INDIVIDUAL ABSORPTIVE CAPACITY OF HOST-COUNTRY NATIONAL (HCN) WORKERS OF FOREIGN MNC(S) IN ELECTRICAL AND ELECTRONIC SECTOR IN MALAYSIA

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by

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"Dan Allah mengeluarkan kamu dari perut ibu kamu **dalam keadaan tidak mengetahui sesuatu apa pun**; dan dia mengurniakan kepada kamu pendengaran dan penglihatan serta hati (akal fikiran): supaya kamu bersyukur"

(Surah Al-Nahl: Ayat 78)

"It is He Who brought you forth from the wombs of your mothers when ye knew nothing and He gave you hearing and sight and intelligence and affections: that ye may give thanks"

(Surah Al-Nahl: Verse 78)

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ABSTRAK

Tujuan utama kajian ini adalah untuk membuat pemeriksaan empirikal terhadap keupayaan menyerap individu, terutamanya yang melibatkan faktor penentu dan hasilnya, di samping membuat penambahbaikan dan pengesahan terhadap instrumen kajian bagi konstruk terbabit. Penambahbaikan dan pengesahan konstruk juga dilakukan terhadap pemerolehan pengetahuan individu. Hasil dari pembaikan dan pengesahan konstruk, didapati bahawa keupayaan menyerap individu terdiri daripada tiga dimensi utama iaitu keupayaan mengenalpasti, mengamilasi, dan mengaplikasi pengetahuan. Bagi pemerolehan pengetahuan individu pula, instrumentasi kajian didapati membentuk satu pengukuran komposit, yang wujud dengan satu dimensi sahaja. Berasaskan teori kognitif sosial, penyelidik telah membentuk satu kerangka kajian, yang kemudiannya beberapa hipotesis telah dibangunkan. Bagi tujuan pengutipan data pula, kajian ini menggunakan sampel yang diambil dari direktori MIDA, yang melibatkan syarikat-syarikat MNC asing yang terlibat di dalam sektor elektrik dan elektronik di Malaysia. Unit analisis kajian adalah individu, yang melibatkan pangkat peringkat penyeliaan (eksekutif) atau lebih tinggi. Sebanyak 1245 borang soal selidik telah diedarkan dan berjaya mendapat respon sebanyak 28 peratus (345 kes), dengan 88.4 peratus kadar kebolehgunaan (305 kes). Data kemudian ditapis, dan disahkan, sebelum diuji menggunakan Model Asas Varian Persamaan Struktur. Selain bertujuan menjawab hipotesis kajian, dapatan kajian juga berjaya membuktikan bahawa pembolehubah di dalam model kajian adalah sangat bersesuaian antara satu sama lain. Manakala dapatan kajian bagi pembolehubah utama berjaya membuktikan secara empirikal bahawa keupayaan menyerap individu adalah ditentukan oleh budaya organisasi. Keupayaan menyerap individu juga didapati mempunyai kesan positif terhadap tingkah laku inovatif individu dan pemerolehan pengetahuan individu. Selain itu, kajian ini juga mendedahkan penemuan yang tidak disangka berkaitan dengan hipotesis moderasi, yang kemudiannya beberapa penjelasan berkenaan dengan situasi di atas telah diteroka di dalam bab perbincangan.

INDIVIDUAL ABSORPTIVE CAPACITY OF HOST-COUNTRY NATIONAL (HCN) WORKERS OF FOREIGN MNCs IN ELECTRICAL AND ELECTRONIC SECTOR IN MALAYSIA

ABSTRACT

The main purpose of this study is to provide an empirical examination of individual absorptive capacity, its antecedent and outcomes, as well as improve the individual absorptive capacity and individual knowledge acquisition constructs. On that basis, the new validated individual absorptive capacity construct that has reflectively measured in three dimensions, namely the ability to identify, assimilate, and apply knowledge was successfully established. For the new validated individual knowledge acquisition construct, it has been identified to form a single composite measure. Underpinned with social cognitive theory (SCT), the researcher has designed the theoretical framework by which some hypotheses were later developed and tested. In the data collection process, the study used a sample taken from the MIDA directory, which includes foreign MNC companies engaged in the electrical and electronics sector in Malaysia. The unit of analysis is the individual at a supervisory (executive) level rank or higher. For data collection purposes, a total of 1245 questionnaires were distributed via mail survey and the drop-and-collect approach. The response rate was 28 percent (345 cases) with an 88.4 percent usability rate (305 cases). The data was then screened and validated before it was tested using Variance-based SEM. The test results, in addition to answering the research hypotheses, showed that the variables in the model fit nicely with each other. In the hypotheses test, the study provided evidence that individual absorptive capacity was anteceded by organizational culture (OC), and positively influenced individual innovative behavior (IIB) and individual knowledge acquisition (IKA). In addition to these anticipated findings, the study also revealed the unexpected discovery on the moderating hypotheses. Further possible explanations related to the hypotheses results were then explored in the discussion chapter.

LIST OF ABBREVIATIONS

ABS	Individual Absorptive capacity
AVE	Average Variance Extracted
CB-SEM	Covariance Based - Structural Equation Modeling
CFA	Confirmatory Factor Analysis
CMV	Common Method Variance
E&E	Electrical and Electronic
EDA	Exploratory Data Analysis
EFA	Exploratory Factor Analysis
GOF	Global Goodness of Fit
HCN	Host-country Nationals
HR	Human Resource
IIB	Individual Innovative Behavior
IJV	International Joint Venture
IKA	Individual Knowledge Acquisition
KMO	Kaiser-Meyer-Olkin
MIDA	Malaysia Investment Development Authority
MNC	Multinational Corporation
PCA	Principle Component Analysis
PLS-SEM	Partial Least Square – Structural Equation Modeling
SE	Self-efficacy

CHAPTER 1
INTRODUCTION

1.1 Introduction

The modern global business organization requires a pool of talented people from various nationalities and backgrounds to work together in a specific organizational setting to achieve specific goals. However, prior to achieving any organizational goals, learning activities take place as a first step to strengthen the foundation of performing specific tasks. Such learning activities that involve interactions between individual personal factors and the organizational environment, which produce changes in individual behavior, can be explained by social cognitive theory (SCT).

The social cognitive theory (SCT) views the organization as a collective social system made up of individual members of that organization who process information and develop knowledge within a specific organizational setting (Albino, Garavelli, & Schiuma, 1999). The theory also explains that the influence of environmental factors in stimulating personal factors, such as attitude, learning capability, and individual abilities, results in changes in behavior, such as the behavior of being innovative and acquiring useful knowledge (Bandura, 1986). Differences in organizational environmental setting, such as organizational culture, also produce different implications on individual personal factors that carry different behavioral changes in individuals (Bandura, 1977).

In Malaysia, the MNCs organizational culture is different from one to another since it is originated from different countries that are strongly influenced by the home country culture. Therefore, local workers who serve in these organizations are indirectly exposed to the new cultural setting, which affects their capability to absorb

knowledge or also known as absorptive capacity (Kwantes & Boglarsky, 2007), that afterwards give implication to their behavior of acquiring knowledge and become innovative. That situation will reflect to the learning process of host-country national (HCN) workers in MNCs.

The learning activities in MNCs are also recognized as one of the important factors that contribute to the human capital development in Malaysia since MNCs are known as technological imprint that introduces recent technology to the host-country national (HCN) workers. In addition to the learning activities, MNCs also contribute to significant foreign direct investment (FDI) inflow into the country and being recognized as one of the important drivers to accelerate the economic growth in Malaysia (Bank Negara Malaysia, 2011).

The arrangement of this chapter starts with general overview on social cognitive theory, followed by a description of the scenario of MNCs, FDI, labor development, and human capital development in Malaysia. The problem statement, research objectives, research questions, research gap, scope of the study, significance of the study, and contribution of the study are then presented. Key terminologies have been inserted into the last part of this chapter to clarify the specific knowledge management and behavioral terms that have been used in this study.

1.1.1 MNCs, FDI, and the Development of Human Capital

Worldwide, there are 82,000 MNCs, with 810,000 affiliates, that actively operate around the globe with more than 77 million workers (UNCTAD, 2009). These companies make significant contributions to the world's economic development, especially among developing nations.

The majority of MNCs undertake business expansion overseas to gain the localization of economies and expand product markets (Hill, 2008). Of all the approaches in international penetration, foreign direct investment (FDI) is the most preferred way due to the cost utilization and strategic market development benefits. The acceleration of FDI benefits the receiving countries by providing more jobs to locals, increasing opportunities to local vendors, increasing the currency exchange value, and stimulating GDP increase (Bank Negara Malaysia, 2011). The FDI activities also help to accelerate the human capital development and nation's economic growth (Rasiah, 2002).

Through the policy reform, financial liberations such as extending the foreign equity limits, flexibility in firms operations, and issuance of new licenses, the FDI inflow to Malaysia has significantly increased (Rasiah & Govindaraju, 2011). Figure 1.1 illustrates the Malaysia FDI inflow from 1970 to 2010.

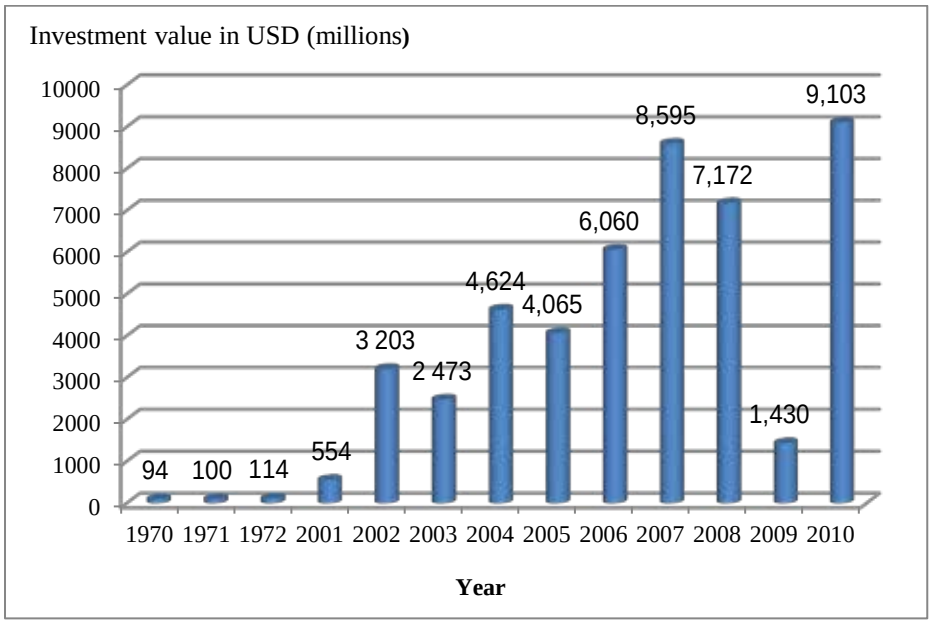

Figure 1.1
Malaysia FDI Inflow from 1970 to 2010 (USD millions)
Source: UNCTADstat (2011)

The above graph shows that the pattern of FDI inflow demonstrates a dramatic increase from 1970 to 2010. It starts with initial value of 94 million dollars in 1970, but by 2010 it has reached 9.1 billion. Even with heavy FDI fluctuations during 2008 and 2009, Malaysia made fast recovery in 2010 with a 536 percent increase after various programs and efforts were made by the government to attract more international investors to place their investment in Malaysia.

The positive results from the government initiatives are that a substantial number of MNCs have expanded their business operations in Malaysia. At end of year 2009, there were 1776 MNCs actively operating in Malaysia under various types of investment activities, such as green field investment, brown-field investment, and portfolio investment (Business Monitor International, 2010). The majority of MNCs in Malaysia involve in manufacturing sector, and the reason for their involvement in that sector is to take advantage of the economical benefits offered by the government. These incentives include pioneer status, investment tax allowance, accelerated capital allowance, accelerated capital allowance on equipment to maintain quality of power supply, accelerated capital allowance on security control equipment, incentive for industrialized building, system incentives for high technology industries, incentives for strategic projects, and incentives for the setting-up of international/ regional service-based operations (Malaysian Industrial Development Authority, 2008).

Through incentive and tax exemption programs, the government has spent billions of Ringgit of tax revenue just to attract more MNCs to come and invest in Malaysia. The cost that the government has spent to attract investment from foreign firms is expected to give something in return to the nation. It is expected to

contribute to the human capital development, with long term benefits to the local workers. The investment made by MNCs is also expected to provide better access to new technologies, good managerial expertise, and recent technical knowledge that help local workers to improve their skills and enhance their capabilities and competencies to perform more sophisticated tasks in their daily profession, and foster the country's human capital development. For these reasons, MNCs technologies, knowledge, and investment are considered as a short-cut to national human capital development (Ranis & Stewart, 2000), and local workers are encourages to take advantage of the knowledge and skills available (Noorbakhsh, Polani, & Youssef, 2001).

1.1.2 Human Capital Development and Innovation in Malaysia

Malaysia's aim to be high-income nation requires a serious transformation in human capital development. Such a transformation requires a comprehensive plan in developing and retaining the local competencies in various disciplines. To achieve this goal, Malaysia needs to strengthen the foundation of domestic skills and talent development, which involves improvements in the education system, training system, and industrial training system. This also includes the "processes that relate to training, education, and other professional initiatives in order to increase the levels of knowledge, skills, abilities, values, and social assets of an employee which will lead to the employee's satisfaction and performance," (Marimuthu, Arokiasamy, & Maimunah, 2009, p. 266). In effect, the human competencies derived from education and training that carry social and economic benefits to people is expected to increase the local workers' competencies (OECD, 2001).

At a broader perspective, the accumulation of human capital at an aggregate level is known as the human capital index. Compared to other nations, Malaysia's position in the world ranking is slightly lower than neighboring countries such as Singapore, Brunei Darussalam, Thailand, and Philippines. The comparison of the human capital index value across nations is presented in Table 1.1 below.

Table 1.1
Human Capital Index and Adult Literacy Rate in Selected Countries

World Ranking	Country	Human Capital Index	Adult Literacy Rate (%)
48	Singapore	0.9203	94.40
66	Thailand	0.8919	94.10
67	Brunei	0.8918	94.90
78	Philippines	0.8881	93.40
96	**Malaysia**	**0.8543**	**91.90**
97	Indonesia	0.8540	92.00

Source: United Nations (2010)

The above ranking shows Malaysia at 96th in the world human capital index. This ranking, produced by the United Nations from an e-government survey in 2010, holds serious implications for the credibility of the Malaysian government's achievement of a high-income country status, which of course, requires a high human capital index and adult literacy rate. The government's programs to increase the human capital development in Malaysia include the allocation of specific funds to cater the workers' training needs, such as Human Resource Development Fund (HRDF) and Skills Development Fund (SDF), setting-up new programs and introducing suitable schemes such as The Industrial Skills Enhancement Program

(INSEP), Student Apprenticeship and Graduate Employability Management Scheme (GEMS), introducing more technical education programs, such as Technical Education and Vocational Training (TEVT), forming a smart partnership between industry and local universities under the Knowledge Transfer Program (KTP), and initiating the Recognition of Prior Learning Program (RPL) with the purpose of recognizing the expertise and experience of workers' who do not have certificates or academic qualifications (The Economic Planning Unit, 2010).

In addition to the existing stimulation programs, the government has also initiated aggressive action to attract the return of Malaysian talent abroad. The scheme, which comes under Talent Corporation (TC) with the full mandate of Prime Minister's Department, is expected to accelerate the growth of national human capital and significantly benefit economic growth. Other useful programs under Talent Corporation, such as Returning Expert Program (REP) and Brain Grain Program (BGP), are expected to catch the attention of talent from overseas. If all of the planned programs work properly, Malaysia's plans are on track to address the human capital problem, especially related to skilled labor, that directly affect economic growth and the nation's development.

Even with the recent initiatives and programs implemented by the government, total skilled labor in Malaysia is still inadequate to cater to the needs of local and international firms (The World Bank, 2011). This is supported by the statement made by the Economic Planning Unit (2010) in the Prime Minister's Department, stating that Malaysia was just able to produce 28 percent of the total domestic workforce as high-skilled labor ready to serve to the nation. This situation requires immediate action to upgrade the skills of the existing labor force through

private sector participation in the training and development programs if the government hopes to get the proportion of skilled labor to at least 50 percent of the total workforce by 2020 (The Economic Planning Unit, 2010).

In this context, in-house training and development in private sectors especially from MNCs is perceived to have significant contribution in assisting the acceleration of human capital development in Malaysia. The MNCs are identified as important channel to assist the development of human capital intensity to the nation due to the capability of MNCs to provide recent technological training and up to date techniques to local workforces. Local workforces are normally sent for training by MNCs with the intention to increase their skills and competencies that afterwards will contribute back to the organizations. Once local workforces receive enough training provided by MNCs in certain area, they will be more competent to perform specific tasks. This situation is expected to accelerate the increase of skilled workers in Malaysia.

Examples of MNC investment in Malaysia that benefit the local workforce are the Intel Corporation R&D Center in Penang that undertakes R&D activities for global IC design used for the development of innovative Atom chip, the expansion of Altera Corporation, the largest group for ASIC (Application Specific Integrated Circuit) design company, with its largest offshore R&D centre, and the investment in a solar technology production plant worth RM 2.2 billion by Bosch in Batu Kawan, Penang. Intel, for example, at its R&D center, has recruited and trained many Malaysians to support its R&D activities. Besides these firms, there are many more MNCs that operate in Malaysia, such as AMD, Seagate, Honda Motor, Onkyo, Enfenion, Osram, IBM, Motorola, Exxon Mobil, Hewlett Packard, Dell Asia Pacific,

Toyota, Nokia, Western Digital, KPMG International, Oracle Corporation, Ericsson, Samsung, Sony Malaysia, Agilent Technologies, Jabil Circuits, Flextronics, BBraun, and Avago Technologies.

In Malaysia, MNCs are widely recognized as one of the major catalysts in accelerating human capital development (Rasiah, 2002), as they offer employment opportunities, training and development, and technology transfer activities (Lim & Fong, 1982). There are workforce benefits to the MNCs as well. Being dynamic organizations that need to fastly evolve in order to manage cost reduction pressures and competitive advantage priorities, employing local workers becomes key factor in meeting the MNC cost reduction needs. The local workforce can normally be employed at a much lower cost than parent-country workers or expatriates (Harzing & Van Ruyseveld, 1995). Therefore, MNCs prefer to train locals rather than appoint expatriates since the training costs are less compared with the expatriate costs (Hailey, 1993). Appointing expatriates requires MNCs to provide cultural training, allocate expensive salary schemes, and also bear the consequences of cultural break-down between expatriates and local staff (Hailey, 1993). This situation has lead to the reduction of the number of expatriates in Malaysia. Since 2000, the total number of expatriates has decreased 9 percent on average annually, as illustrated in Figure 1.2 below.

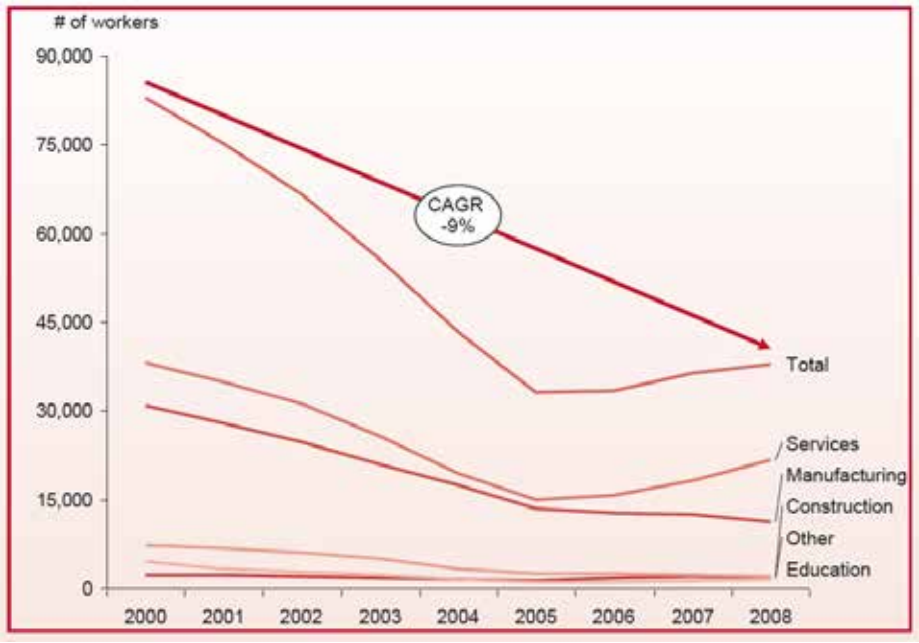

Figure 1.2
Number of Expatriates in Malaysia from 2000 to 2008
Source: The Economic Planning Unit (2010)

Because of the cost advantages, MNCs prefer to appoint and train local workers to acquire knowledge and become proficient in their job tasks. The government programs and incentives also motivate MNCs to train locals in skills enhancement program that foster the development of human capital in Malaysia. This investment in Malaysia's human capital underpins the Government's efforts, and goes a long way to making its long term goal of being a high-income nation a reality.

Another development component of being a high-income country is the level of the nation's innovation, that is, an innovative economy requires more innovative human capital to drive and sustain the nation's development. And the formation of the National Innovation System (NIS) is a result of the Government's effort to position Malaysia as one of leading innovative economies of the world. This action has already shown positive results, with continues improvement in Malaysia's

UNCTAD Innovation Capability ranking. In 2005, Malaysia ranked 60th, which is far better than 1995, ranked at 67. The ranking of innovation capability has continued its good progress as in 2011 the Global Innovative Index ranked Malaysia at 31st position. The below table portrays the summary of Global Innovation Index (GII) ranking among South-east Asian countries.

Table 1.2
Global Innovation Index 2011

Country	Score (0-100)	Country's Income Category	Global Innovation Index Ranking (2011)	Global Innovation Index Ranking (2010)
Singapore	59.64	High Income	3	7
Malaysia	**44.05**	**Upper Middle**	**31**	**28**
Thailand	37.63	Lower Middle	48	60
Viet Nam	36.71	Lower Middle	51	71
Brunei	30.93	High Income	75	48
Indonesia	27.78	Lower Middle	99	72
Cambodia	25.46	Lower Income	111	102

Source: INSEAD (2011)

Even though Malaysia's position in the Global Innovation Index slightly dropped in 2011, its overall ranking is still satisfactory. Among the upper-middle income countries, Malaysia is ranked first in innovation capabilities. Compared with neighboring countries in the South East Asia region, Malaysia ranks second just after Singapore. Overall, Malaysia is progressing well in innovation activities, and its ranking has improved more than 50 percent within 14 years. However, its current position in the Global Innovation Index, Malaysia's innovation level is still

insufficient to transform the economy into an innovative knowledge economy and high-income status country. Malaysia needs to improve the innovation in its economy and achieve a top 20 ranking as all high-income nations fall within the top 20 ranking cluster.

Based on INSEAD's (2011) report, the Global Innovation Index is derived from two main measurements. Those pillars are the innovation input sub-index and innovation output sub-index. The innovation input sub-index comprises institutions (political environment, regulatory environment, and business environment), human capital and research (education, tertiary education, and research and development), infrastructure (ICT, energy, and general infrastructure), market sophistication (credit investment, and trade and competition), and business sophistication (knowledge workers, innovation linkages, and knowledge absorption). Meanwhile, the innovation output sub-index consists of scientific outputs (knowledge creation, knowledge impact, and knowledge diffusion) and creative outputs (creative intangibles, and creative goods and services). Malaysia's scores are 35.2 for innovation output sub-index and 52.9 for innovative input sub-index. From these score, Malaysia's innovation output sub-index is at 35th position and the innovative input sub-index at 27th position. The aggregate ranking for Malaysia, after both innovation sub-indexes are combined, is at 31st place.

Despite the innovative index world ranking at 31, there have many sub-components for innovation that need further improvement. Based on the INSEAD (2011) survey, the important sub-index items that affect Malaysia's global innovative index ranking are the knowledge creation sub-index (at 63th place in

global index), knowledge impact sub-index (ranked 65th place), and creative goods and services sub-index (ranked at 54th place).

In conclusion, the summary of global innovative index highlights the need for Malaysia to strengthen innovation in knowledge creation, knowledge impact in developing a new business, and producing creative goods and services. In order to improve these three components, Malaysia needs to embody innovative human capital that can serve the nation and transform the current economy into innovative knowledge economy. Specifically, the innovative human capital needs to be derived from a pool of innovative workers who perform the innovative behaviors at their workplace. Hence, improving innovative behavior at the workplace is considered as one of the important elements in the process of improving the overall nation's innovation.

1.2 Problem Statement

Human capital development is considered as one of the most important foundations required to achieve the status as a high-income nation. However, accomplishing that goal depends on comprehensive actions that systematically develop and nurture the talent in Malaysia. These actions include, but are not limited to, providing education from primary to tertiary level that meets the needs of industry, and also upgrading the existing workforce skills by proliferating the level of know-how absorption at their workplace. Know-how absorption or specifically known as the ability to absorb knowledge in an organization is an important predecessor for learning activities in technologically advanced corporations. Without this ability, enhancing the capabilities of the local workforce through up-skilling programs that help them acquire knowledge at their workplace will be very difficult. The inability to upgrade the skills of the existing workforce at their workplace hampers not only the human capital development goal, but also the country's 2020 developed nation objective.

The presence of foreign MNCs in Malaysia is expected to benefit the nation's human capital development through training and knowledge transfer programs. The training increases the local employees' competencies, and affects almost all levels of local employees, from production operators to upper-level officers (Blomstrom & Kokko, 1998). The foreign MNCs training programs also provide knowledge of advanced technologies to local workers, who are expected to absorb and apply that knowledge to increase their technical and managerial ability in addition to improving their job performance. Local workers who gain knowledge from foreign MNCs are also expected to increase their skill level after the training.

However, whether host-country national (HCN) workers or local workers have the ability to absorb and apply knowledge from the foreign MNCs knowledge transfer activities are not empirically examined. Empirical examination of the increase in their skills and competencies through knowledge acquisition can reveal the current state of local workers' abilities to absorb knowledge provided by foreign MNCs. Owing to that situation, empirically examine the ability of local workforces to take opportunity from the presence of foreign MNCs from all around the world to increase their skills and competencies through knowledge acquisition is something worth to be known since it can reveal the current state of local abilities to absorb foreign knowledge in MNCs. This information can help to shape the guidelines for the government to design new human capital development policies that strengthen Malaysia's ability to benefit from MNCs' technology and expertise.

The capability of host-country national (HCN) workers to use foreign MNCs as a platform to acquire up-to-date knowledge and become more innovative has also not been empirically examined. Besides workers benefiting from the presence of MNCs, another important concern is whether HCN workers can increase their skills to be highly-skilled and then translate those skills to become innovative and creative. This area is largely focused on the learning capabilities of local workers to absorb knowledge and then apply it.

Since foreign MNCs are always involved in knowledge transfer activities from headquarters to subsidiaries (Gupta & Govindarajan, 2000), local workers need to have sufficient learning capabilities to absorb the transferred knowledge. However, there has not been an empirical investigation into the intensity of locals' absorptive capacity. There is limited research into the issue of local workers' ability

to advance their skills up to the level of highly-skilled labor. The World Bank 2009 Survey Report partially addressed this area:

> "While Malaysia has a base of talented people, the challenge is to expand the supply of highly-skilled labor. The level of education attainment of the labor force has improved somewhat in recent years. But firms continue to report the inadequacy of the labor force's skills as the top obstacle in terms of Malaysia's investment climate."
>
> (The World Bank, 2009, p. 65)

Given the lack of existing studies that have investigated the level of absorptive capacity among HCN workers in foreign MNCs, and the potential benefits that the study could offer, there is a critical need for the researcher to empirically examine this issue. This study is expected to empirically reveal the level of HCN workers' ability to absorb knowledge from trainings and working in MNCs and translate that knowledge into innovative and creative behaviors.

In addition, there is growing interest in how foreign MNCs administer the knowledge flow process within the organization, besides their daily routines of production, innovation, and marketing activities (Gupta & Govindarajan, 2000). Their operations are "no longer seen as repositories of their national imprint but rather as instruments whereby knowledge is transferred to subsidiaries, thereby contributing to further knowledge development" (Minbaeva, Pedersen, Bjorkman, Fey, & Park, 2003, p. 587). Hence, there is a need to investigate the above phenomena by concentrating on the level of absorptive capacity of HCN workers who work in foreign MNCs. Even though Cohen and Levinthal (1990) have clearly claimed that a firm's absorptive capacity is built on individual absorptive capacity, in reality that capacity is not equally possessed by all individuals inside the firm

(Hamel, 1991). By possessing the ability to absorb knowledge, HCN workers can take advantage of the intra-MNC knowledge transfer process to enhance their skills through knowledge acquisition activities.

At another point of view, the existence of individual absorptive capacity will also give empirical evidence on its relationship with the capabilities of individuals to acquire knowledge in MNCs. So that, the empirical evidence from the study will help the researcher to identify inter-relationship between both variables which is very crucial in learning activities. The evidence regarding the intensity of absorptive capacity among HCN workers who serves with foreign MNCs is also needed in order to provide enough information for the policy makers to have explanation on high-skill shortage situation that happen in Malaysia. This situation has already been addressed in annual The World Bank report in Malaysia Economic Monitor 2011 as below.

> "While the share of citizens with tertiary education level went up considerably from 16 percent in 2001 to 22 percent in 2008, the fraction of citizens with higher skill occupations only changed slightly from 18.4 percent to 19.9 percent during the same period." (The World Bank, 2011, p. 111)

The report that produced by the World Bank tries to explain the inconsistency between the percentage increase in the number of those who have completed tertiary education level and those who have worked in high-skill job. In the process of gaining acceptance in high-skill job, that particular person must possess both academic qualification and wide range of skills in the related area. Between both, gaining wide range of skills in the related area is the hardest. It requires high learning capabilities in order to acquire skills or knowledge in any related area. The

learning capability in the learning process is actually referring to absorptive capacity of a person. The problem of having lower level of absorptive capacity gives influence on the individuals' capabilities to learn and acquire knowledge (Cohen and Levinthal, 1990) at the workplace before they can climb to be skilled-workers. In addition, the level of absorptive capacity among local Malaysian workers is currently understudied, and therefore research in this area is a need to provide significant contribution to the body of knowledge on workers' capability to acquire knowledge in MNCs.

In addition to the above concern, this study also tries to examine the knowledge acquisition behavior in MNCs. Having a complete set of absorptive capacity is not a guarantee for HCN workers to successfully acquire everything transferred to them if they do not perform the behavior to acquire knowledge or also known as knowledge acquisition. At individual level, knowledge acquisition is a behavior of a person in acquiring knowledge (Gupta, 2008; Minbaeva, Mäkelä, & Rabbiosi, 2010; Pedrosa & Jasmand, 2011) and it is not merely a process to obtained knowledge from others as claimed by Anh, Baughn, Hang, and Neupert (2006). Acquiring knowledge at the workplace is also the important element for further skill enrichment process that becomes promising factor for HCN workers to increase their skills to a higher level. This behavior is also identified as a turning point for local workers to improve their skills until they become expert or specialist in the related area. The benefits that HCN workers gain during their tenure in foreign MNCs are known as knowledge spillover effect. Many studies have revealed the evidences of knowledge spillover from home country to host country through training, international attachment, and socialization in MNCs (Gershenberg, 1987; Todo,

Zhang, and Zhou, 2009; Hooi, 2010; Hallin and Lind, 2011). However, the evidence on the behavior of local workers to acquire knowledge in foreign MNCs has yet not empirically examined. By examining this, the study will empirically uncover the situation of knowledge acquisition behavior among HCN workers in foreign MNCs. This information is useful for the government to design a suitable policy that can encourage more learning activities in foreign MNCs with the purpose of developing higher human capital level among local workforces and get maximum benefits from knowledge spillover effect in investing firms.

Besides the knowledge acquisition issue that matters the learning activities in MNCs, the innovative behavior of HCN workers is another important issue that requires more attention in empirical research. Hitherto, multinational corporations (MNCs) are busy making investment abroad, especially in developing countries to reduce their costs besides utilizing cheap local expertise (The World Bank, 2007). Their overseas investment activities have so far created significant contribution to global innovation activities especially in developing countries though indirect and direct spillover effect (The World Bank, 2007). The participation of HCN workers in foreign MNCs' innovation activities are expected to influence their innovative behavior that can results to the better innovative performance. Until now, the empirical evidence that verify the intensity of innovative behavior among Malaysian workers who serves with foreign MNCs is still very lacking. Providing the empirical evidence regarding the innovative behavior among local workers in MNCs will reveal the evidence of the influence of foreign MNCs environment on HCNs ability to be innovative and creative.

The skilled labors are created through experience by utilizing the learning activities that occurs at the workplace. However, at some extent, some workers' skills remain unchanged. They just can perform fundamental tasks that require fundamental knowledge to perform it even though the tenure of their service has elapsed for a very long period. In the worst case, they are not even be able to cope with new knowledge that internally delivered in the organization, and finally end up with the resignation or termination due to the poor performance. This situation is much related to the worker's inability to innovate and acquire recent knowledge at the workplace due to lack of capability to absorb knowledge from the valid source.

By examining the linkages between individual absorptive capacity, individual knowledge acquisition, and individual innovative behavior in foreign MNCs operated in Malaysia will help the researcher to contribute in validating the relationship between these variables. Even though many studies were done in absorptive capacity area, the empirical studies that specifically focusing on the impact of individual absorptive capacity on individual knowledge acquisition and individual innovative behavior are still very rare and hardly to be found. Basically, this study is derived by the following concerns:

i. The dearth of the empirical research that focuses on individual absorptive capacity that becomes main anchor for successful learning activities in foreign MNCs in Malaysia.
ii. The environmental factor that influences individual absorptive capacity.
iii. The influence of the individual absorptive capacity on individual knowledge acquisition and individual innovative behavior.

iv. The dearth of the study that comprehensively examines the moderating effect of self-efficacy in the relationship between individual absorptive capacity and individual knowledge acquisition, together with individual innovative behavior.

1.3 Research Gap

Recently, scholars' attention on absorptive capacity is increasing, especially related to the knowledge acquisition and innovation activities (Liao, Wu, Hu, & Tsui, 2010). This is supported by Lyles and Salk (2007) stating that there is a critical need for researchers to focus on absorptive capacity commesurability and the process that underying them. It brings the meaning that the area in absorptive capacity research is still far from getting matured and the room for further research in various angle of that domain is still widely opened.

The concept of absorptive capacity, introduced by Cohen and Levinthal (1990), exists as multiple level constructs (organizational level, business unit level, group level, and individual level). Nevertheless, the previous studies mainly concentrated on organizational level constructs (for example, Lane, Salk, & Lyles (2001); Koch & Strotmann (2008); Vinding (2006); Jansen, Van Den Bosch, and & Volberda (2005); and Fabrizio (2009)). Some authors, on the other hand, applied absorptive capacity at business unit level, such as Tsai (2001), and organizational level, such as Gupta and Govindarajan (2000), Minbaeva, Pedersen, Bjorkman, Fey, and Park (2003), Chiang (2007), and Takahashi (2009).

Despite this research effort, studies on absorptive capacity at the individual level in organizations are still lacking. It starts with Park, Suh, and Yang (2007) who studied about the effect of absorptive capacity on ERP, and then followed by Deng, Doll, and Cao (2008) who examined the absorptive capacity with the supportive environment among IT engineers. In 2010, Mu, Tang, and MacLachlan studied the role of individuals in knowledge transfer activities among network members. However, their measurements are not comprehensive enough to measure the absorptive capacity at individual level. In addition, their studies are also tapped in a context specific study and no generalization of the constructs is made known.

The limited amount of research available in this area shows that the extension of absorptive capacity study is required in order to verify the application of the multilevel construct that focuses on the individual level, as suggested by the statement below:

> "In terms of research priorities, more emphasis on construct development and measurement and on model building is mostly needed. Hopefully, these efforts will enable the third future research direction, the emergence of multilevel theory building regarding absorptive capacity."
>
> (van den Bosch, van Wijk, & Volberda, 2003, p. 31)

From the trend of absorptive capacity literature, it shows that there is a need for researcher to investigate the role played by individual absorptive capacity in the learning process due to various factors, including the ability of the absorptive capacity constructs to bridge to the trans-disciplinary studies (van den Bosch, van Wijk, & Volberda, 2003). In addition, individual absorptive capacity also plays an important role to assist the development of an organization's absorptive capacity (Cohen & Levinthal, 1990), which significantly influences the stimulation of firm's

performance (Lane, Salk, & Lyles, 2001; Tsai, 2001), innovation (Tsai, 2001; Chiang, 2007; Roxas, 2007; Gao, Xu, & Yang, 2008), and competitive advantage (Cohen & Levinthal, 1990).

Another issue about the absorptive capacity is regarding the missing link between individual and organizational absorptive capacity. Scholars, such as Cohen and Levinthal (1990), Zahra and George (2002), Todorova and Durisin (2007), Minbaeva, Mäkelä, and Rabbiosi (2007), and Flatten, Engelen, Zahra, and Brettel (2011), who studied absorptive capacity failed to bridge the inter-level connection between both levels. Studies that focused on organizational level constructs overlooked the explanation of absorptive capacity that requires individual cognitive activities to ensure the success of the organizational absorptive capacity. Individual absorptive capacity that impacts organizational absorptive capacity is still not being properly investigated. This investigation is assumed to assist the formation of new justifications on absorptive capacity concept that are more comprehensive and relevant.

Yet another important angle, largely ignored in the research stream, is the antecedents of absorptive capacity. In the space of ten years, from 1990 to 2009, the antecedents of absorptive capacity were circulated around the issues of prior related knowledge (Cohen & Levinthal, 1990), corporate culture (Harrington & Guimaraes, 2005), and external knowledge and past experience (Zahra & George, 2002). The details of absorptive capacity antecedents, from other angles, have not yet been subjected to intensive study, especially in knowledge management and organizational learning areas.

Researchers such as Lane, Koka, and Pathak (2006) recommended that environmental influence could also be another direction for future study of absorptive capacity. They suggested that future studies should also incorporate the environmental context such as regulatory and knowledge environment. Their suggestion was supported by Volberda et al. (2009), as follows:

> "It mainly shows that key antecedents to absorptive capacity itself have not received much attention, in particular intra-organizational antecedents. Moreover, studies on the exploitation of knowledge from the environment and intangible outcomes are underrepresented in the field." (Volberda, Foss, & Lyles, 2009, p. 2)

1.4 Research Objectives

i. To determine the level of individual absorptive capacity of HCN workers in Malaysia.

ii. To examine the influence of organizational culture as antecedent variable on individual absorptive capacity.

iii. To examine the influence of individual absorptive capacity on individual knowledge acquisition and individual innovative behavior of HCN workers in Malaysia.

iv. To determine whether self-efficacy moderates the relationship between individual absorptive capacity and both individual knowledge acquisition and individual innovative behavior.