content analysis refers to a method that describes and analyzes the words and terms in the text with the purpose to represent the content. In qualitative studies, content analysis mainly involves in interpreting and close reading the text (Brewer, 2016). The text used is mainly from written materials. These written materials may be derived from a wide range of different documentary sources including academic publications, websites, newspapers, magazines, and archive materials (Brewer, 2016). The apparent benefits of analysis for content of documents are inexpensiveness and flexibility, though particular data may involve special access conditions (e.g. payment). Although those documentary sources are readily available, procedure for gathering and searching for relevant literature might be time-consuming, frustrating, and highly protracted (Brewer, 2016). Publications under investigating are mainly related to the topics on inequality, education and affirmative action. Using a large number of documentary sources with criticism is necessary. The principles of handling documents are taken from Scott (1990) with four criteria: authenticity, credibility, representativeness and meaning (pp. 1-2).

2. Data

The data of this paper chiefly come from the secondary sources. The data used for the study derives from the main documentary materials, including carefully reviewed scientific books, articles and journals. They are also from the sources of Malaysian government and international organization, including published government documents, annual reports, documents of ministries, official websites of ministries, as well as from books, studies, articles, press clippings, political parties manifesto, parliamentary debates and similar literature. The data are collected and then utilized to compile tables and figures in order to demonstrate the main point of the paper.

Secondary data is the data acquired not by the writer themselves but by someone else (Vartanian, 2010). The main advantage of utilizing secondary data in researches is that it is possible to acquire necessary information while saving time and efforts (Vartanian, 2010). This is vital components for projects with time and resource restricted such as a master thesis. Reanalysis existing data may also offer new interpretations of the existing data (Vartanian, 2010).

3. Limitations

Nevertheless, limitations might be unavoidable in any researches. First of all, there are some disadvantages in the secondary data used in the paper. The main disadvantage of using secondary data is its reliability (Vartanian, 2010). In order to avoid this shortcoming, it is essential to choose the sources of secondary data used in this research carefully in regard of source criticism criteria, which are mentioned above. Furthermore, ethnicity is a sensitive topic in Malaysia so there is a shortage of the data related to ethnicity, especially in academic achievements by ethnic groups, in Malaysia on public and academic resources.

III. Literature Review

Affirmative action has been implemented in many countries all over the world. Although there are specific requirements differences depending on the political system of countries,

generally it is designed for targeted groups in society for the purpose of raising their presentation in socio-economic areas (such as education, employment, business, etc.) where they are underrepresented in the past. Accordingly, there are a great deal of literature examine affirmative action based on different approaches.

Sabbagh (2004) provides an investigation of affirmative action implemented in different countries (South Africa, Malaysia, India and USA). According to Sabbagh (2004), in spite of sharing the general idea of reproducing group-structured inequality, affirmative action programs in different countries all over the world have various range, “regarding the identification of their intended beneficiaries, the form of the programs involved (quota/non-quota), the level (constitutional, legislative, administrative) of the legal norms from which they derive, and their domain implementation.” (p.2). By any means, there are several common matters arising from the implementation of affirmative action mentioned after the investigation of affirmative action in those countries. First of all, the consequences of affirmative action can be considered from at least two different perspectives: the immediate quantifiable objectives of affirmative action policies and more importantly, the contribution of affirmative action towards the ultimate goal of stimulating the societal integration of different groups in society. The outcomes and connection these two goals define the attainment of the preconceived social outcome, which in return “justify the final termination of affirmative action programs”. However, the affirmative action policies seem to be prolonged and difficult to be terminated in all of the countries implementing it, though it is supposed to be temporary remedy. Moreover, notwithstanding the circumstances that might lead to the elimination of affirmative action programs over time, they still persist. They even “expand in scope, either embracing more groups or spreading to wider realms for the same groups, or both” (p.34). The last matter, that is examined in order to assess these affirmative action regimes in different countries, their degree of internal differentiations (Sabbagh, 2004).

With regards to the affirmative action in Malaysia, it is likely that the affirmative action appears in the studies with broader studies inequality, national integration, development policy, or specifically the NEP. Racial preference was represented as the important aspect of affirmative action in Malaysia, in the works of Meeran (2008), Ragayah (2012) and Jomo (2004), which engage with inequality generally and related to the NEP.

Ragayah (2012) analyses the trends and patterns of poverty incidence and income distribution in Malaysia since 1970. Following the adaptation of the NEP, the incidence of poverty plunged from 52.4 percent in 1970 to 5.1 percent in 2002. Concerning ethnical dimensions, Ragayah (2012) states that ethnicity plays an important aspect of poverty in Malaysia (p. 238). With regards to poverty incidence by ethnicity, there has been sharply falls among all ethnic groups though the incident of poverty is still approximately high among Malays and other Bumiputeras (Ragayah, 2012). The changes in income inequality at three levels, including overall income inequality, urban-rural strata income inequality, and ethnic income inequality, was examined with two measurement: the income share of various household income groups, and the Gini-coefficient. The income inequality in Malaysia has been fluctuated since 1970, though it decreased during most of the NEP period. According to Ragayah (2012), it is undeniable that the adaptation of NEP has brought success in reducing the poverty in Malaysia thanks to steady economic growth, but the NEP has not achieved its ultimate objective of national unity. In addition, the problems inequalities within rural and urban areas and intra-

group inequalities still remain while inequality between ethnic groups has been declining over the years (Ragayah, 2012).

Meanwhile, although Jomo (2004) agrees that some particular socioeconomic targets of the NEP (for example, poverty reduction) have been met, he criticizes its focus on the rural Malaysian peasants mainly and its negligence in other rural laborers, such as estate workers and mine workers, as well as public works and land development contract laborers. In addition, Jomo (2004) argues that poverty reduction has been mainly thanks to increasing incomes, which have been prompted by full employment and productivity increases rather than an outcome of NEP poverty eradication measures. However, it is doubtful that these socioeconomic achievements of the NEP has helped in bringing about the national unity, specifically improving interethnic relations (Jomo, 2004). By deciding to continue the basic thrusts of the NEP with the racial preference policies (in 1991 and 200), Malaysian government missed the chance to establish new policies “in the interest of greater economic efficiency, more rapid growth and fairer distribution” (Jomo, 2004).

Meeran (2008) also reviews the economic policies in Malaysia in order to explain for her recent success in economic growth. Although he finds that the economic success partly thanks to some policies under the adaptation of the NEP, two derivative goals are not achieved: the bumiputera share-capital quota and the elimination of inter-ethnic income inequality (Meeran, 2008). With regards to income gap between ethnic groups, he excoriates the method to measure inter-ethnic income disparity, which is the ratio of mean bumiputera to non-bumiputera monthly household income, provided by the government. The results as measured seem to be incorrect and misleading. Moreover, the Bumiputeras are provided with many ethnic preference subsidies which are not included in the official inter-ethnic income ratio (Meeran, 2008). Therefore, Meeran (2008) highly recommends that this method is not adequate to address “Malaysia’s most serious poverty problem, that of the rural poor” (p. 103).

With regards to the studies analyzing affirmative action in Malaysia per se, Lee (2005) provides a full examination on the pursuit of affirmative action for the purpose of raising Malay participation in the economy and higher education. First of all, the implementation of affirmative action started before 1971, but it was systematized after 1971 with the introduction of NEP. Lee (2005) argues that affirmative action does not contribute to the process of ethnic integration in multi-ethnic Malaysian society. Moreover, ethnic preferential policies also widen intra-ethnic inequality (Lee, 2005). Furthermore, affirmative action policies seem to affect Malaysian economic competitiveness adversely and, thus, the national aim to achieve a knowledge-based economy (Lee, 2005). However, Lee (2005) does not provide an approach to explain the motives behind the ethnic foundation of affirmative action in Malaysia.

Respecting the studies using the concept of horizontal inequalities, the case of affirmative action is mentioned in Stewart (2008) as a successful case of using affirmative action in order to reduce the persistent socioeconomic inequalities. Stewart (2008) considers the success of affirmative action mainly based on the policies and program under the NEP.

Using the concept of horizontal inequalities proposed in Stewart (2008), this thesis evaluates the implementation of affirmative action in Malaysia. This paper contends that the implementation of affirmative action in Malaysia is a lengthy process as revealed in Lee (2005). It began before the NEP, though indeed was carried out systematically under the NEP. After

conclusion of the NEP, it has been extended under the NDP and NVP. Concerning its objectives, first of all, it is undeniable that the affirmative action in Malaysia raised the representation of Malays and other Bumiputeras (grouped as Bumiputeras in official documents and considered as the disadvantaged group) in business, employment, and education. However, regarding the objective of societal integration, the affirmative action in Malaysia should not be viewed as a successful example because the ethnic tie plays more important role in many socioeconomic area nowadays after the comprehensive implementation of the affirmative action. Moreover, under the NEP, ethnic-based policy become a norm in Malaysia, which have generated resentment among the minority groups. In addition, the prolonged affirmative action in Malaysia also raise some concerns over reducing standards and efficiency. In the case of the affirmative action in education, it would affect the quality of human capital by setting the difference standards for each ethnic within one education system based on ethnicity and eventually development process of the country.

IV. Theoretical background

This paper suggests that though there are some differences in affirmative action in countries implementing it all over the world, there is one common argument which is to break the inter-group inequalities based on the concept of horizontal inequalities. Affirmative action refers to measures designed to address the inequalities faced by a designated group in the population. The disadvantaged group historically and persistently has been underrepresented in particular socio-economic areas. However, there always has been an objective debate over adoption of affirmative action because while affirmative action might contribute to reduce horizontal inequalities, it might affect the longer-term transformation of the society. This section will analyze the approach of horizontal inequalities to have the knowledge about the nature of horizontal inequalities before moving to the discussion on affirmative action.

1. Horizontal inequalities

There are many ways to view societal inequality. One crucial method is to differentiate between horizontal and vertical inequality. Horizontal inequality refers to the inequality among defined (or constructed) groups which usually share same identities, while vertical inequality is defined as inequality among individuals (Stewart, 2008). These identities might be shaped by religion, ethnic tie or racial affiliations, or other salient elements which attach groups of people together (Stewart, 2008, pp.12 - 13). Accordingly, there are many methods to categorize people, such as geography, behavior, language, physical characteristics etc. Therefore, the groups mentioned here can be various. For example, ethnic groups (which are defined by history, languages, symbols, and behavior); immigrant groups (which differentiated by history, and sometimes by physiology, language, etc.); racial groups, (which are characterized by different physiology, history, and sometimes language); and religious groups, (which are separated by faithfulness to particular beliefs, membership of religious institutions) (Stewart, 2008).

Group identities are determined not only by the perceptions of members in a particular group but also by the perceptions of outsiders (Stewart, 2008, p.7). However, while some differences among group identities are recognized as being socially significant, the others are not, both by group members themselves or by outsiders (Stewart, 2008, p. 8). The differences among group identities will be more emphasized with the action of many agents (leaders, organization, ordinary rank and file actors), and tools (social media) in society. According to

Stewart (2008), political action (for example political leader, media or education system) gives the salience to particular identities over another (p.12).

The group mobilization along the lines of ethnic identity might lead to the latent conflicts. However, the violent conflicts only happens when cultural differences, especially ethnic differences, coincide with major economic and political disparities (Stewart, 2008, p.12). The severe and consistent economic, social, and political differences between culturally defined groups, which named multidimensional horizontal inequalities, strongly motivate the leaders and followers of the groups to mobilize the groups (Stewart, 2008).

Horizontal inequalities are multidimensional and complicated in nature. Multidimensional horizontal inequalities include four main categories: political participation, economic aspects, social aspects, and cultural status (Stewart,2008, p.13). Each of these categories contains a number of sub elements (Stewart, 2008, p.13). For example, there are political horizontal inequalities at different level (the cabinet, the parliament, the bureaucracy, local government or the army). Economic dimension include access to and ownership of various kinds of assets, employment opportunities, and incomes. The social aspects of horizontal inequalities have access to different services (education, health, water, sanitation, and housing), and human outcome indicators (for example measure of health and educational achievements) (Stewart, 2008). Nevertheless, although there is relevance of these four broad categories in every society, the relevant sub elements in specific cases are different depending on the characters of each society (Stewart, 2008, p.13). In addition, there are causal connections among different dimensions of horizontal inequalities (Stewart, 2008, p.13). For instance, inequalities in political power commonly prompt related social and economic inequalities. Moreover, there are linkages between economic and social elements (Stewart, 2008, p.13).

Furthermore, horizontal inequalities has tendencies to be persistent. Due to the complexity of interactions of these dimensions, it seems to be difficult to find out the reasons for the persistence of horizontal inequalities in society. Stewart and Langer (2008) classify into five main reasons behind the persistence of horizontal inequalities (pp. 80 - 81):

1. Unequal rates of accumulation, due to inequalities in incomes and imperfect markets
2. Dependence of the returns to one type of capital on the availability of other types
3. Asymmetries in social capital
4. Present and past discrimination by individuals and nongovernmental institutions
5. Political inequalities leading to discrimination by governments.

It is necessary to combating the persistent horizontal inequalities because these inequalities might lead to the violent conflicts and social instability. Serious inequalities might be a source of poverty and economic inefficiency in a nation (Stewart, Brown & Langer, 2008).

2. Affirmative action

The policy managing socioeconomic inequalities is affirmative action (Stewart, Brown & Langer, 2008). Affirmative action is designed for deprived groups in society in order to increase their representation in many areas of society (such as employment, education, and business), in which they had been excluded due to historic discriminations (Lee, 2005).

According to Stewart et al. (2008), there are three approaches to formulate policies in order to managing horizontal inequalities which are direct approaches, indirect approaches, and integrationist approaches. As other policies towards horizontal inequality, affirmative action policies can be classified as direct and indirect approaches. Following table will provide some examples about the policies to reduce socioeconomic inequalities, or the affirmative action:

Table 1: Policies towards socioeconomic inequalities

Dimension	Policy Approach		
	Direct policy	Indirect policy	Integrationist
Socioeconomic inequalities	Quotas for education or employment; special investment or credit programs for particular groups	Antidiscrimination legislation; progressive taxation; regional development programs; sectoral support programs. Freedom of religious observance; no state religion	Incentives for cross-group economic activities; requirement that schools are multicultural; promotion of multicultural civic institutions.

Source: (Stewart, Brown & Langer, 2008; Table 14.1)

Indirect policies mainly appear neutral but was designed to benefits the designated groups. For instance, regional policies target to the specific region where members of the deprived group consists majority of the population. However, the policies based on indirect approaches are not always useful and “partially in their impact” when the demand for change and resolution for the inequalities is often urgent (Stewart, Brown & Langer, 2008). Therefore, many countries have been adapted more direct approaches in order to reduce horizontal inequalities. Direct policies refer to the policies that grant advantages directly to members of deprived groups , including targets and/or quotas and public expenditure to generate a more equal distribution (Stewart, Brown & Langer, 2008). However, the direct policies inevitably raises the salience of identity difference, while the indirect policies is generally impartial in that matter, but they might support the further integration naturally over time (Stewart, Brown & Langer, 2008, p.312). Therefore, direct policies should be applied within a certain time limit because the final objective of the implementation of affirmative action is to reduce the salience of identity differences among groups (Stewart, Brown & Langer, 2008, p.312). Government in some countries might apply the third type of policy which is integration policies, which unequivocally address the salience of group boundaries by increasing integration and pay less attention to horizontal inequalities reduction. (Stewart, Brown & Langer, 2008).

Nevertheless, affirmative action policies are considered controversial and divisive due to the difficult to assess their effectiveness and their relative negative side effects. Therefore, there are many suggestion against the concept of affirmative action. First of all, the implementation of affirmative action brings out the concerns related to standards decrease (especially in the case of affirmative action in education) and economic efficiency (Stewart, Brown & Langer, 2008). Even if it is likely to achieve economic objectives (for example, enhancing education attainment, or income of deprived groups), the affirmative action policies might also create negative sociological impacts, such as increased resentment towards targeted groups among the other groups in society and increased entrenchment of group identities. Moreover, categorization

involved in affirmative action policies might increase the group boundaries and worsen inter-group relations in the long term (Stewart, Brown & Langer, 2008).

The concept of horizontal inequalities offers a means to understand the justification for the implementation of affirmative action. It is argued that addressing horizontal inequalities is necessary to build a just society. First of all, horizontal inequalities is considered to affect social stability adversely because they might increase the risk of violent conflict. Moreover, when there are substantial inter-group inequalities, it is implied that there might be unequal opportunities for many people and inefficient distribution of resources. If there are persistent horizontal inequalities over time, there should be affirmative action policies to resolve or reduce them. However, as mentioned above, the affirmative action policies, especially the direct policies, should only be implemented for a limited duration regarding the concerns over the standards and economic efficiency. The affirmative action will be examined on two perspectives quantitatively and qualitatively as mentioned in Sabbagh (2004). In the case of education, there also should be attention to the academic standards besides assessing the quantitative and qualitative perspective. The preferential treatment granted to one student, who belongs to disadvantaged groups, can lead to the exclusion of some other student from education regardless of their academic qualifications. The effectiveness of affirmative action in education, especially in higher education, even for targeted beneficiaries should also be given proper considerations. There is the possibility that affirmative action can hurt targeted students by placing them in scholarly circumstances which unsuitable for them. Furthermore, when the education system works chiefly based on targeted direct affirmative action policies for a long period, the quality of human capital, which is the product of the education system, in generally will be affected. Moreover, it also impact negatively on societal integration by creating the resentment from the groups which do not receive preferential treatment.

V. Empirical Analyses

The primary concern of this thesis would be the implementation of affirmative action policies in education as a best method to resolve or reduce socioeconomic horizontal inequalities between ethnic groups in Malaysia, and then its impacts on the quality of human capital and development process. Following that concern, this section will be divided into three sub sections to give a close analysis about the affirmative action in Malaysia. First of all, it is useful to have an overview about ethnic structures because the affirmative action in Malaysia is chiefly built on the ethnic dimensions. Secondly, an investigation of the horizontal inequalities in Malaysia will be carried out to understand justification for implementation and extension of affirmative action in Malaysia. Finally, the main focus of this section will be the analysis of affirmative action in education. The affirmative action will be examined on two quantitative and qualitative perspectives. It is also necessary to study its impact on the quality of human capital, given that the common criticism of affirmative action in education is that it would reduce standards of education system and thus quality of human capital. A poor quality of human capital might hamper Malaysia's goal to upgrade to a knowledge-based economy and transform to a developed country by 2020.

1. Ethnic structures

Federation Malaysia, a Southeast Asian country, consists of two principle geographical regions separated by South China Sea: the Malay Peninsula, now usually called Peninsular

Malaysia and Malaysia Borneo, used to call East Malaysia. Peninsular Malaysia borders Thailand to the north and Singapore to the south, while Malaysia Borneo consists of the northern portion of the island of Borneo (Saw, 2007). The Federation of Malaysia has a total of thirteen states in the present. Eleven states in Peninsular Malaysia, which formed Federation of Malaya, attained its independence in 1957 (Saw, 2007). In 1963, Federation of Malaya united with two states in the island of Borneo (Sabah and Sarawak) and Singapore to form the Federation of Malaysia, but Singapore seceded from Malaysia in 1965 (Saw, 2007).

Malaysian society has cultural diversity and complexity based on the basic ethnic and religious differentiations. Moreover, considering Malaysia's long history with many changes in political structure (from pre-colonial Malay states, British Malaya, independent Malaya, Malaysia between 1963 and 1965, and post-1965 Malaysia), it is challenging to provide a complete picture about the changes in Malaysian demographics (Khoo, 2005). However, it is necessary to present an overview of Malaysian demographics with many main points related to the discussion of the thesis.

The population in Malaya increased sharply from 1911 to 1957 mainly because of mass immigration from China and India (Khoo, 2005). In this period, the population of Malaya almost tripled, from 2,338,951 residents in 1911 to 6,278,785 in 1957 (Khoo, 2005, p.2). After the merger of Malaya with Sabah, Sarawak, and Singapore in 1963, Malaysian population is 9,007,414 in total. There were an decrease in the Malaysian population due Singapore's secession in 1965, but it then increase to 10,319,324 in 1970 (Khoo, 2005, p.2). The influx of Chinese and Indian immigrants to Malaya before independence is because of the colonial policy on increasing the population of British Malaya (Khoo, 2005). According to Khoo (2005), under the colonial area, the intention of colonial policy on the population was encouraging mass Asian immigration to Malaya which was similar to the practice in other British colonies such as Burma, East Africa, and Fiji, instead of building a "white settler" following the example of Australia, Canada, New Zealand or South Africa (p.2).

Malaysian population was divided into ethnic groups, including the "Bumiputera" or indigenous people, and non-Bumiputera or non-indigenous people (Saw, 2007). This classification became official since 1970 (Khoo, 2005). In Peninsular Malaysia, the term "Bumiputera" refers to about completely of the Malays and the Orang Asli (aboriginal communities), while in Sabah and Sarawak, it comprises of a greater variety of native ethnic communities within the Bumiputera (Saw, 2007). For the whole of Malaysia, the non-Bumiputera category has been assuming mainly to two other main ethnic groups: the Chinese and Indians. They started to have a significant demographic presence in Malaysia with, initially, the floods of immigration, from China and India respectively, during the nineteenth and early twentieth centuries and, in this manner, the mass settlement of the immigrants and their descendants (Khoo, 2005). A category of "other" communities is commonly used in most of official documents to refer to residents of ethnic minorities, including Burmese, Eurasian, Portuguese, Thai and other ethnic origins (Khoo, 2005). Currently although ethnic diversities in Malaysia are quite complex, especially in Sabah and Sarawak, the multiethnic society of Malaysia is normally described as comprising three main ethnic groups – Malays, Chinese, and Indians (Khoo, 2005). The proportion of the Malays in the population increased from 45.3 percent in 1997 to 54.6 percent in 2010, and the share of other Bumiputera also grew from 10.4 percent to 12.8 percent from 1970 and 2010. During the same period, the share of the Chinese

saw an increase from 33.8 percent to 24.6 percent, and that of the Indians fell from 9.0 percent to 7.3 percent (Table 1).

Table 2: Population of Malaysia by ethnic groups, 1970 – 2010

Ethnic groups	1970		1980		1991		2000		2010	
	Number	Per cent								
Bumiputera	5,760,804	55.7	8,012,867	58.5	10,299,900	61.3	14,248,200	65.1	17,523,500	67.4
Malay	4,685,838	45.3	6,315,000	46.1	8,521,900	50.7	11,680,400	53.4	14,191,700	54.6
Other Bumiputera	1,074,966	10.4	1,697,867	12.4	1,778,000	10.6	2,567,800	11.7	3,331,800	12.8
Non Bumiputera	4,587,792	44.3	5,676,427	41.5	6,512,400	38.7	7,641,700	34.9	8,489,800	32.6
Chinese	3,500,431	33.8	4,405,465	32.2	4,623,900	27.5	5,691,900	26.0	6,392,600	24.6
Indians	932,629	9.0	1,171,000	8.6	1,316,100	7.8	1,680,100	7.7	1,907,800	7.3
Others	154,732	1.5	99,962	0.7	572,400	3.4	269,700	1.2	189,400	0.7
Total	10,348,596	100.0	13,689,294	100.0	16,812,300	100.0	21,889,900	100.0	26,013,300	100.0

Source: Department of Statistics (2016).

Note: Total population do not include non-citizens. In the 1980 census, the data for “Indians” was recorded in the category of “Others”, though the data is insignificant

Moreover, the population is also determined by religious composition. The predominant religion in the country is Islam, with the Muslim proportion of 61.3 percent of the population in 2010 (Department of Statistics, 2010) and is considered the official religion of the country provided by the Federal Constitution of Malaysia (Khoo, 2005). Other main religion embraced in Malaysia currently includes Buddhism (19.8%), Christianity (9.2%) and Hinduism (6.3%) (Department of Statistics, 2010). Religion beliefs in Malaysia also tends to follow the ethnics lines (Saw, 2007). All of the Malays are regarded as Muslims by law. Around 76 percent of the Chinese declaring their religions is Buddhism, meanwhile the main religion among the Indians is Hinduism, with about 84 percent of the Indians following Hinduism in 2010 ((Department of Statistics, 2010).

The summary of basic ethnic and religious differentiations, given above, offers a convenient glimpse of multiethnic society in Malaysia. It can be seen that the group identity in Malaysia is formed by ethnic tie. The following section will present the differences among ethnic groups is strongly significant in Malaysia. In fact, affirmative action is shaped by the ethnic dimensions.

2. Affirmative action in education

The above overview give provide the importance of ethnic groups in Malaysia. Horizontal inequalities in Malaysia, in fact, are mainly among ethnic groups. Affirmative action in Malaysia is the preferential treatment for a disadvantaged ethnic group numerical majorities Bumiputera. This first part of this section will discuss about historical context contributed to the implementation of Malaysian affirmative action based on the concept of horizontal inequalities, and then investigate the application of affirmative action and its recent outcomes in the second part of this section.

2.1. Inequality and poverty

As mentioned above, group identity in Malaysian society is strongly based on ethnic tie-boundary lines that shaped group-identity formation in Malaysia was framed by migration and settlement patterns during British colonial rule.

British government's policies, including unrestricted immigration, divide and rule policy and the practice of separate education system (Joseph, 2008). During the colonial era, the labor was systematized by the identification of ethnicity with a specific economic role. The role of Europeans in economy were mainly to govern and administer. Immigrant Chinese labor chiefly involved in the tin mining industry and commercial sectors. The vast majority of immigrant Indian labor engaged in the rubber plantation. Meanwhile the Malays worked in agricultural production principally rice cultivation and fishing (Andaya & Andaya, 2001). Accordingly, the majority of Malays lived in rural areas, while the Chinese chiefly lived in town areas and the Indians lived in both the estae and town areas (Joseph, 2008). Between 1921 and 1947, the Chinese accounted for around 60 percent of urban population, while the Malays only made up around 20 percent of urban population (Khoo, 2005).

Furthermore, the design of education system under the colonial government, which also rested on divide and rule policy, only provided provide only the basic education for most children in their own language in order to prepare them for their assigned role in the colonial scheme (Joseph, 2008). There were schools in English, Malays, Chinese, and Tamil. English medium schools was financed by the British colonial government and Christian missionary bodies. Student enrolled on English medium schools were generally from middle class and elite of all ethnic groups. Chinese primary and secondary schools were chiefly located in various town where the Chinese community live. Tamil schools were only at the primary schools level, and mostly under the control of large rubber plantations that employed largely Indian work force (Joseph, 2008). Vernacular schools in Malays, Chinese, and Tamil received modest funds from colonial government. However, the Chinese schools had better economic and social situation thanks to the considerable financial backing from the Chinese communities, in particular business community, which was in a strong economic position during the pre-and post-independence era (Joseph, 2008).

In addition, most of the major infrastructure development under colonial government, such as roads, schools, hospitals, and other public facilities, were concentrated in the urban centers in Malaya's west coast states (Khoo, 2005; Joseph, 2008). The Chinese and Indians, who were more likely to live in towns, thus, have more access to those infrastructures, especially schools, meanwhile the Malays in rural areas seemed to be far from them (Joseph, 2008). Consequently, generally the Malays were likely to be relatively disadvantaged in comparison to the Chinese and the Indian migrants who could benefit from the expansion of urban sector by gaining some footholds in commerce or upward mobility through education and the professions (Khoo, 2005, p.11).

In 1957, Malaysia gained its independence when the power was transferred to local elite and the Alliance coalition by the British colonial government. The Alliance coalition originally comprised three ethnic-based parties – the United Malays National Organization (UMNO), Malaysian Chinese Association (MCA), and the Malaysian Indian Congress (MIC) which represented the elites from the three main ethnic groups in Malaysia. – and was led by the

UMNO. The political mobilization in Malaysia after the independence also strongly followed ethnic lines because each of the parties represented the benefit of their respective communities (Khoo, 2005). The post-independent Federal Constitution of Malaysia guaranteed a “special position” of the Malays, which was written in the article 153 of the Malaysian Constitution (Lee, 2005), which states that “Reservation of quotas in respect of services, permits, etc., for Malays and natives of any of the States of Sabah and Sarawak” (Federal Constitution, 2010 reprint). This approach to politics based on ethnic lines has raised the political inequalities between Malays and non-Malays further.

Before twelve year of independence, there has been a greater socio-economic disparity in Malaysian society, especially between the Malays and the Chinese. After the May 1969 general election turned into ethnic rioting. The expansion of the Alliance occurred through the cooptation of most of the major opposition parties, and in 1974 renamed the Barisan Nasional (BN-National Front) (Khoo, 2005). The reasons behind the riot May 16 are the coincidence between ethnic differences and economic and political disparities. Cultural and ethnic differences is common in a multiethnic and multi religious society, however the boundary line among ethnic groups in Malaysia have already been brewing between indigenous people and immigrants over time.

The British colonial government deepened boundary lines between group identity formation in Malaysia with colonial policies. Consequently, the social structure of Malaysia after the independence was defined by an ethnic division of labor, in which groups were dominantly and determinedly kept to specific occupations and industries (Khoo, 2005) (Table 2).

Table 3: Distribution of the labor force by selected occupations and ethnicity, Peninsular Malaysia, 1957

Occupation	Total number	Malays	Chinese	Indians	Others
		<i>percent</i>	<i>percent</i>	<i>percent</i>	<i>percent</i>
Rice cultivation	398,000	95.8	2.4	0.0	1.2
Rubber cultivation	614,000	42.4	32.6	24.5	0.5
Mining and quarrying	58,000	17.7	68.3	11.6	2.4
Manufacturing	135,000	19.7	72.2	7.4	0.7
Commerce	195,000	16.4	65.1	16.8	1.7
Government services	34,000	52.4	15.4	26.3	5.9
Police, home guard and prisons	52,000	83.2	9.6	4.4	2.8
Armed forces	11,000	76.8	8.8	8.4	6.0

Source: Census of Malaysia (1957)

However, it is necessary to mention that Malaysian ethnic divisions of labor are not exclusively, determined by its multiethnic and multi-religious features (Khoo, 2005). The British colonial policy in Malaya, which encouraged Asian immigrants into Malaya in order to increase the population of British Malaya, was also implemented in other British colonies such as Fiji, Burma, and East Africa (Khoo, 2005, p.2). Additionally, the ethnic division of labor was not abnormal to the organization of labor in other former British colonies, such as Burma, Fiji, Guyana, Kenya, and Uganda (Khoo, 2005, p.8).

Even after the independence, the salience of ethnic identity continue to be emphasized, instead of breaking down ethnic barriers. During the formative years of “nation identity” after the independence, ethnic disparities (including language, culture, and citizenship) and social inequalities become more serious. Moreover, there are competitions for economic resources among ethnic groups. In this competition, the Malays was considered themselves as holding “relatively economic backwardness”.

Meanwhile, the government of the Alliance, which was basically defined as laissez-faire in approach, could not resolve the ethnic divisions of labor. The Malays still mainly lived in rural areas and was considered to be economically backward. It is believed by many ethnic Malays that the dominance of ethnic Chinese in economy bear responsibility for Malay economic underdevelopment, although in the late 1960s, many key sectors of the Malaysian economy were still primarily dominated by foreign (mainly British) investors (Jomo, 2004). Up until to 1970, a substantial majority of households in the two lowest monthly income ranges is Malay households. That might have been expected, given the Malay proportion of total population. However, the Malay households’ accounting for 42 percent out of 58.4 percent of all households having a monthly income of less than RM20 suggested that the fact of the poverty of the Malay community relative to other communities (Khoo, 2005). Moreover, the majority of the Malay still live in rural areas. Even in 1970, only 21.8 percent of the entire Malay population lived in urban centers compared to 71.1 percent of the Chinese and 44.8 percent of the Indians (Khoo, 2005). In 1959, the enrolment by ethnicity at the Universiti Malaya (the only degree granting institution in Malaysia until 1970) was 60 percent Chinese, 20 percent Chinese and 20 percent Indians and others. The share of Malay students was below their proportion in the population of Peninsular Malaysia in 1957 (Sato, 2005)

In the meantime, it is believed by many non-Malays that UMNO-led Malay-dominated Alliance government bear responsibility for official government discrimination against them (Jomo, 2004). The ethnic treatment preferential to the safeguard of “special positions” of the Malays has built up the tension among ethnic groups. “The non-Malay middle and working class refused to accept the prejudice against their opportunities for employment, education and upward mobility could be prejudiced by the constitutional safeguard of the “special positions” of the Malays (Khoo, 2005, p.14).

Ethnic and cultural differences should be considered as common in a multiethnic society as Malaysia. However, the salient of ethnic tie has been emphasized by different politic system in Malaysia over time. British colonial policies and the segmented colonial education system drew boundary lines that shaped group-identity formation in Malaysia along ethnic lines thicker. Upon the independence in 1957, Malaysian society had already faced serious division in economic, politic inequalities along ethnic lines. During the years of creating a sense of nationhood after the independence, the independent government continued to highlight the boundary line between ethnic groups with the safeguard of “special positions” of the Malay and other Bumiputeras in the Malaysian Constitution. The non-Malay, facing political inequalities, mount opposition to the constitutional safeguard and political discrimination against them. Meanwhile, the underrepresentation of the Malays in many socioeconomic areas compared to other ethnic groups implied that there had been socioeconomic inequalities between the Malays and the non-Malays. Those economic, politic horizontal inequalities coincide with the ethnic differences led to the riot in May 1969. After the May 1969 riot, the government has been implemented the affirmative action in national scale in favour of the Bumiputera group. The affirmative action in Malaysia, in

the form of preferential programs and policies favoring Bumiputera population principally tackle socioeconomic inequalities faced by the Malay and other Bumiputera while the political inequalities for non-Malays, given that the political system is still being under hegemony of one party, and leading parties in the countries are based on ethnic groups with the majority of Malays.

2.2. Affirmative action in education since post-independence

Horizontal inequalities in Malaysia are mainly between ethnic groups. The salience of ethnicity has been enhanced over time by different political system. As analyzed above, there have been political inequalities and socioeconomic inequalities among Bumiputeras and non-Bumiputera groups. However, the implementation of affirmative action even before or after the riot May 1969 mainly has targeted at one group – Bumiputeras for the purpose of resolving socioeconomic inequalities facing by them, while neglecting the inequalities in the other groups.

As mentioned above, some Bumiputera preferential policies has been actually implemented before the introduction of National Economic Policy in 1971, but on a limited scale. Firstly, that was proved by the fact that the special positions of the Malays and other Bumiputeras was written in the Article 153 of the Malaysian Constitution. It is stated in Article 153 that “Reservation of quotas in respect of services, permits, etc., for Malays and natives of any of the States of Sabah and Sarawak” (Malaysia, 2006a). In general, the article safeguards the special positions of Bumiputeras. Specially, the Malays and other Bumiputera are warranted to receive preferential treatment in the public service and of scholarships, exhibitions and other educational or training privileges or special facilities (Lee, 2005). However, the affirmation action was not implemented systematically and in a national scale, but mainly in the post-secondary education and public employment (Lee, 2005).

After the racial riots of 13 May 1969, the affirmative action had been expanded and implemented systematically and comprehensively under the New Economic Policy for the purpose of improving the socio-economic conditions of the Malays. Many specific strategies and policies was established that put the Malays and other Bumiputeras in favored positions of access to opportunities and advancement within the education and training, employment in the government department and in private enterprises, for stock ownership in corporation, and for government contracts (Joseph, 2008).

The New Economic Policy (NEP) was adopted in 1971 for a period of 20 years with two major targets: “eradication of poverty” and “restructuring of society” (Malaysia, 1976). The purpose of “restructuring of society” has been implemented with the aim of addressing the disadvantages of the Malays and other Bumiputeras and raising their representation in particular socioeconomic strata. In the period of NEP (1971-1990), education and training was recognized as a mean to achieve the target of restructuring society through the restructuring of employment, besides the strategy of increasing the share of ownership by Bumiputeras. Without many major alterations, during the whole period of the NEP, the education system and curriculum were designed in order to fulfill the main target of helping the Malays and other Bumiputeras to enter socio-economic areas which they were underrepresented (Malaysia, 1971, 1976, 1981, 1986).

Under the NEP, there was a number of strategies, programs, and policies implemented within the affirmative action, especially in tertiary education. The majority of affirmative action

in education in Malaysia after the introduction of the NEP are based on direct approach focusing on quotas and targets for Bumiputera, while there have been not enough policies based on integrationist approach in order to promote the societal integration.

First of all, the transition from English to Bahasa Malaysia or Malay as medium of instruction was complete. Although, a schedule for the transition to Bahasa Malaysia in secondary schools had been started under the Education Act 1961, the process was speed-up under the period of NEP. By 1982, Bahasa Malaysia was made as the medium of instruction in the national secondary schools (Joseph, 2008). Malay/Bahasa Malaysia became the only medium of instruction in all national secondary school and in all public institutions of higher learning (Joesph, 2008). This changeover allow Malay children to gain access to education (Joseph, 2008). Moreover, education policy has not supported for the multicultural development. The various curriculum in education system emphasize Malay culture and values and Islamic region (which is national religion) in the centre of schooling system (Joseph, 2008).

At the tertiary level, there were an increase in the number of new public universities founded throughout the 1970s and 1980s, particularly in rural areas, in order to provide easier access to university to Bumiputera students (Sato, 2005). Furthermore, an ethnic quota of enrollment into tertiary education institutions was introduced in the early 1970s. The ethnic quota system of student enrolment – 55 percent Bumiputera students : 45 percent non-Bumiputeras students - reflected the ethnic composition of Malaysia at that time. This ethnic quota of enrollment existed until the introduction of the meritocracy system in 2002 (Sato, 2005). The racial quota to university admission was not only applied on the scale of the university as a whole but also on a faculty by faculty basis (Joseph, 2008).

Various affirmative action policies was also introduced to reduce inter-ethnic differences in educational attainment, especially in the fields of science and technology. These included special scholarships to Bumiputeras students and the establishment of special secondary school (such as the residential science schools and MARA (Majilis Amahan Rakyat, or Council of Trust for the Indigenous People, a key vehicle to train and assist the indigenous people aka the Bumiputears) junior science colleges). These residential science schools are funded generously from the government and have better teachers, better physical facilitates and smaller student-teacher ratio in comparison to the regular schools (Joseph, 2008; Lee, 2005). There are also matriculation or pre-university foundation courses which was launched in 1970 for the purpose of increase the number of Bumiputera admitted into the public universities, especially science and technology based faculties (Joseph, 2008; Lee, 2005). Even other governmental scholarships, which open to non-Bumiputera students, give preferential treatment for Bumiputera students (Joseph, 2014). Moreover, scholarships programs is not transparent and lacking a systematic framework for balancing merit and need consideration in the awarding of scholarships (Joseph, 2014).

Despite of the increase in the number of university, there was a shortage of places in public universities, especially non-Bumiputera students. Because of the system of ethnic quota on admissions to institutions of higher education, many non-Bumiputra students could not get places in public universities. Many of them (mainly Chinese students), then, pursued their higher education in overseas institutions. However, due to the global recession of the mid-1980s and high full tuitions fees imposed by oversea universities, less Malaysian students could afford to study abroad. Consequently, there were increases in demand for private higher education

institutions. More private colleges, partnering with foreign universities, started to offer “twinning program” which allow students to study pre-university programs in Malay before continuing to complete the degree oversea (Sato, 2005). By this mean, there were more places in higher education institutions for non-Bumiputera students.

Instead of concluding by the end of 1990s, the preferential programmes and policies towards Bumiputera continued under the implementation of National Development Policy (NDP) and National Vision Policy (NVP). The Second Outline Perspective Plan or National Development Policy (NDP) (1991–2000), and Third Outline Perspective Plan or Nation Vision Policy (NVP) (2001 – 2010) were built upon the on-going thrusts of the NEP, including eradicating poverty and restructuring society (Malaysia, 1991, 2001).

Education and training is still highly considered as a main contribution in order to fulfill the objectives of the NDP, particularly restructuring of society. As a result, there were few changes made to education policies, especially in the first five years. During this period, In the mid-1990s, private tertiary institutions grew significantly in term of numbers and varieties when there were legislative change allowing the registration of private institutions (Sato, 2005). Meanwhile, the number of public tertiary institutions also increased significantly, with the establishment of new institutions at every state and the upgrade of university colleges to university status (Sato, 2005).

Under the implementation of the NVP, there was a major policy change in 2001. The ethnic quota on admission to public university was replaced by meritocracy, where the student intake only based on either STPM (Sijil Tinggi Persekolahan Malaysia, an exam taken after a 2-year course in Form 6) or matriculation examinations (Sato, 2005). However, this is should not be considered as big improvement because there is still obvious ethnic stratification existed, given that matriculation examination is a test on matriculation program exclusively for Bumiputera students. Moreover, English proficiency has also been given full priority (Malaysia, 2001).

The current New Economic Model was announced in 2010 for the purpose of replacing the ethnic-based policy by the merit and need-based policies (Malaysia, 2011). However, there are no clear measures in order to differentiate between need-based and merit-based considerations. Transparent and market friendly affirmative action was introduced as one of the Strategic Reform Initiatives of the New Economic Model without any system to assess the outcomes to trigger its future elimination. Moreover the concept of market friendly affirmative action is presented vaguely in the document without clearly . In the recent Tenth Malaysia Plan, one of the objectives is still enhancing Bumiputera economic participation (Malaysia, 2010).

Education has been mainly regarded as an instrument for the purpose of restructuring society, specifically raising the participation of Bumiputeras in education and employment. There have been not so many major alterations in the affirmative action in education under NDP and NVP, the affirmative action in education in favour of Bumiputera remained untouched. There might be some efforts from government in order to transform to merit and need-based policies under the NEM, but without transparent, fair, accountable measures in official documents, preferential treatment to Bumiputeras in general was still placed before the principles

of meritocracy and equal opportunities. Moreover, the affirmative action is still protected by Article 153 in Federal Constitution about the safeguards of “special positions” of Bumiputeras.

2.3. Evaluation of the affirmative action in education

The following section will give an examination of the recent outcomes of the affirmative action in education. Firstly, the outcomes of affirmative action will be examined from two perspectives. The first viewpoint consider the immediate quantifiable objectives of the affirmative action including “an increase in the proportion of jobs, public contracts and seats at selective universities obtained by the targeted groups over a period of time” (Sabbagh, 2004, p.33), which measure the representation of targeted group after the implementation of affirmative action. Secondly and more importantly the affirmative action should be evaluated by its contribution towards the final goal of nurturing the societal integration (Sabbagh, 2004, p.33) Moreover, concerning the problem about lowering academic standards under the implementation of affirmative action in education, it is also essential to examine the quality of Malaysian human capital.

2.3.1. Recent outcomes of affirmative action in education

While there is plenty information and other statistics on the Bumiputera representation related to other outcomes of affirmative action (such as occupational representation, equity ownership) presented consistently through the Malaysia plans, “evidences on Bumiputera advancement in tertiary education are scarce and quite dispersed in governmental documents, given that affirmative action in education has been implemented for a long time even before the NEP”. Nevertheless, there are enough evidences of quantitative progress on the implementation of affirmative action in education.

First of all, the composition of universities by ethnic groups reveals the effectiveness of ethnic quotas before and after the declaration of the NEP. In 1959, the ethnic composition of enrolment records for University of Malaya, the only University in Malaysia then, was 60% Chinese, 20% Malay, 20% Indians and Others. By 1963, the Malay enrolment started to climb steeply overtaking the Chinese enrolment (Sato, 2005). The ethnic quota system hastened the participation of Malay and other Bumiputera students in higher education.

Although the ethnic quota system was set up 55 Bumiputera: 45 non- bumiputera based on the ethnic composition of Malaysian population in 1970s, as mentioned above, the quota system was rarely followed. More Bumiputera students were admitted than the specified quota of 55 percent. In 1980, the Bumiputera enrolment in local tertiary education institutions was 73.3 percent, meanwhile Chinese enrolment only was 22 percent and Indians were 4 percent. In 1985, the proportion of Bumiputera enrolment increased to 74.4 percent, while the shares of the Chinese and the Indians were 21 percent and 4.1 percent respectively. In each types of tertiary education, the share of Bumiputera enrollment also exceeded the quota (Table 3).

Table 4: Enrolment in tertiary education by ethnic groups in local tertiary education institutions 1980 and 1985

Type of tertiary education		1980					1985				
		Bumiputera	Chinese	Indian	Others	Total	Bumiputera	Chinese	Indian	Others	Total
Certificate	<i>No. of students</i>	1,612	850	96	27	2,585	4,525	2,096	223	34	6,878
	<i>Percent</i>	62.4%	32.9%	3.7%	1.0%	100.0%	65.8%	30.5%	3.2%	0.5%	100.0%
Diploma	<i>No. of students</i>	12,494	2,069	184	29	14,776	23,560	1,313	156	17	25,046
	<i>Percent</i>	84.6%	14.0%	1.2%	0.2%	100.0%	94.1%	5.2%	0.6%	0.1%	100.0%
Degree	<i>No. of students</i>	13,857	5,450	1,248	209	20,764	23,841	11,241	2,473	283	37,838
	<i>Percent</i>	66.7%	26.2%	6.0%	1.0%	100.0%	63.0%	29.7%	6.5%	0.7%	100.0%
Total	<i>No. of students</i>	27,963	8,369	1,528	265	38,125	51,926	14,650	2,852	334	69,762
	<i>Percent</i>	73.3%	22.0%	4.0%	0.7%	100.0%	74.4%	21.0%	4.1%	0.5%	100.0%

Source: Malaysia Fifth Plans (1986)

Even under the meritocracy policy, which replaced the ethnic quota system in 2001, enrolment at public universities by ethnic groups have normalized corresponding to the ethnic composition of the population. From 2002 to 2009, the enrolment by ethnic groups has been retained with around 60 percent Bumiputera, around 30 percent Chinese, and about 6 percent Indians. The enrolment in 2009, which was 68.8 percent Bumiputera students, 25.2 percent Chinese student, and 6.1 Indian students, seems to reflect the population distribution by ethnic groups in 2009 with the ethnic composition of population respectively was 66.1 percent Bumiputera, 25.2 percent Chinese, 7.5 percent Indians (Table 4).

Table 5: Enrolment local public universities by ethnic Group, 2002 – 2009

Ethnic groups	Bumiputera		Chinese		Indian		Total
	<i>No. of Students</i>	<i>Percent</i>	<i>No. of Students</i>	<i>Percent</i>	<i>No. of Students</i>	<i>Percent</i>	
Year							<i>No. of Students</i>
2002	22,557	68.9	8,665	26.4	1,530	4.7	32,752
2003	23,182	62.6	11,921	32.2	1,931	5.2	37,034
2004	24,837	63.8	11,778	30.3	2,277	5.9	38,892
2005	24,941	62.4	12,802	32.0	2,233	5.6	39,976
2006	24,957	62.4	12,616	31.5	2,443	6.1	40,016
2007	24,924	62.1	12,745	31.8	2,447	6.1	40,116
2008	24,989	62.2	12,445	31.0	2,750	6.8	40,184
2009	27,829	68.8	10,166	25.2	2,421	6.0	40,416

Source: Department of Statistics (2016)

The affirmative action programs in education also urged the process of increasing the number of Malay students enrolled in the science and technical courses at the university level. For instance, the ratio of the Malay to Chinese graduates for engineering, science, and medicine were 1:100, 1:20, and 1:9 respectively (Lee, 2005). There have been a considerable increase in the share of Malays students in science and engineering since the adaptation of affirmative action in education. In 2000, for the 25 – 29 and 35 – 39 age groups, the percentage of Malays students who hold a certificate diploma or degree in electronics and mechanics were 48.2 percent, 57.1 percent and 59.9 percent respectively (Lee, 2006).

It is also necessary to examine the effect of education reflecting in the composition of the labor force, given that education is regarded as the tool to change the structure of employment in Malaysian society. The affirmative action in education enhance the presentation of the Malays in many highly qualified professionals. There were increases in the number of Malay lawyers, doctors, and engineers (Lee, 2006).

The number of employed persons with diploma and degree within ethnics groups between 1985 and 2014 is showed in table 6. Over the period, the overall trend in the share of Bumiputeras hold the highest grew in the number of employed persons with both diploma and degree qualification. The share of employed Bumiputera in the number of employed persons gained diploma grew from 62.5 percent in 1985 to 67 percent in 2014 even as the proportion of employed Chinese gained diploma declined from 29.7 percent in 1985 to 25.5 percent in 2014. There was a slight increase in the share of employed Indians hold diploma, from 6.0 percent in 1985 to 1.2 percent in 2014. However, for those with degree qualifications, the share of the Bumiputera group increase considerably, from 44.5 percent in 1985 to 60.8 percent in 2014. “In terms of numbers, there were 49,500 in 1985 to 483,500 in 2008 almost a ten-fold increase”. Meanwhile, the data for the proportion of the Chinese group decreased significantly from 45.2 percent in 1985 to 30.3 percent in 2014. The share of the Indian group also declined though with a modest rate, from 9.0 percent in 1985 to 8.6 in 2014. Though the absolute number for all of the ethnic groups increased over the period. It is likely that the pattern of employment in Malaysia has also been in line with population shares.

Table 6: Number of Employed Persons by Highest Certificate and Race, 1985 – 2014

Ethnic groups	Bumiputera		Chinese		Indian		Others		Total	
	No. Employed ('000)	Percent								
<i>Diploma</i>										
1985	93.0	62.5	44.2	29.7	8.9	6.0	2.7	1.8	148.8	100
1990	142.1	66.2	57.5	26.8	12.4	5.8	2.7	1.3	214.7	100
2000	335.9	64.0	157.2	30.0	29.8	5.7	2.0	0.4	524.9	100
2005	524.9	63.3	240.7	29.0	39.2	7.1	4.4	0.5	829.2	100
2010	596.9	66.0	241.4	26.7	62.1	6.9	3.9	0.4	904.3	100
2014	834.3	67.0	317.2	25.5	89.5	7.2	4.5	0.4	1245.6	100
<i>Degree</i>										
1985	49.5	44.5	50.3	45.2	10.0	9.0	1.5	1.4	111.3	100
1990	76.5	48.5	67.3	42.7	12.8	8.1	1.0	0.6	157.6	100
2000	241.1	54.5	162.9	36.8	36.3	8.2	1.9	0.4	442.2	100
2005	200.8	57.1	239.7	34.1	58.3	8.3	3.5	0.5	702.3	100
2010	668.3	61.7	324.5	30.0	84.0	7.8	6.2	0.6	1,083.1	100
2014	896.3	60.8	447.0	30.3	127.0	8.6	3.6	0.2	1,473.9	100

Sources: Department of Statistics (2016)

2.3.2. Ethnic integration

As examined above, although affirmative action scheme in education had clearly raised the representation of Malays in nearly all occupations and higher education, its effectiveness in societal integration is arguable. Over the years, it enhances the salience of ethnic groups (including Bumiputera, Chinese, Indian) rather than facilitate ethnic integration. There are evidences of the entrenchment of ethnicity in education system of Malaysia. Secondly, affirmative action policies, which is based on ethnic tie, “have contributed to the formation of ethnic enclaves in the society” (Lee, 2005, p.215), The establishment of affirmative action policies as instruments to increase Malay and other Bumiputera representation in employment, business, and education has built ethnic enclaves of Bumiputera in the economy and education. Accordingly, in order to the Chinese and Indians have also shaped their ethnic enclaves in order to protect their own interests in a system discriminated against them (Lee, 2005)

First of all, the language policy about using Bahasa Malaysia as a sole medium of instruction in national schools is viewed as strengthening the position of Bumiputera group in education as it is their mother tongue while it seem to be a disadvantage to non-Bumiputera, who are more comfortable with English language instruction and their mother tongue language (Joseph, 2008). . Therefore, the number of non-Malays joined national primary schools is small, only 2.1 percent and 4.2 percent of Chinese and Indians students out of 2.2 million students enrolled in national primary schools in 2002 (Lee, 2005). Instead, most of Chinese pupils attends national-type primary schools using Mandarin as medium of instruction, while most of Indian pupils enrolls in national-type primary schools using Tamil as the medium of instruction; leaning the national primary schools mainly for Bumiputera pupils (Joseph, 2014).

At the tertiary education, the ethnic quota system also contribute for the entrenchment of ethnicity in society. Although the main assertion for ethnic quota system is to warranted an ethnically diverse university population, the distributions of students by universities has still largely revolves around ethnicity. Malays students comprises the majority of the students in Putra University Malaysia (UPM, formerly, Agricultural University of Malaysia), Technology University of Malaysia (UTM), National University of Malaysia (UKM), and Northern University Malaysia (UUM). While non-Malays make up bigger share of the students in University Malaya (UM) and Science University Malaysia (USM) (Lee, 2005).

Moreover, the establishment of special school and school exclusively for Bumiputera (MARA Junior Science colleges, residential secondary schools, and matriculation colleges) shaped an ethnic enclaves with for Bumiputera students only inside the national educational system (Lee, 2005). Those institutions has increased over years. The number of MARA Junior Science colleges increased from 10 schools with 6,311 students in 1984 to 32 schools with a total of enrolment of 20,900 students in 2005 (Lee, 2005; Joseph, 2008). In 1984, the number of residential schools in Peninsular Malaysia only were 27 with only 12,115 students, which around half of the figure in 2000 (which is around 24,000 students) (Lee, 2005). Between 1985 and 2005, there was rapid development in public matriculation colleges enrolment, with an annual growth rate of 12.5 percent more than double the figure of regular public post-secondary schools (which is 6.1 percent). There is also MARA Institution of Technology (MIT), which was upgraded to university status in 1999. In 1975 there was 6,900 students enroll in MIT and by 1996 the enrolment figure was approximately 45,000 (Lee, 2005). The Tunku Abdul Rahman (TAR) College was established by the Malaysian Chinese Association for non-Malay to pursue certificate and diploma education as a political compromise. Nevertheless, TAR college is a much smaller institute and received limited fund for its development and enlargement. Therefore, the figure of growth of TAR college has been has been unremarkable: from 4,036 students in 1975 to about 6,000 in 1980 and to about 9,000 in 1996 (Lee, 2005).

In addition, due to ethnic quota admission policies introduced under the NEP, it was more difficult for non-Bumiputera students to get a place in the local higher education institutions. In the 1970s and 1980s, the shortage of places in local higher education institutions for the Chinese and Indian students impelled developing resentment and hence strained inter-ethnic relations (Lee, 2005). As mentioned above, the development of private higher education institution since the mid-1980s, especially in the 1990s, offer many Chinese and Indian students with more chances to attain higher education. Between 2000 and 2005, the enrolment of undergraduate students in private institutions increased faster than the figured of public institution (13.0 percent in comparison to 4.4 percent) (Malaysia, 2006b) The major share of the enrolments in private higher education institutions were non-Bumiputera students. For example, in 1980, for diploma and certificate courses Malays, Chinese, and Indians accounted for 15.7 percent, 71.2 percent and 12.8 percent respectively, and for university course the figures were 26.8 percent, 59.4 percent, and 13.8 percent respectively (Lee, 2005). Although, recently the representation of Malay students in private higher education institutions also has increased, especially in certificate and diploma courses (Lee, 2005). However, the development still follow the ethnic group foundation because the majority of Malays were enrolled in the Malay-owned colleges, and the non-Malay in the non-Malay owned college (Lee, 2005). In addition, the majority of Malay students enrolled in private colleges received financial assistance from the government (Joseph, 2014; Lee, 2006).

In the period after the adaptation of affirmative action in education, it would seem from the accessible data that the affirmative action policies and programs in education has raised enrolments of Bumiputera students in higher education in Malaysia. It also help to improve the representation of Bumiputera persons with higher education in the labor market. However, regarding to societal integration, the effectiveness of affirmative action is questionable. Instead of supporting the ethnic integration, it has strengthened the ethnic identity among groups.

2.3.3. Education quality and the knowledge-based economy

Last but not least, the impact of the affirmative action in education on the quality of human capital, concerning that the affirmative action in education might weaken the academic standards as well as the quality of human capital , then hinder the national goal to upgrade to a knowledge-based economy.

As mentioned above, the implementation of affirmative action in Malaysia generally enhance the salience of ethnic lines between ethnic groups. Ethnicity become an important and acknowledged determinant of socioeconomic outcomes, hence educational outcomes is not an exception. Ethnicity of the students, besides gender and socioeconomic status, plays an important role in their education pathways (Joseph, 2014).

The higher education in Malaysia can be taken as an example. Ethnic quota system of admissions to higher education institutions under the NEP was set in order to reflect the ethnic composition of the population. Even after ethnic quota system admission to higher education institution was switched by meritocracy, ethnicity of the students still plays an important role. There are two different examinations used in order to assess students for entry into Malaysian public universities, including the matriculation examinations and High School certificate. While the matriculation examinations are for Malay/ Bumiputera students from matriculation or pre-university programs, exclusively for Bumiputera students, most students in the Higher School certificate programmes are non-Malays (Joseph, 2014). The affirmative action supports different standards applied for different ethnic groups within an education system.

The quality of education system reflect on the labor market. In recent years, the increasing unemployment rate of tertiary educated labor force are becoming a major concern in recent years (Lee, 2006), especially among Bumiputera graduates. Between 1995 and 2007, there were an increase in unemployment rate of tertiary educated labor force between 1995 and 2007 for the Bumiputera and Indian populations (Lee, 2006). Within Bumiputera group, unemployment rate was higher among non-Malay Bumiputera graduates (Lee, 2006). Moreover, some of main reasons for not hiring young graduates included lack of Information Technology, shortage of English proficiency, lack of soft skills (especially communication, creativity/innovation, and problem solving skills) (World Bank, 2014). The lack of English proficiency is rather faced by graduates from public university, given that Bahasa Malaysia is the medium of instruction in public universities while English is the one used in private institutions, which is mainly the reason why private higher education graduates are more employable (Gill, 2007). This raise serious questions about the capability of public universities in building a high quality human capital in order to transform to a knowledge-based economy.

Malaysian government realizes the necessity of reform of education in Malaysia in order to achieve its goal to upgrade to knowledge-based economy. It is stated that human capital was at a

critical stage, that the education system is not creating enough talent with the skills demanded by firms (Malaysia, 2010, 2011). In recent years, there have been some modification introduced in the ethnic preferential policy, however the results are not quite encouraging (Lee, 2005). Nevertheless, more strong measures should be taken, concerning that affirmative action has been implemented for such a long time. The affirmative action based on the ethnic preferential policy might also create a culture of dependency. The study of Joseph (2008) of mixed ethnic Malaysian national schools show that in the top achieving classes, Malay students tend to be less competitive compared to Chinese students. The reason stated by the Malay students in their interviews is that “they do not work hard and were not as competitive as the Chinese girls because they were confident they would get the scholarships for further studies due to the affirmative action policy for the Bumiputeras” (Joseph, 2008,p. 193).

VI. Conclusion

Undoubtedly, affirmative action in education has succeeded in raising the participation of the Malays and other Bumiputera in the education and employment. Therefore, it reduces the socioeconomic horizontal inequalities faced by the Bumiputeras, especially the Malays, result from the ethnic division of labor under British colonial era. However, it has enhanced the salience of ethnicity in the society and perceived entrenchment, thus affirmative action in education does not foster the inter-ethnic relations in Malaysia. In addition, the prolonged affirmative action has also built up resentment towards Bumiputeras among the other ethnic groups. Likewise, the implementation of affirmative action even before or after the riot May 1969 mainly has targeted at one group – Bumiputeras for the purpose of resolving socioeconomic inequalities faced by them, while neglecting horizontal inequalities confronted by other groups. There are some suggestions for adoption of affirmative action targeting other ethnic groups in the future in order to resolve inter-ethnic tensions. However, it should be considered carefully concerning the complex side effects of affirmative action.

With regards to the quality of human capital, though there are many factors have influence on it, it is likely that the implementation of affirmative action is one of those factors. Under the implementation of affirmative action in education, education has been chiefly viewed as a political instrument to achieve the objective of restructuring society which is increasing the presentation of Bumiputera group in socioeconomic areas. Given that idea, ethnicity become an foremost determinant of educational outcomes, and ethnic based policies mean foregoing of the rules of meritocracy and equal chances. The quality of human capital can only be improved when concentrated on the growth of people. Furthermore, the transformation of Malaysian economy into a knowledge-based one would necessary to improve the skills and knowledge of the whole Malaysian labor force, not only the Bumiputera community.

VII. References

- Andaya, B. & Andaya, L. (2001). *A History of Malaysia*, New York: Routledge/Falmer
- Brewer, J. (2003). Content Analysis, in Miller, R.L & Brewer, J. (eds.), *The A-Z of Social Research: A Dictionary of Key Social Science Research Concepts*, SAGE Publications, Ltd, pp. 44 – 45 [e-book]. Online access for Lund University available through: <http://methods.sagepub.com.ludwig.lub.lu.se/reference/the-a-z-of-social-research> [Accessed August 2016]

de Vaus, D. A. (2001). *Research Design in Social Research*, London : SAGE

Department of Statistics (2010). *Population and Housing Census of Malaysia*, Putrajaya: Department of Statistics, Malaysia. Available through: e-Services of Department of Statistic Malaysia [Accessed July 2016]

Department of Statistics edatabank (2016).

Economic Planning Unit (2016). *Human resources development*. Available Online <http://www.epu.gov.my/en/pembangunan-sumber-manusia> [Accessed 4 July 2016]

Gill, S.K. (2007). Shift in language policy in Malaysia: unraveling reasons for change, conflict and compromise in mother-tongue education, *AILA Review*, 20(1): 106-22

Jomo, K.S (2004). *The New Economic Policy and Interethnic Relations in Malaysia*, Geneva: United Nations Research Institute for Social Development (UNRISD), *Identities, Conflict and Cohension Programme Paper No. 7*

Joseph, C. (2008). Ethnicities and education in Malaysia: difference, inclusions and exclusions, in G. Wan (ed.), *The Education of Diverse Student Populations: A Global Perspective*, New York, NY: Springer

Joseph, C. (2014). *Education Politics in Postcolonial Malaysia: Ethnicity, Difference and Inequalities*, in Joseph, C. & Matthews, J. (eds.), *Equity, Opportunity and Education in Postcolonial Southeast Asia*, Abingdon, Oxon ; New York : Routledge, pp. 150 - 168

Khoo Boo Teik (2005). *Ethnic Structure, Inequality and Governance in the Public Sector: Malaysian Experiences*, Geneva: United Nations Research Institute for Social Development (UNRISD), *Democracy, Governance and Human Rights Programme Paper No. 20*

Lee Hock Guan (2005). *Affirmative Action in Malaysia*, in Kin Wah Chin and D. Singh (eds.), *Southeast Asian Affairs*, Singapore: IEAS, pp. 211-228

Lee Hock Guan, (2006). *Globalisation and Ethnic Integration in Malaysian Education*, in Saw, Swee-Hock & K. Kesavapany (eds.), *Malaysia: Recent Trends and Challenges*, Singapore: Institute of Southeast Asian Studies, pp. 230 – 259

Lee, K.H. & S. Nagaraj (2012). *The crisis in education*, in H., Hill, Tham Siew Yean & Ragayah Haji Mat Zin (eds.), *Malaysia's development challenges: Graduating from the middle*, 3rd edition, London ; New York : Routledge, pp. 213 – 232

Malaysia (2006a) *Federal Constitution*, Kuala Lumpur: Government Printer

Malaysia (2006b) *Ninth Malaysia Plan, 2006 – 2010*, Kuala Lumpur: Percetakan Nasional Malaysia Berhads

Malaysia (2010). *Tenth Malaysia Plan 2011 – 2015*, Kuala Lumpur: Percetakan Nasional Malaysia Berhad

Malaysia. (1971). *Second Malaysia Plan, 1971-1975*, Kuala Lumpur: Government Printer.

Malaysia. (1976). Third Malaysia Plan, 1976-1980, Kuala Lumpur: Percetakan Nasional Malaysia Berhad

Malaysia. (1981). Fourth Malaysia Plan, 1981-1985, Kuala Lumpur: Percetakan Nasional Malaysia Berhad

Malaysia. (1986). Fifth Malaysia Plan, 1986-1990, Kuala Lumpur: Percetakan Nasional Malaysia Berhad

Malaysia. (1991). The Second Outline Perspective Plan, 1991-2000, Kuala Lumpur: Percetakan Nasional Malaysia Berhad

Malaysia. (2001). The Third Outline Perspective Plan, 2001 - 2010, Kuala Lumpur: Percetakan Nasional Malaysia Berhad

Malaysia. (2011). New Economic Model: Concluding part, Pusat Pentadbiran Kerajaan Pusat, Putrajaya

Meeran, J (2008). The Malaysian Success Story, the Public Sector, and Inter-ethnic Inequality, in Nelson, J.M., Meerman, J., & Abdul Rahman Embong (eds.), Globalization and national autonomy : the experience of Malaysia, Singapore : Institute of Southeast Asian Studies ; London : Eurospan [distributor], pp. 76-115

Ragayah, H.M.Z (2012). Poverty eradication and income distribution, in H., Hill, Tham Siew Yean & Ragayah, H.M.Z (eds.), Malaysia's development challenges: Graduating from the middle, 3rd edition, London ; New York : Routledge, pp. 233 - 254

Sabbagh, D (2004). Affirmative Action Policies: An International Perspective, Geneva: UNDP, Human Development Report Office Occasional Paper 2004/12

Sato, M. (2005). Education, Ethnicity and Economics: Higher Education Reforms in Malaysia, 1957-2003, in Nagoya University of Commerce and Business Journal of Language, Culture and Communication , 7 (1): 73-88.

Saw, Swee-Hock (2007). The population of Malaysia, Singapore : Institute of Southeast Asian Studies

Scott, J. (1990). A Matter of Record, Documentary Sources in Social Research, Cambridge: Polity Press.

Stewart, F. & Langer, A. (2008). Horizontal Inequalities: Explaining Persistence and Change in Stewart, F. (ed.), Horizontal Inequalities and Conflict: Understanding Group Violence in Multiethnic Societies, Basingstoke : Palgrave Macmillan, pp. 54 - 82 [e-book]. Available through: Lund University Library website: <http://www.lund.ebib.com.ludwig.lub.lu.se/patron/FullRecord.aspx?p=416891> [Accessed July 2016]

Stewart, F. (2008). Horizontal Inequalities and Conflict: Introduction and some Hypotheses in Stewart, F. (ed.), Horizontal Inequalities and Conflict: Understanding Group Violence in Multiethnic Societies, Basingstoke : Palgrave Macmillan, pp. 3-24 [e-book]. Available through:

Lund University Library website:
<http://www.lund.ebib.com.ludwig.lub.lu.se/patron/FullRecord.aspx?p=416891> [Accessed July 2016]

Stewart, F.; Brown, G.K. and Langer, A (2008). Policies towards Horizontal Inequalities in
Stewart, F. (ed.), Horizontal Inequalities and Conflict: Understanding Group Violence in
Multiethnic Societies, Basingstoke : Palgrave Macmillan, pp. 301 - 325 [e-book]. Available
through: Lund University Library website:
<http://www.lund.ebib.com.ludwig.lub.lu.se/patron/FullRecord.aspx?p=416891> [Accessed July 2016]

Vartanian, T. P. (2010). Secondary data analysis, New York ; Oxford : Oxford University Press
[e-book]. Online access for Lund University available through:
<http://www.oxfordscholarship.com.ludwig.lub.lu.se/view/10.1093/acprof:oso/9780195388817.001.0001/acprof-9780195388817> [Accessed July 2016]

World Bank (2013). Malaysia Economic Monitor: High-Performing education, The World Bank,
The World Bank, Washington, DC.