

Globalisation, ICTs and National Identity: The Consequences of ICT Policy in Malaysia

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Abstract—For the past thirty years the Malaysian economy has been said to contribute well to the progress of the nations. However, the intensification of global economy activity and the extensive use of Information Communication Technologies (ICTs) in recent years are challenging government's effort to further develop Malaysian society. The competition posed by the low wage economies such as China and Vietnam have made the government realise the importance of engaging in high-skill and high technology industries. It is hoped this will be the basis of attracting more foreign direct investment (FDI) in order to help the country to compete in globalised world. Using Vision 2020 as it targeted vision, the government has decided to engage in the use of ICTs and introduce many policies pertaining to it. Mainly based on the secondary analysis approach, the findings show that policy pertaining to ICTs in Malaysia contributes to economic growth, but the consequences of this have resulted in greater division within society. Although some of the divisions such as gender and ethnicity are narrowing down, the gap in important areas such as regions and class differences is becoming wider. The widespread use of ICTs might contribute to the further establishment of democracy in Malaysia, but the increasing number of foreign entities such as FDI and foreign workers, cultural hybridisation and to some extent cultural domination are contributing to neo-colonialism in Malaysia. This has obvious consequences for the government's effort to create a Malaysian national identity. An important finding of this work is that there are contradictions within ICT policy between the effort to develop the economy and society.

Keywords—Globalisation, ICTs, ICT Policy, Malaysia, National Identity, Vision 2020

I. INTRODUCTION

THE main objective of this paper is to examine the development of Information Communication Technology (ICT) policy, its impacts and consequences on both the economy and society in Malaysia. The fundamental questions are; can policy pertaining to ICTs in Malaysia contribute further to Malaysian economic growth? What are the implications and consequences of this policy for the establishment of both economic and social attainments in the country? Three areas concerning the impact and consequences of ICT policy were investigated. These areas were: 'ICTs and Economic Growth', 'ICTs and Inequality', and 'neo-colonialism'. For neo-colonialism, the investigation will be based upon the broader context of the whole argument. Since the paper focus solely on the ICT policy in Malaysia, the understanding of its impacts and consequences would help us to generate a greater understanding of whether there are contradictions within the policy itself. Many claims have been made about what consequences globalisation might have for society.

The intensification of the global economy induced by the unprecedented growth of large transnational corporations which demand more profit is believed to have changed many ways in which the economy is perceived today. As a result, what we are currently witnessing is the increasing change in occupational structure, the recasting of capital and labour, and an increasing shift towards liberalisation, deregulation and privatisation. What is also believed is that this impact goes beyond current economic trends touches our daily lives through the free flow of ideas and values across national boundaries and which is challenging the present notions of the nation-state and its distinct national economy [1].

Allegedly, as argued by many, the increasing penetration of global forces into every realm of life in every region of the world is being pushed by the recent development in transportation networks and ICTs [2], [3], [4]. The new technologies that have created new industries, such as the computer and information industry, allow a growing ability for large transnational corporations, media and information to instantaneously traverse the globe. This is what Webster referred to as the pressure of capitalism in its newest approach that has changed the course of today's informational trend [5:267].

Not only the change has resulted in greater intensification in the global economy, but equally important are some changes in society, including those which have transformed the work process [6:372]. What can be perceived is that the demand for more flexible and less standardised labour has been greatly enhanced. The reasons are not simply to further compete in the global economy, but also to maximise productivity and profit. This accords well with the current experience of a developing country like Malaysia.

However, all these changes are not without problems. As Kranzberg [7:247] mentioned in his "First Law", all technologies, including ICTs, tend to have unintended consequences that go beyond the original plan. It seems clear that the intensification of the global economy along with the development of ICTs is creating increasing divisions in society. The demarcation between low skill workers and high-skill workers not only separates the high income and low-income groups; more importantly increase the divisions between the information-haves and information have-nots. Not only can this be seen between countries in the global sense but also between groups and regions in the same geographic locales [8:17]. Examples of this growing inequality are increasingly evident in class and ethnicity in many of the advanced capitalist societies.

In many instances, the race for competitive advantage coupled with the dynamism of informational capitalism as mentioned earlier is adding to these factors. It is believed that the race for competitive advantage by many of the

governments today including Malaysia, and their heavy reliance on international private capital, presages another set of dangers. Commodification of culture, cultural imperialism, cultural homogenisation and hybridisation are among the important issues, which continue to dominate our understanding of globalisation and ICTs. Coupled with the digital divide that is increasingly foreseeable, not only will they have implications for democracy and destabilisation of the public sphere, but also those related to the emergence of a new set of fragmentation as well as the questioning of existing shared identities [9:420].

It is around such a framework that this paper is trying to develop an understanding of the meaning of the information society. Referring back to Malaysia, it should be stressed that the recent policy change towards greater engagement with ICTs by the Malaysian government has very much contributed to the way information is being handled and used in the country. The change in occupational structure, the restructuring of the education system, the approach towards increasing deregulation and privatisation, the establishment of the Malaysian Super Corridor (MSC)¹ and the increasing number of Internet users in the country signifies the seriousness of the government in transforming Malaysia's economy and society.

Like the experience of many other countries, this paper has shown that Malaysia too is facing almost the same set of implications as a result of ICT development. The concept of a growing digital divide linked to the uneven ICT infrastructure, the issues of gender and their access to ICTs, ethnicity and the language barriers, growing class division and issues of democracy and cultural imperialism is contributing well to understanding the issues. But the most important outcome of this concept would obviously be the consequences for the policy establishment itself, particularly those related to the creation of Malaysia's own national identity. This is based on the argument made by Kranzberg that the same technology can have a different set of implications when introduced into different contexts and circumstances. Under what circumstances can the united Malaysian nation mentioned in Vision 2020² be well established and continue to be the case. Whether or not the policy itself is contradictory will be examined in later arguments.

II. CONTEXTUAL BACKGROUND

¹ Multimedia Super Corridor (MSC) primarily spurred by the Malaysian Government in 1996 to create an ideal environment for ICT-related production as well as to provide the backbone for an information superhighway was established. Situated in a corridor and with an area of 750 square kilometres, an area that is larger than Singapore Island, the corridor spreads from Kuala Lumpur City Centre in the north to Sepang in the South, where the newest and largest international airport in the region, Kuala Lumpur International Airport (KLIA), is located. Among others, MSC also connected Technology Park Malaysia, the Petronas Twin Towers, and two of the world's first 'smart cities', namely Putrajaya and Cyberjaya.

² Vision 2020, envisioned that Malaysia would become an industrialised and a "fully developed" country by the year 2020. It was during the 6th Malaysian Plan, the Vision 2020 was announced by the government to provide the long-term objectives. Since then, Vision 2020 has been the government's benchmarking process for any future development planning in the country.

The Malaysian social system is complex. The multi-ethnic characteristics³ of Malaysian society and its distinguishing features of culture, religion and even politics make it particularly difficult to understand the process. Historically, the elements of inequality in Malaysia have been long-standing issues and continue to challenge the notion of establishing a united society. The bloody racial riot in 1969 due to the economic imbalance between the major ethnic groups spurred the government to take more drastic action. The establishment of policies such as the National Economic Policy (NEP)⁴ to correct these imbalances was among the earliest steps taken by the government to unite its people. The economic achievements over the past 20 years and the government's ability to reduce income gaps and poverty level have contributed to the prosperity of the nation. In many instances the move from agriculture to more labour-intensive economic activity such as manufacturing and the heavy reliance on international private capital are among the important avenues, which have led to success.

However, the intensification of the global economy, the extensive use of ICTs and competition posed by the lower-wage economies such as China and Vietnam are challenging the government's efforts to further develop the economy. The worries are that the inability to sustain its economic growth and maintain equality within society might result in the disunity so often experienced in the past. It was through measures such as the establishment of the National Development Policy (NDP)⁵ and Vision 2020 that the government continued to stress both economic progress and the maintaining of social unity and more importantly the establishment of a unique Malaysian identity.

Realising the challenges and threats, the government started to put emphasis on the importance of ICTs. Many related policies pertaining to ICTs' capacity to move the economy

³ Malaysian society is considered to be multi-ethnic, multi-lingual, multi-religious and multi-cultural. The population comprises three major ethnic groups namely the Malay, Chinese and Indian. Of the total Malaysian citizens, Malays make up 65.1 per cent, while 26 per cent are Chinese and 7.7 per cent Indians. Not only does each community strongly guard its cultural identity and ethnic dimensions, even most political parties are ethnically based.

⁴ In 1970, the NEP was launched under the OPPI (1971-1990). The NEP sought to eradicate poverty and to restructure society. The basic philosophy was "growth and equity" with national unity as the overriding objective. It was targeted that the level of poverty in Peninsular Malaysia should be reduced from 49.3 per cent to 16.7 per cent by 1990. Meanwhile the ownership of share capital in the corporate sector should be restructured such that proportion held by the *bumiputera* would increase from 2.4 per cent to at least 30 per cent, while that of other Malaysians would increase from 32.3 per cent to 40 per cent. For the foreigners, the policy was to reduce their holdings from 63.3 per cent to 30 per cent. In addition, it was also targeted that the employment pattern at all levels should reflect the racial composition of the population.

⁵ With the aim of replacing the NEP, the NDP, which was implemented over a decade from 1991 to 2000, was the bringing about of a more balanced development. The basic policies of the NDP have been maintained since experiences of the last twenty years have shown that growth, combined with effective government policies about poverty and restructuring, contributed significantly towards the substantial improvement in income distribution and the reduction of ethnic imbalances in the country. Unlike the NEP, the New Development Policy very much focuses on the economy and income distribution rather than on deadlines for ethnic restructuring and wealth distribution.

towards more high-skill industries were established and implemented. The extensive use of ICTs in many of its economic sectors both public and private, the concomitant change in the occupational structure based on skills and knowledge entities are among the results of the government's determination to further stimulate the economy. It is hoped that this will help the country to further compete in the global arena, whilst realising the vision to become a developed country by 2020.

The analysis in this paper has shown that the greater engagement with ICT in the economy is contributing to an increase in inequality in the country. Looking at the experience of many developed countries, this is something to be expected. The most important question, which needs to be answered is how far can this be attributed to the contradictions within the government's own ICT policy. The inability to curb these contradictions would further jeopardise the government's efforts to unite the society, in order to become a developed country by 2020. As far as this paper is concerned, the findings have shown that there are clear contradictions between the policies to further develop the economy and those related to social cohesion. These are results from the consequences of ICT policy as presented in the detailed analysis below.

III. ICTs AND ECONOMIC GROWTH

It is observed that for the past thirty years Malaysia has enjoyed its economic attainments. Starting with the effort to correct economic imbalances among major ethnic groups, Malaysia has witnessed a series of economic transformations from import substitution to economic liberalisation. The opening up of the Malaysian economy in the middle 1970s has spurred the growth of Foreign Direct Investment (FDI) and the establishment of the Malaysian manufacturing sector. The high dependence on labour-intensive industry through this process has helped the country enjoy its economic progress. The poverty level and those related to ethnic gaps have been reduced tremendously. Not only has Malaysia been one of the highest FDI recipients, but also the country's ability to maintain its GDP growth rate at 8 per cent per annum as being recorded among the highest in the world, particularly in the early 1990s.

However, the character of globalisation and the uncertainty in the global market has somewhat mitigated the country's position as a low-cost production centre that it had enjoyed over the past 20 years. The development of ICTs and the ability of international private capital to transcend economic boundaries in search of more profit like that offered in the low-wage economies such as in China and Vietnam are challenging the government's effort to further develop the economy. Even the evidence from the analysis on the reducing amount of FDI in the country lately (Figure 1) coupled with the financial crisis in the late 1990s made the government realise the importance of searching for new sources of growth [10].

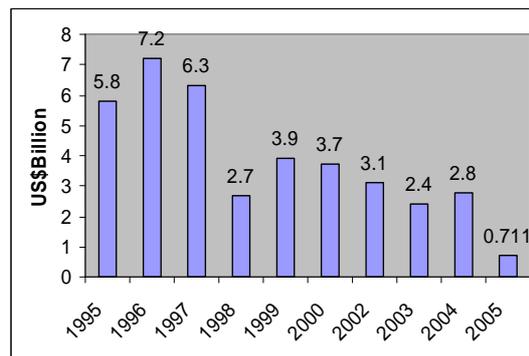


Fig. 1 Foreign Direct Investment in Malaysia (US\$bn)

Source: Based on data available from:
<http://www.unctad.org/section/press/docs/asean-spotlight.pdf>

With the need to continue to position itself in the global economy, the government started to see the importance of ICTs as a means to sustain its economic growth. The government realised that, in order to remain competitive it could no longer rely on labour-intensive and low-wage economic activity. While maintaining the strength and importance of the manufacturing sector, a diversification towards high-skill industries and high technology manufacturing was seen as a mean to boost economic competitiveness.

Many related policies pertaining to ICTs have been introduced ever since. Using Vision 2020 as its framework, the emphasis on harnessing the potential of creativity through an educated and skilled workforce, the approach in increasing deregulation in the telecommunication and ICT industries, the investment in a proper infrastructure have all been taken by the government since the middle of the 1990s. The use of ICTs continued to be encouraged in both the public and private sector and in the education system as well as the provision of various incentives to nurture the growth of a skilled knowledge workforce. In many instances, the establishment of Multi MSC in 1996 was seen as the earliest vehicle to transform Malaysia's future social and economic landscape. It was hoped, not only that it would have a rollover effect for all Malaysian society in its deployment of ICTs, but also that it would be able to attract more FDI into the country whilst becoming one of its main income generator. It was reported that the rapid ICT utilisation and the expansion of ICT investment during the period 2001-2005 had steadily increased to 4.7 per cent per annum [11:142].

Despite the various approaches to stimulate the growth of the ICT industry in Malaysia, there is also evidence of strong government bias towards private capital and high dependence on international private investment to regenerate the economy. For example in the case of the MSC, more incentives such as tax exemption, unrestricted employment of foreign knowledge workers, the right to borrow funds globally and freedom of ownership were provided by the government to encourage private investment. This could be seen through the growing number of world-class companies and foreign knowledge workers that will dominate the MSC areas in years to come [12].

Since the government decision to embark on the knowledge-based economy, a considerable number of efforts and policy shifts have been made by the government, notable in its education and training activities, to intensify the growth of the country's knowledge workers. However, based on many reports there still currently exists a shortage of knowledge workers in Malaysia. Being an economy that wishes to embark on high-skill manufacturing industry, the shortfall of such workers is becoming a major concern, especially in the short-to-medium term. For an economy to be driven by the creation, exchange, and diffusion of innovative ideas, technically competent and talented workers are often a pre-condition. In the case of Malaysia, even though there are ongoing efforts being made to overcome the shortfall, the excess of demand over the supply of such workers is alarming. It is estimated that the demand for ICT workers in Malaysia by the year 2005 will be not less than 100,000 and eventually about 300,000 by the year 2010 (Table 1).

TABLE 1 MALAYSIA DEMAND FOR ICT WORKERS (PERSONS)
 2005-2010

| Occupation | 2005 | % | 2010 | % |
|-----------------------------|----------------|------------|----------------|------------|
| System/Hardware Engineer | 15,930 | 14.8 | 37,860 | 12.3 |
| Software Developer/Engineer | 10,410 | 9.6 | 26,680 | 8.7 |
| Business/System Analyst | 25,620 | 23.7 | 71,020 | 23.2 |
| Computer Programmer | 21,320 | 19.7 | 62,820 | 20.5 |
| Technical Support | 34,720 | 32.2 | 108,230 | 35.3 |
| Total | 108,000 | 100 | 306,610 | 100 |

Source: [14:157]

Although there are no hard statistics for the current numbers of ICT workers or for their immediate supply in Malaysia, but looking at the availability of ICT workers in the MSC alone it is difficult to see how the demand can be met. Being the most critical area with a high need for such workers, MSC only managed to produce 17,000 workers as reported in 2003. From this total number, about 86 per cent or 14,620 were knowledge workers while the remaining were clerical and support staff [13]. Ostensibly, the 3,000 foreign knowledge workers that already resided in the MSC were part of the total number.

Moreover, despite the global shortage of knowledge workers, particularly in the Asia region, the issues the 'brain drain', the small number of tertiary enrolments, the large number of arts students compared to science students, the lack of a critical mass of scientists and engineer, and the lack of emphasis on both its R&D activities and expenditure, which are critical to drive such an economy are factors that will heighten the situation [14]. As an economy highly dependent on international private capital such as the FDI, the limited ability to create its own knowledge workers will be the

greatest challenge for Malaysia's aim to compete in the global economy and also slow the process of becoming a developed country by the year 2020.

With the preferences and increasing freedom to international private investment coupled with the inability to further mobilise the local ICT industry, the technological control would obviously continue to lie in the hand of international private agency. More importantly this would further contribute to the strengthening of the elements of neo-colonialism in the context of the Malaysian economy. It is worrying that this would further perpetuate the growth of private entities and the decline of the public sphere hence creating greater division in society.

In general, ICT development in Malaysia has played an important role in diverting the country's economic focus from one relying heavily on labour-intensive activity to one that generates a high-skills industry and high-technology manufacturing. Through the establishment of ICT policy, there was evidence of institutional changes such as the increases in liberalisation, deregulation and restructuring in its education system. There is also growing evidence of success in the government's approach to harnessing the growth in use of ICTs within society particularly in generating skills and knowledgeable workforce. The reason is simply to further compete in the global economy. As evident in many advanced capitalist societies, the move towards high-skill industries through the means of ICTs is creating greater inequality within society. Findings from this study have shown that the consequences of the country's economic growth as a result of greater engagement with ICTs is also generating a growing inequality in society as discussed later. Most importantly, how will the consequences of this ICT policy further contribute to resolving the contradictions in the government's long-term policy to develop the economy while at the same maintaining its social relationships?.

IV. ICTS AND INEQUALITY

The evidence from the above analysis on policy pertaining to the use of ICTs to bring about change in the country's economic growth, is that the policy is contributing to the growing inequality in Malaysia. As with the experience of many developed countries this result is expected. Interestingly, being a country that only recently embarked upon ICTs, the results are showing a mixture between the tendency for some inequalities to be reduced and others to become wider. The complexity of the Malaysian economy such as the government's preferential policy towards the Malay/bumiputera⁶ in order to close the ethnic income gap and the relevance of government as an active economic actor in the building up of both social and legal institutions contributed well to the notions. However, the findings showed that the more the country is moving towards greater engagement with ICTs in the economy the more evidence there was of growing

⁶ Bumiputera literally means the "son of the soil" related strongly with the Malays to differentiate them from the other non-indigenous communities such as the Chinese and Indians. The Malays are the main Bumiputera in Peninsular Malaysia, meanwhile in Sabah, the Bumiputera are Kadazan, Bajau and Murut. In Sarawak they are Malay, Bidayuh, Iban and Melanau.

inequality within Malaysian society. The clear example of this can be seen through the recent growing class divisions, particularly among the Malays and those related to access to ICTs. The most obvious signs of reducing the gap are those in the cases of gender and ethnicity.

As for gender, there is a clear gap between male and females in their use of ICTs at the moment. In many instances this clear disparity could be attributed to the recent changes in the government's economic focus. The move towards embracing high skills and a knowledgeable workforce and the uneven labour force participation between men and women that is currently visible also contribute to the gender gap in the use of ICTs [15:151].

It has shown that although women are making significant progress in reaching high-level managerial and professional occupations, there remains clear evidence of a large number of women continuing to hold low-level position such as production and related workers. Coupled with the large number of women who are still outside the labour force, the current disparity is to be expected. However, the growing number of females in the occupational sector, the growing number of female students attending ICT-related courses and in tertiary level education, suggest that this gap is likely to close over time [16:57], [17:157-159]. The only setback is the matter related to how fast the gap could be closed. Unlike in the case of US for instance where the closing gender gap was very highly correlated with the proportion of each gender participating in the labour force, as the ability to use ICTs also has to do with the level of income gained. In Malaysia, where the level of labour participation by the genders is unequally proportionate it is doubtful that the gap can be closed in a short period of time compared to a country like the US where this took five to six years. Most importantly, the consequences of this are that it would further contribute to the growing inequality that exists in Malaysia.

As in the case of ethnicity, the narrowing gap among the major groups in Malaysia was very much related to government affirmative action to correct economic imbalances since the NEP period. The government's ability to reduce the poverty level as a result of the prominent move from agriculture to manufacturing-based industry that largely contributed to the increased incomes, coupled with many related preferential economic policies directed particularly towards the Malays are the reasons which explain much of the narrowing of the gap.

The consequences of diverting economic focus by the government through ICTs are not without problems. Like the experienced of advanced capitalist societies such as in the US and the evidence from the analysis above the particular issue on language such as the low level of English usage and lower levels of access to ICTs could be the start to a growing ethnic inequality in Malaysia. Mostly taking place in the less developed regions and the Malay dominated areas this growing inequality could further marginalize the Malays from the advantage of access to ICTs. Consequent to this, reducing the overall ethnic inequality is deemed to be crucial and the implications of it increasing would obviously be unhelpful to the government's efforts to further unite the society.

In the case of access to ICTs, the results have shown that there is an obvious, uneven distribution of ICT infrastructure between regions in the country. From the findings, it was clear that this resulted from the consequences of ICT policy for the economy. The evidence has shown that the concentrations of ICT infrastructure seems to be high in the well-developed areas mostly on the west coast of peninsular Malaysia such as Kuala Lumpur, Johor and Pulau Pinang. While those on the east coast and Borneo regions had an obvious disparity [18]. The lack of telecommunication services, the level of electricity that still has not reached hundred percent, the low usage of telephone and the Internet, and even the smaller number of smart schools in most of these regions further supports the evidence. This suggests that, not only is ICT a possible cause of the greater divisions between regions but also growing inequality in the country. It is clear that the inability to narrow down the disparity in this particular area would further jeopardise the means of achieving the government's aim of solidarity within society [14].

No doubt ICT development in Malaysia is making significant progress, but looking at the uneven distribution of telecommunication services in many parts of the country suggests that there still exists a big gap, particularly in the East Coast area of Peninsular Malaysia which include Pahang, Terengganu and Kelantan, and in the East Malaysia states of Sabah and Sarawak. As argued by Harris et.al, [18], 50 per cent coverage of the services tend to concentrate more in developed states such as those in the Klang Valley area where the capital city of Malaysia, Kuala Lumpur is situated. As for Sabah and Sarawak in East Malaysia, both accounted for only 7 percent coverage. Meanwhile in East Coast area of Peninsular of Malaysia the coverage was even worse with only 5 per cent of the overall coverage.

If we refer to Table 2 on population by state, it is clear that there is an uneven distribution of those services compared to the population of Malaysia, particularly in the east coast area and Sabah and Sarawak. Comparing for instance the states of Kelantan and Pulau Pinang, although both of these states have an almost equivalent population of 1.5 million people, the telecommunication services in Pulau Pinang accounted for about 14 per cent of the coverage compared to only 5 per cent in Kelantan. Even if we were to combine both the states of Selangor and Wilayah Persekutuan together and to compare it to Sabah and Sarawak, the situation is even worse. With a population of more or less 3 million in each of these regions, the services coverage in Sabah and Sarawak only accounted for about 14 per cent compared to 50 per cent in Selangor and Wilayah Persekutuan. The clear disparity of those services in the above states also implies that it will obviously create its own set of implications in terms of Internet access between regions in Malaysia.

TABLE II POPULATION BY STATE, 2005

| State | Residence (Million) 2005 |
|-----------------|-----------------------------|
| Johor | 3.17 |
| Melaka | 0.72 |
| Negeri Sembilan | 0.96 |
| Perak | 2.28 |
| Pulau Pinang | 1.50 |
| Selangor | 4.87 |
| Kuala Lumpur | 1.62 |
| Kedah | 1.85 |
| Kelantan | 1.51 |
| Pahang | 1.45 |
| Perlis | 0.23 |
| Sabah | 3.13 |
| Sarawak | 2.34 |
| Terengganu | 1.02 |
| Malaysia | 23,266.00 |

Source: [11]

Many factors contributed to the situation. In terms of geographical dimension, Castells and Halls [19] have listed three elements might contribute to the disparity of Internet, access and distribution. They are; technical geography, spatial distribution of its user and the economic geography of Internet production. What they meant by technical geography is that the availability of the telecommunication infrastructure itself that makes it possible for the Internet to be connected. As for the spatial distribution of its users, the concern is more towards the uneven territorial distribution of the Internet between countries, regions and even within countries – urban and rural – in the context of Internet user. The economic geography of Internet production refers to where the centre of Internet-related technological innovation, such as in the Silicon Valley, is located. Obviously this area will gain a multiplying effect in terms of population density or other forms of infrastructure such as telecommunications and air transportation [20:208-212].

As in the case of the existing gaps in Internet access in Malaysia, the three elements mentioned by both Castells and Hall seem to be interrelated with one another. Based on the above evidence, technically the telecommunication services between states in Malaysia are unevenly distributed. Among many other factors, the most critical element in the context of technical geography is the coverage of the electricity supply. As the engine that drives ICT, the electricity coverage in Malaysia, especially in the rural areas, is still not hundred per cent. Although by 2005, the rural electrification in Peninsular Malaysia almost fully completed, the coverage in Sabah and Sarawak are at the 72.8 and 80.8 per cent levels respectively

(Table 3). Although the coverage will be increased gradually by the year 2010 and the year after, obviously 27 per cent of the rural people in Sabah and 19 per cent from Sarawak at present are further marginalized from the mainstream of ICT development in Malaysia.

TABLE III RURAL ELECTRIFICATION COVERAGE BY REGION, 2000-2010 (%)

| Region | 2000 | 2005 | 2010 |
|---------------------|-------------|-------------|-------------|
| Peninsular Malaysia | 97.5 | 98.6 | 98.8 |
| Sabah | 67.1 | 72.8 | 80.6 |
| Sarawak | 66.9 | 80.8 | 89.6 |
| Malaysia | 89.5 | 92.9 | 95.1 |

Source: [11:422]

The above uneven distribution between states in Malaysia in terms of technical perspective was made even more alarming by the uneven territorial distribution of its user. In the case of Malaysia, most of the states on the east coast and northern areas including those in Sabah and Sarawak, lack the basic needs for accessing the ICT facilities, so it is not surprising that the percentage of Internet subscribers in these states is far too low compared to those in Johor, Selangor, Kuala Lumpur and Pulau Pinang. Referring to the Table 4 below, although the percentages are showing an increase for all states over the period 2006 to 2008, again the states in the east coast, the northern part of peninsular Malaysia and those in Sabah and Sarawak remain still far behind the other well-developed states, which continue to be dominant. For example while the percentage of Internet subscribers in Kuala Lumpur, Johor and Selangor exceeded 10 per cent, the states of Perlis, Kelantan, and Sabah only accounted for about 0.6 per cent, 2.6 per cent and 5.0 per cent respectively. This indicates that the gap between information rich and information poor states in Malaysia is widening.

TABLE IV INTERNET SUBSCRIBERS BY STATE, 2006-2008 (%)

| State | % | |
|-----------------|------|------|
| | 2006 | 2008 |
| Johor | 12.1 | 11.6 |
| Kedah | 4.4 | 4.4 |
| Kelantan | 2.4 | 2.6 |
| Melaka | 3.1 | 4.1 |
| Negeri Sembilan | 3.2 | 3.8 |
| Pahang | 3.6 | 3.6 |
| Perak | 8.2 | 8.1 |

| | | |
|--------------|------------|------------|
| Perlis | 0.6 | 0.6 |
| Pulau Pinang | 9.3 | 8.4 |
| Sabah | 4.8 | 5.0 |
| Sarawak | 6.1 | 6.3 |
| Selangor | 27.2 | 26.1 |
| Terengganu | 2.4 | 2.5 |
| Kuala Lumpur | 12.6 | 13.0 |
| Total | 100 | 100 |

Source: [21]

It is clear that many of the ICT facilities and services available are concentrated in most of the major cities and most developed areas like Selangor, Kuala Lumpur, Pulau Pinang and Johor and all of these states are located on the west coast of Peninsular of Malaysia. Meanwhile those states on the east coast, the northern part of the peninsular and in Sabah and Sarawak continue to be left behind. From the Table 5 below, no doubt the less developed states are developing and their level of income for the period 1995, 1999 to 2004 is increasing, but the clear disparity of income between states in Malaysia particularly with more developed states, is reflecting the potential gaps in their ability to access ICTs.

TABLE V MEAN MONTHLY HOUSEHOLD INCOME AND INCIDENCE OF POVERTY BY STATE, 1995, 1999, 2004

| State | Mean Monthly Household Income (RM) | | | Incidence of Poverty | | |
|------------------------------|------------------------------------|--------------|--------------|----------------------|-------------|-------------|
| | 1995 | 1999 | 2004 | 1995 | 1999 | 2004 |
| More Developed States | 2,227 | 2,846 | 3,525 | 4.2 | 3.9 | 1.8 |
| Johor | 2,138 | 2,646 | 3,076 | 3.1 | 2.5 | 2.0 |
| Melaka | 1,843 | 2,260 | 2,792 | 5.3 | 5.7 | 1.8 |
| Negeri Sembilan | 1,767 | 2,335 | 2,886 | 4.9 | 2.5 | 1.4 |
| Perak | 1,436 | 1,743 | 2,207 | 9.1 | 9.5 | 4.9 |
| Pulau Pinang | 2,225 | 3,128 | 3,531 | 4 | 2.7 | 0.3 |
| Selangor | 3,162 | 3,702 | 5,175 | 2.2 | 2 | 1.0 |
| Kuala Lumpur | 3,371 | 4,105 | 5,011 | 0.5 | 2.3 | 1.5 |
| Less Developed States | 1,376 | 1,660 | 2,229 | 15.6 | 13.2 | 10.5 |
| Kedah | 1,295 | 1,612 | 2,126 | 12.2 | 13.5 | 7.0 |
| Kelantan | 1,091 | 1,314 | 1,829 | 22.9 | 18.7 | 10.6 |
| Pahang | 1,436 | 1,482 | 2,410 | 6.8 | 5.5 | 4.0 |
| Perlis | 1,158 | 1,431 | 2,045 | 11.8 | 13.3 | 6.3 |
| Sabah | 1,647 | 1,905 | 2,487 | 22.4 | 20.1 | 23.0 |
| Sarawak | 1,886 | 1,276 | 2,725 | 10 | 6.7 | 7.5 |
| Terengganu | 1,117 | 1,599 | 1,984 | 23.4 | 14.9 | 15.4 |
| Malaysia | 2,020 | 2,472 | 3,249 | 8.7 | 7.5 | 5.7 |

Source: [14:378]

Even though it is not the intention to discuss the income gaps in this section, the facts provided are aimed at supporting the evidence that there is a growing inequality between states in terms of their ability to own ICTs. This is to strengthen the point that, not only are these states lacking many ICT facilities but they also lack the ability to own ICTs due to income gaps. This will further prevent them from taking advantage of ICTs.

This is based on the assumption that, the less disposable income the less their ability to take the advantage of ICTs. As in the case of income gaps in Malaysia, those states with higher mean monthly household incomes like Selangor and Kuala Lumpur will have far better opportunities than those with mean monthly household incomes of only RM 1,829 as in the case of Kelantan in the year 2004 for instant. Looking at the disparity of incomes coupled with other shortcomings mentioned earlier, it is clear that inequality in terms of information rich and poor between states in Malaysia is widening. As such, those in the more developed states like Johor, Selangor, Pulau Pinang and Kuala Lumpur will have far more advantage than those in states such as Kelantan, Terengganu, Pahang or Sabah and Sarawak.

Meanwhile in the case of class, the result has shown that the gap has started to widen. Obviously this would be another set of areas that could contribute to the growth of inequality in Malaysia. Unlike those in the advanced capitalist societies where the class division based on income is increasingly visible, where Malaysia is concerned, this is only a recent phenomenon. This was due to the lag in the use of ICTs in the country. Although there is no official data on the use of ICTs based on income level, the increasing income gap between high income and low-income groups in Malaysia suggests that it would obviously impact upon the level of use of ICTs in the country and eventually contribute to the increasing class divisions. The move towards service industries, based on ICTs and the concomitant change in the occupational structure towards skills and knowledge-based activities are the reasons for such divisions. Unlike the Chinese and Indians, it is the Malays who are experiencing the increasing class division based on income level [22], [15:89]. The reason is simply that there are still a large portion of Malays in the less developed areas such as in the east coast of peninsular Malaysia that continue to be marginalized in terms of access and ICT infrastructure.

In Malaysia, the outcome of the reduction in the incidence of poverty and eventually in the income gained is highly correlated with the changing occupational structure. In 1970, about 50 per cent of the total workforce in Malaysia was primarily engaged either in agriculture, fishing or forestry, while the labour force who participated in the manufacturing industry was only about 11.4 per cent [23]. The rising employment rates and the growing inter-ethnic income disparity during the early implementation of the NEP, made the government realise the importance of shifting its policy from Laissez-Faire to the promotion of industrialisation and liberalisation especially those related to manufacturing sector.

The government's decision to drive the economy towards higher productivity through information technology and high value-added economic is actively, particularly at the end of the 1990s has resulted in the changing structure of the social stratification of the country. Referring to the above discussion, it is clear that the occupational composition of its labour force has undergone a structural transformation. More and more highly skilled workers are needed in an effort to drive the economy towards high value-added activities, leaving the traditional employment sectors such as agriculture behind. If it is true for the US and some of the European countries with regards to the growing inequality as a result of

the shifts of their economic priorities towards informational-based economic activity as mentioned by Castells, this can be the case for Malaysia, especially after the development of ICTs, which took place in the middle 1990s.

What can be observed is that, after the extensive effort by the government started to divert the Malaysian economy in the middle 1990s, the country has experienced rising poverty and growing income inequality. In reference to the incidence of poverty, although Malaysia has made a remarkable achievement since independence in reducing the level of poverty from half of its population to 6.8 per cent by 1997, surprisingly the percentage went up to 8.7 per cent in 1995 before experiencing a slight decline in 1999 and 2004 [24], [14], [11]. This can be linked with the growing income inequality. As in the case of income groups, although the mean household income has grown substantially over the period 1990 to 1999, the overall income gap between those in the upper and lower levels in Malaysia is showing clear signs of widening (Table 6).

TABLE VI MEAN MONTHLY GROSS HOUSEHOLD INCOME AND INCOME SHARE BY INCOME GROUP, 1990 AND 1999

| Mean Income (RM) | 1990 | 1999 |
|-------------------------|--------------|--------------|
| Malaysia | 1,169 | 2,472 |
| Top 20% | 2,925 | 6,268 |
| Middle 40% | 1,037 | 2,204 |
| Bottom 40% | 424 | 865 |
| Income Share (%) | | |
| Top 20% | 50.0 | 50.5 |
| Middle 40% | 35.5 | 35.5 |
| Bottom 40% | 14.5 | 14.0 |

Source: [14]

It is important to note that only those in the upper level are enjoying an increase in their income share while those in the lower income groups are experiencing a decline in their share. Even income inequality measured by the Gini Coefficient also experienced an increase since the middle 1990s even though the trend is showing some decline before 1990s (Table7). Although the inequality based on both the incidence of poverty and income share in Malaysia is considered marginal, it nevertheless marks the beginning of a growing inequality within the Malaysian society as a whole, especially among the Malay income class that recorded the highest growing income inequality compared to other ethnic groups. Even though this can be attributed to the currency crisis faced by the country in the late 1990s, this is also a

TABLE VII GINI COEFFICIENT BY ETHNIC GROUPS IN MALAYSIA, 1957-2004

| | Malay | Chinese | Indian | Malaysia |
|---------|-------|---------|--------|----------|
| 1957/58 | 0.342 | 0.374 | 0.347 | 0.354 |
| 1967/68 | 0.401 | 0.391 | 0.403 | 0.398 |
| 1970 | 0.466 | 0.455 | 0.463 | 0.461 |
| 1976 | 0.494 | 0.505 | 0.458 | 0.485 |
| 1979 | 0.488 | 0.471 | 0.461 | 0.473 |
| 1984 | 0.469 | 0.452 | 0.417 | 0.446 |
| 1987 | 0.447 | 0.428 | 0.402 | 0.425 |
| 1990 | 0.428 | 0.423 | 0.394 | 0.415 |
| 1995 | n.a | n.a | n.a | n.a |
| 1997 | 0.449 | 0.418 | 0.409 | 0.425 |
| 1999 | 0.433 | 0.434 | 0.413 | 0.452 |
| 2004 | 0.452 | 0.446 | 0.425 | 0.462 |

Source: [22], [15:89]

a result of shifting the country's economic priority towards high value-added economic activity such as the greater capital intensity and expansion in the use of ICTs in most of its economic sectors during the period. Undoubtedly, if this trend continues, as experience in many developed countries this also suggest that the division between different class levels within Malaysian society will grow bigger.

V. GLOBAL MEDIA AND MALAYSIA

As far as the ICTs and its policy are concerned, the democratisation process promoted heavily by the government along with the diversification of the economy has shown some significant progress. Unlike before the development of ICTs when media control and media censorship by the government was highly visible, as the economy started to move on the use of ICTs, the country has witnessed continuous evidence of the promoting of democracy in Malaysia. The government promises not to censor the content of the Internet, the increasing level of government information via electronic government for the reasons of enabling more dissemination of information, and the increasing number of websites from both the left and right, including the political parties, are the important elements contributing to this factor. It hoped this would be the basis of generating a more informed and knowledgeable society, hence developing the economy.

The need to further develop the economy and its liberalising process has indeed changed the way the media is being portrayed in Malaysia. It is obvious that the deregulation of broadcasting media in the late 1980s has had socio-cultural implications for the country. The government control of the broadcasting media such as TV and radio since independence was considerable. However, the hunger for more choice of TV programmes and the uncontrollable importation of uncensored video movies has forced the government to liberalise the industry. As a result, the first private television station, known as TV3, was launched in 1985 followed by Metrovision, NTV7 followed by first cable TV in later years. Due to the elements of competition, the government has slightly loosened their control by permitting more foreign programmes to be aired on private television but they must

still abide by all the rules and regulations laid down by the government with regards to censorship [25].

But the introduction of new Telecommunication Act in 1994 has changed many rules concerning censorship elements in Malaysia. The launching of Malaysia's first satellite into space in 1995 has marked the beginning of the use of satellite dishes, which were earlier highly prohibited. Suddenly, the public has more choices. Although the concern about the issue of cultural imperialism was not as bad for the terrestrial media, the worries were greater for satellite TV. Previously viewers had only a few selected channels to watch but now they have more than 50 TV channels ranging from top international programmes such as CNN International, CNBC, ABN, Discovery, ESPN, Cartoon Network, HBO and Star Movies to local Channels catering for Chinese and Indians viewers. The ability to transmit directly to its users through the concept of "Direct-To-User" or DTU, the introduction of satellite TV in Malaysia has become highly debated issue among politicians and academics. Among the most discussed issues was the apparently unstoppable manifestation of foreign culture such as those from the West that might have a negative impact on moral values, especially for the younger generation in Malaysia [26].

The elements of Western influence in local cultural identity has been a long-standing issue in Malaysia. Some groups such as Dewan Bahasa dan Pustaka (DBP), the Consumer Association and those engaged in cultural activities have voiced their concern on the issue. What they feel is that ethnic identities in Malaysia have been homogenized by Western influence and are being threatened by it [27]. Also Islamic organisations such as the Selangor Islamic Religious Affairs Organisation continuously criticise the media promoting the Western lifestyles in their imported Western programmes [28]. Although Malaysia has a strong cultural establishment, the presence of Western influence and images ranging from language and music to goods and services in the Malaysia media is undeniable. For example in dress, even though the Malaysian national clothing is strongly associated with every ethnic group, Western dress is widely accepted and preference for it is increasing. The influence of Western music, such as Rock is coming to dominate the music scene in the country. But most criticisms of Western influence on music were mainly about the performers' dress, their performance on stage, the lyrics and their videos are seen as not promoting a healthy and positive values. Meanwhile the expansion of Western fast food, particularly from America such as McDonalds, Pizza Hut, Coca Cola, is spreading in all cities and towns and even in the rural areas [29:88-90].

No doubt Western influence is increasingly capturing many spheres of Malaysian life, but it is difficult to admit that a linear or direct cultural imposition from the Western world is dominating. Indeed the advance of globalisation has also brought along the notion of cultural mixing and hybridisation (see for instance García Canclini, [30]). In Malaysia, while there has been an increase in the momentum of establishing Western media products such as satellite TV channels, there is also high movement and penetration of other media products from Hong Kong, Taiwan and India. The mixing and adaptation of cultural elements from these countries in locally made programmes is noticeable. For example in the Malay

*silat*⁷ movie, there has been an increasing use of "kung-fu" style, which was originally promoted through Hong Kong and Taiwanese made films. While Indian songs through its movies have a very strong influence on the melody of many Malay songs. These are a few examples of how cultural mixing is emerging as a result of globalisation and its consequences to national identity. As mentioned by Michael Richards [31:29] that besides 'stability, firmness and predictability of national, it is itself being challenged, partly by the demise of nation-state, and mainly by the expansion and influence of global media'.

The establishment of media conglomerates through satellite penetration is undeniable and arguments made by both Schiller [32] and Herman and McChesney [33] seems very relevant here. But the most interesting question is how will this relate to the emerging new media such as the Internet and the World Wide Web? Unlike the traditional media, the Internet has a high possibility not to be censored. This is the case in Malaysia where Section 3 of the Communications and Multimedia Act clearly prohibits any form of Internet censorship except for defamatory and false information provided under section 233 of the Act, which allows legal action to be taken. Moreover, the censorship prohibition is built into the Bill of Guarantees for the development of the MSC [34], [35:51]. The total diversification of government policy concerning censorship with regards to the Internet obviously has to do with the policy concerning the establishment of a mature democratic society heavily promoted through Vision 2020. It is hoped that this freedom will allow society to be more exposed to global information and knowledge in order to prepare the nation to join the information society, whilst helping the government to realise its vision of becoming a developed country by 2020 [36:162]. But the most important to this is the relationship between cultural domination and maintaining national identity. Clearly stated in Vision 2020 for the promotion of a mature, democratic society, the policy of trying to ensure a diverse culture and eventually the creation of Malaysia's own national identity continues to be well preserved [36:58-159]. But the spread of American/global media conglomerate and their domination of the global media through the World Wide Web are becoming enormous and unstoppable. Although in Malaysia it is very early to predict that cultural domination through the Internet will take place and what the implications will be for the maintenance of national cultures and identity, the experience of satellite TV and the establishment of global products and services point to an emerging hybridisation of culture in Malaysia. Obviously the use of the World Wide Web by transnational media conglomerates will further accelerate these developments.

One important consequence would be for the establishment of national identity and the contradiction posed by the policy itself. On one hand the government is trying to be democratic by providing and allowing its citizens to have their rights to

⁷ Unlike the Hong Kong and Taiwan "kung-fu" movies which normally use long swords and their acrobatic ability, the Malay *silat* is a form of traditional self-defence that uses short knives known as *keris* and are very unlikely to have the ability to fly from one tree to another (such as the images portrayed in the Hong Kong movie, "Crouching Tiger Hidden Dragon")

access and communicate, but on the other hand the difficulty of censorship would create a tense relationship with its Vision 2020 aim for the creation of its own national identity.

The evidence of growing inequality translated through the digital divide would obviously have consequences for the further perpetuation of the means of democracy in Malaysia. However, what the meaning of democracy will be if the issues of access to information via ICTs continues to develop as a major obstacle is not at present clear.

In summary, the findings show that the consequences of ICT policy to further develop the economy in the context of the government's positioning as part of the global economy are creating growing inequality within society. On one hand, it might be true that the ICT development in Malaysia is contributing well to the economic growth as is evident in the increasing quantity of international private capital and the changing occupational structure that helps create the growing income level. On the other hand, the growing inequality linked to the digital divide within society such as the uneven distribution of ICT infrastructure, the widening class division especially among the Malay groups, the issues of language and even cultural establishment are the important negative factors for the government's efforts to maintain the country's unity.

As Vision 2020 clearly emphasises, in order for the country to be developed, the development of its economy should be accompanied by the establishment of a united Malaysian society with a sense of shared and common destiny. The findings have shown that there is a clear contradiction in the government's efforts to satisfy both its economic and social relationship as translated through the growing inequality within society as a result of the country's economic growth through the use of ICTs. Obviously if this continues to be the case, it is hard to suggest that the creation of Malaysia's own national identity and the achievement of the vision to become a developed country strongly promoted in Vision 2020 are likely to occur.

This paper taken a forward step in the study of the consequences of ICT policy for Malaysian society. With the focus of researching the possibility of contradictions within government policy, this study is essentially very broad in its context. It is hoped that the findings here constitute a new research dimension in the domain of social science in Malaysia, particularly those concerning our understanding of a policy and its consequences. This paper may also provide a platform for studying globalisation, ICTs and national identity for those countries in a similar situation in Malaysia. More importantly, the findings of this study will provide the Malaysian government with a general view when preparing for future outcomes and future policy establishment, focusing especially on maintaining the country's social relationships for the sake of solidarity.

Researching this phenomenon has not been an easy task and this study has examined a broad range of areas of government ICT policy in understanding its consequences for the economy and social establishment in Malaysia. The findings have been beneficial in identifying the contradictory factors involved in these consequences, which is very important for the government in preparing for the possible future outcomes. The findings have also shown some consistency with ideas

promoted by many 'information society' scholars and theoreticians such as Webster (information and society), Winston (technology and society), Castells (ICTs, economic and social division), Schiller (capitalism and information) and Habermas (the public sphere).

Whatever the theories, ideas and concepts promoted by scholars are, the intensification of global economy supported by ICTs is presenting both opportunities and dangers. The study has shown that, although the engagement in ICTs contributes to many opportunities for economic growth, it also contributes to greater divisions in society. In Malaysia this has presented a clear contradiction. Being a country that is very much dependent on the unity of its society, awareness of these contradictions was seen as being crucial in maintaining future progress. Failure to respond to these difficulties would make the effort to further develop the country based on unity and the establishment of its own national identity and hence achieving the Vision 2020 targets, difficult to achieve. Obviously, this is an unintended consequence of Vision 2020 that the government needs to realise. But still the question here is what could be done to prevent this contradiction? What other choices does the government have in dealing with the matter?

VI. CONCLUSION

It must be admitted that it is difficult to argue against the beneficial factors that ICTs brought to the economic growth of Malaysia, as it is equally difficult to argue in favour of some of its consequences. For the government, the juncture between both of these is critical. If the government continues to believe that ICTs could be the means of competing in the global economy, then it has no other choice rather than to accept that it will create greater divisions in the society. But to ignore this growing inequality is certainly a mistake.

As to what action could be taken, the only promising hope is to narrow the gap as much and as fast as possible. No doubt many efforts have been and are being made to narrow this gap. Looking at the present situation of growing inequality in the most critical areas such as in regional divisions and the continuous marginalisation of Malay ethnic groups, it suggests that the effort has not been strong enough. As the country's future progress is very much dependent on the unity of her people, growing gaps in society would obviously create a new form of economic imbalance. The worries are that this might impact upon social and political instability, as was the experience during the bloody racial riots of 1969.

Among many other areas it seems clear that the effort to narrow down the regional divide and preferential ICT policies towards the poor rural community groups are the areas most in need of emphasis. As in the regional divide, there is a need for the government to shorten the period for providing more access to ICTs regardless of region. For example, if the plan for a national ICTs infrastructure is presently a feature of the medium to long-term plans, it is suggested that this effort should be brought forward into the short-term plan. Many setbacks that contribute further to the growing inequality identified in these findings have resulted from the lack of accessibility of ICTs. With the focus on poor rural community areas, it is hoped that a further uplift for these particular disadvantage groups can further narrow the gap. Based on

past historical and economic experiences, this is the only means of bringing them up into the centre of economic development. Without this, the idea of creating Malaysia's own national identity will be difficult to emerge and thus the achievement of the Vision 2020 will continue to be elusive.

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