



Impact of AEC on Education Business in ASEAN Countries: A Cross-National
Comparative Analysis

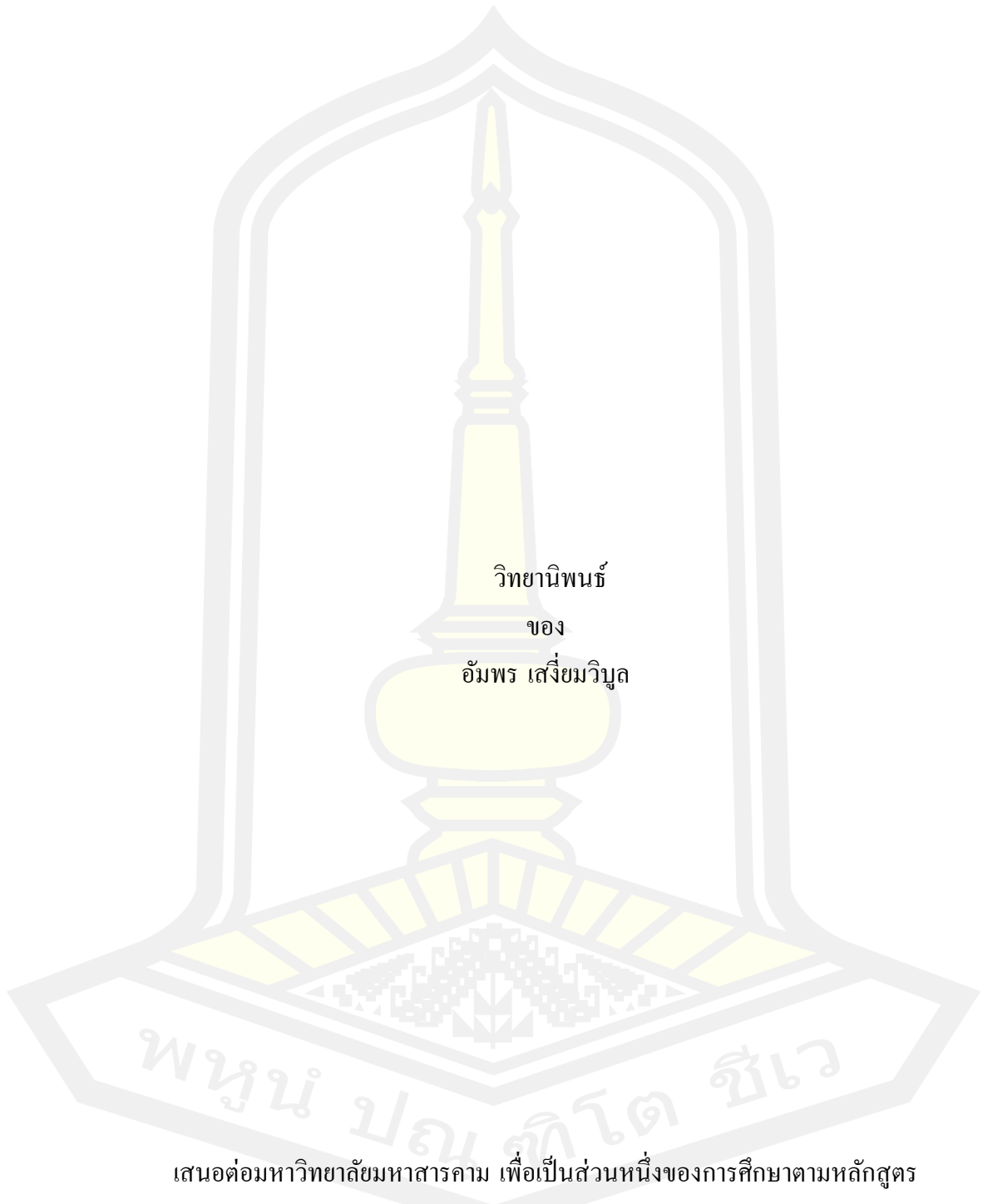
Amporn Sa-ngiamwibool

A Thesis Submitted in Partial Fulfillment of Requirements for
degree of Doctor of Philosophy in Business Administration and Digital Innovation

January 2022

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ABSTRACT

ASEAN Economic Community (AEC) has had enormous impacts on all sectors, including education business. This study therefore explored its impacts on higher education (HE) business in ASEAN countries. This study employed a qualitative, interpretive and cross-national comparative analysis of documents. The design of this study involved exploration, interpretation and logical organization of data, document and texts. Two main origins of data in this comparative analysis comprise primary sources and secondary sources. The data collection was compiled through systematic coding process. Reliability, validity check, confirmability, and triangulation were applied.

The results revealed these findings. The significant impacts of AEC are key achievements as a result of the four aspects of AEC (namely moving towards a single market and production base, removing barriers to trade, bolstering productivity, providing MRAs, gearing to a world class investment destination, and strengthening commercial viability). The prospective opportunities of AEC to all business sectors can be seen from the significant increase in theses: normal GDP of the region and each country shares, value and global share of selected indicators of ASEAN economy, the nominal GDP of agriculture, industry and service, and the balancing item from 2010 to 2018. The potential challenges to HE are quality of education (differences in quality of education, quality assessment, quality enhancement, quality of students, quality of the physical and academic infrastructure, student and faculty exchange, integrated education framework, contents of interdisciplinary and multidisciplinary studies, research, development of higher education quality and regional approaches, and professional education and job training), higher skill demand (regional skills competition, regional certification on MRA work-related skills, intraregional skilled labor mobility), and digitalization (width in digitalization and the width in ICT in education). Significant insights indicate emerging trends in recent developments in HE views education and knowledge as an international commodity. In response to emerging trends, two new forms of higher education are knowledge-based international and transnational HE such as Malaysia and Singapore. Major initiatives relate to institutional cooperation through ASEAN University Network (AUN) and other mechanisms and institutional connectivity (physical and digital connectivity). Lessons

from best practice highlights Singapore as the best practice of international and management driven, using programs such as 'Global Schoolhouse' and 'Singapore Education'. Keystones for higher institutions lies on interconnectivity among three factors: institutional connectivity (i.e., improvement of the regulatory environment to enhance connectivity within member states), people-to-people connectivity (i.e., exchange of cultural, tourism, education and know-how), and physical connectivity (i.e., infrastructure to support greater connectivity among and within member states). Implications for strategic implementation that need to be addressed are: enhancing knowledge-based institutions, adopting ICT, and accelerating interconnectivity. The evident from the analysis has several key implications as indicated in a roadmap for strategic management for HE institutions, including these 5 stages: 1) committing to uphold the quality education for capacity-building and providing upskill and reskill training, 2) developing into a knowledge-based international and TNE institution, 3) leveraging digitalization at the maximum level, building on ASEAN's technology and innovation-driven plan, 4) consolidating internal higher education cooperation, embracing external economic relations, fostering educational interconnectivity and sectoral cooperation, and accelerating interconnectivity, and 5) accelerating interconnectivity.

Keyword : AEC, Cross-National Comparative Analysis, Impacts On Education Business, cross-national comparative analysis, impacts on education business



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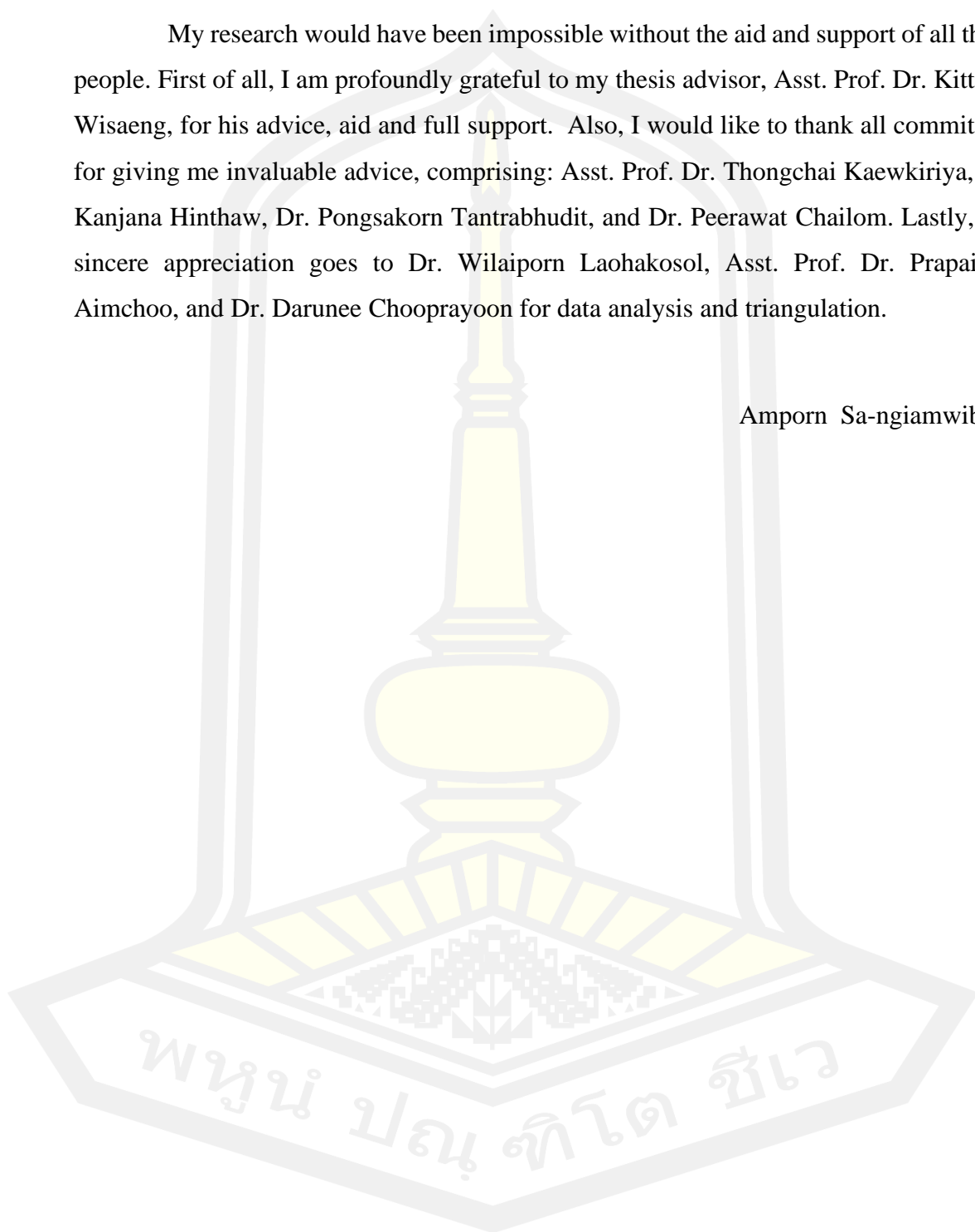
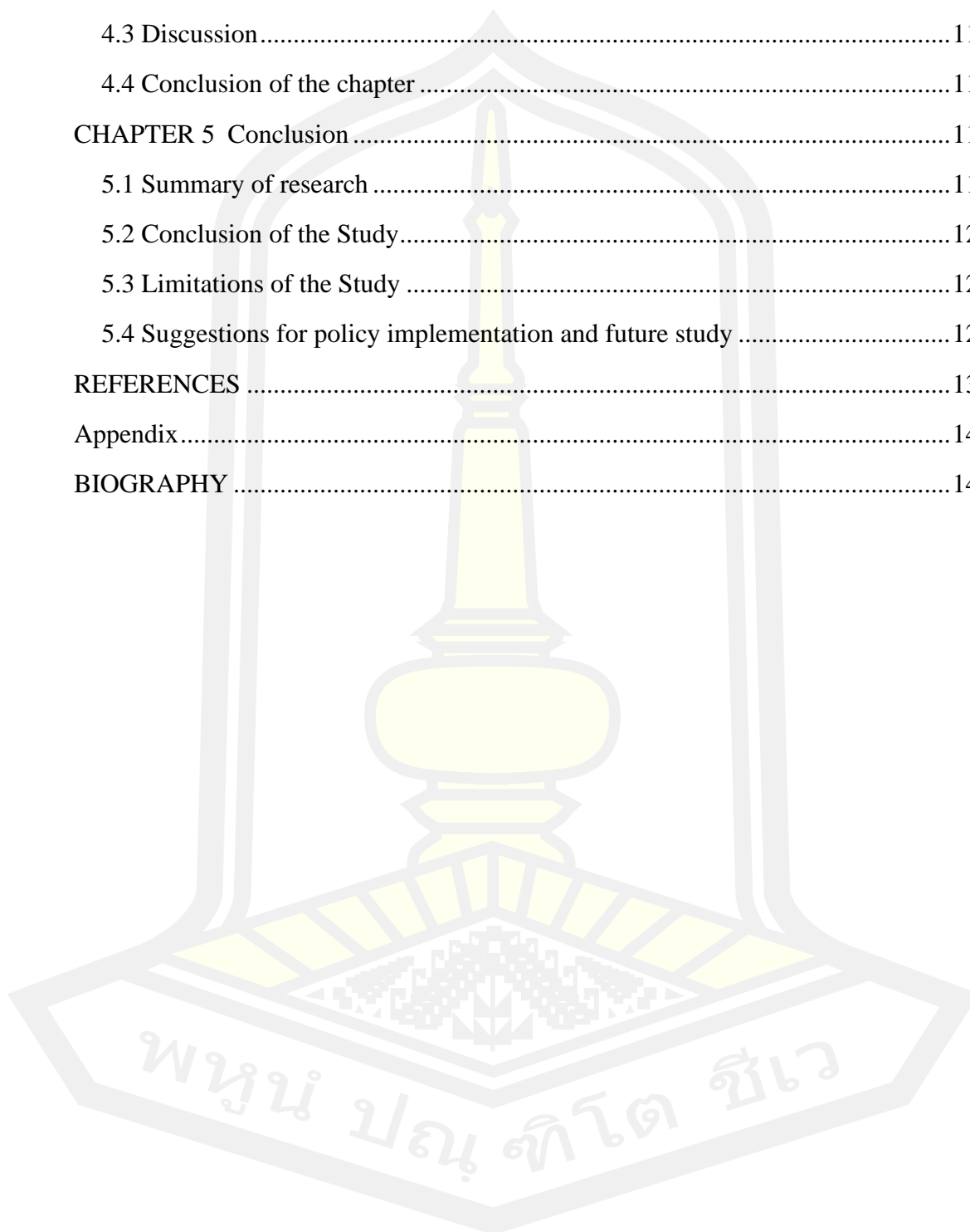


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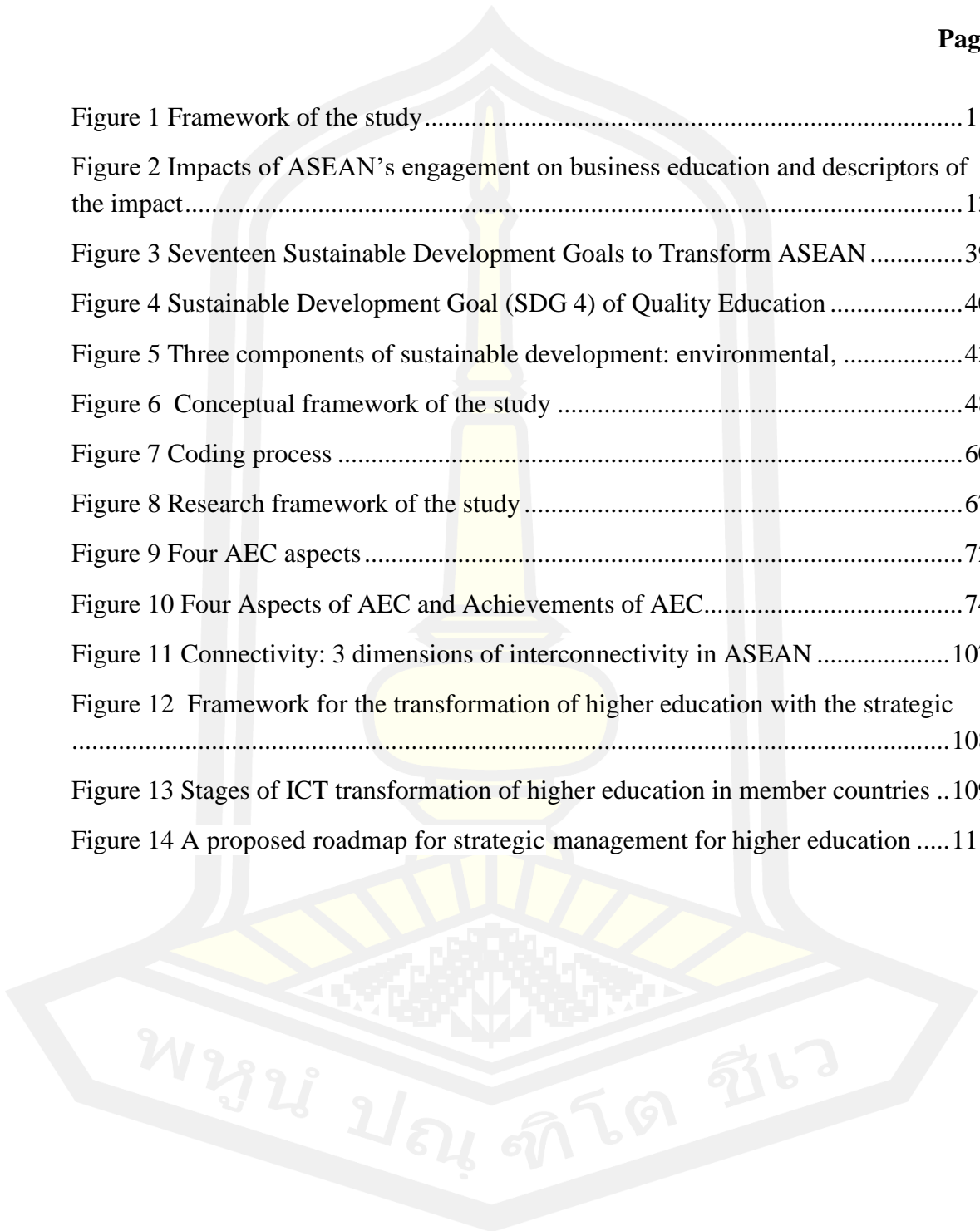


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CHAPTER 1

Introduction

1.1 Rationale for the Study

1.1.1 AEC and the Goal of a Single Market: Opportunities and Challenges

The vision of ASEAN Economic Community (AEC), which was inaugurated in 2015 by the Association of Southeast Asian Nations (ASEAN) (namely Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam), aims to create economic community. Lying integral to the goal of AEC and the creation of the economic community is to create a single market. Since aiming at one economy in 2015, ASEAN's \$2 trillion GDP made it the seventh largest in the world. This growth rate that is heading towards \$6 trillion by 2030 will make it the fourth largest in the world. Evidently, this economic integration has increased its economic competitiveness and prosperity.

This value is great prospective opportunities for ASEAN but potential challenges for all ten countries and the whole economic community still remains due to socio-economic, political and cultural hegemony within the region. In addition, economic integration is a highly complex process and has made enormous impacts on multidimensional aspects of the economy of the ten member countries at varying degrees. Insights of the prospective opportunities and potential challenges of this regional economic transformation play a vital role in preparation for realization of regional, economic community and integration into the global economy in the future.

1.1.2 Prior research on AEC

Prior research provides overviews, myriad aspects and significant details of the issues under analysis in this study. The key issues of prior research include progress, future direction of AEC, opportunities, remaining challenges and key factors. Prior research on education as a key driver for AEC is also included.

1.1.2.1 Prior study on progress and future direction of AEC

Studies on AEC progress involve these areas: regional development (Kobayashi et al., 2017), the present background of ASEAN connectivity (Vineles, 2017; Chia, 2016), connectivity to a wider global economic context (Abonyi, 2012), ASEAN integration and beyond (The ASEAN Economic Community of 2015 and Beyond), directions that ASEAN is moving towards (Azis, 2018; Chia & Plummer, 2015), myths and realities of ASEAN (Das, 2015) and ASEAN blueprint and effectiveness assessment (Briones et al., 2012).

1.1.2.2 Prior study on opportunities of AEC

The emergence of AEC contributes the following prospective opportunities to the region comprises these aspects: worker mobility (Te et al., 2018; Batalova et al., 2017), free flow of skilled labor in ASEAN community (Luz, 2014; Huelser & Heal, 2014; Yue, 2013), increase in investment climate (Bhaskaran, 2013), commercial policy (Hill & Menon, 2014), business systems (Lim, 2017), marketing business (Verhezen et al., 2016), international business (Cavusgil et al., 2014), and investment integration (Rivera et al., 2013).

1.1.2.3 Prior study on challenges of AEC

Investigations on challenges includes these issues: past successes and future challenges (Hui & Kiesha, 2016), remaining challenges (Menon & Melendez, 2017), challenges within a changing context (Rhein, 2017; Austria, 2013), labor market prospects and challenges (Hoàng, 2013), conflicts of interest (Yean & Das, 2015), the challenge of innovation-micro view (Abonyi, 2012; Onyusheva et al., 2018), opportunities, challenges and implications of ASEAN (Rana & Ardichvili, 2014), struggling with Southeast Asia's regional corporatism (Rüland, 2016), and challenges of regional integration for the internationalization (Moussa & Kanwara, 2015).

1.1.2.4 Prior study on factors contributing to AEC

Studies on key factors contributing to the success of AEC consisting of achieving the promise of the ASEAN economic community (Wallar, 2014), human development index (Bangun, 2014), achieving skill mobility (Papademetriou et al., 2016), achieving skill verification by the means of professional certification examination (Pyakurel, 2014), capacity-building (Aldaba & Aldaba, 2013), English as a key effect (Kirkpatrick & Bui, 2016; Crocco & Bunwirat, 2014), communication and

approach in ASEAN study (Pelkmans, 2016), and improving conditions of employment and reducing inequality (Cripps & Khurasee, 2016).

1.1.2.5 Prior study on future of AEC

Some studies provide ideas and suggestions in preparation for the future of ASEAN economic community (Das, 2015), the future direction of ASEAN community and economic integration (Ishikawa, 2012), and how individual member countries deal with economic integration successfully such as Malaysia (Das & Onn, 2014), Thailand (Thanosawan, 2017; Nguyen, 2014), Cambodia (Vicheth, 2012), Myanmar (Thuzar, 2012), Lao PDR (Leebouapao & Lao, 2014), and Singapore (Toh, 2014).

1.1.2.6 Prior study on education as a key driver for AEC and human capital development

As education is central to the national and regional development agenda, it has enormous impacts on economic development and is, in turn, influenced by economic development. Analysis and scrutiny of significant details of the issues and case studies regarding the impacts of AEC on education and how to execute business of education in order to drive economic transformation of the region. Investigations include the current trends and effects on education policy and practice (Grapragasem et al., 2014), the role of education to strengthen human capital development and R&D capacity in ASEAN (Tullao & Cabuay, 2015), education structure and implications of the 2015 ASEAN economic community (Vicheth, 2012), the effects of ASEAN policy on education and job market (Pyakurel, 2014), and the impact of ASEAN economic integration on education policy and plan (Kamolpun, 2015).

1.1.3 Education as a key driver for human capital development and AEC

Education has long been considered as a key driver for human capital development in all areas which increasingly plays a vital role in developments, especially economic development at all levels, as so called “glonacal,” a term illustrating the nexus among global, national and local. At the same time, education and economic development are closely related because education is determined by economic transformation of the region. In the past, education in this region was primarily gearing towards a humanistic view; however, due to the influence of global economy and development, education in this region has increasingly evolved to an

economic view and education is considered as a prime mover of global economic prosperity.

At a regional level, education is considered by all ASEAN governments as a key driver of the region's economic prosperity so they put high investment in education and human capital development. The investment has considerably contributed to the economic progress in this region. Still, the goal of one economic community has a long way to go. Obviously, Singapore outstands the rest in all areas, especially economy and education and has already integrated into the global economy. In details, there has been significant progress in some countries (e.g. Malaysia, Thailand, Indonesia, and Brunei) while progress in other countries (e.g. Myanmar, Cambodia and Laos PDR) still lag behind mediocre progress in some countries (e.g. Philippines and Vietnam).

However, the economic progress in this region keeps changing all the time due to numerous factors and this made economic integration a complex process and has a long way to go. Still, there are numerous crucial disparities in details among all the ten members. Take Thailand as a classic example. Thailand was considered as the fifth tiger of Asia in the past decades and second only to Singapore. Despite high investment in education among ASEAN countries and at the same level of Singapore's investment in education, economy and education in Thailand evidently lags behind Singapore in all rankings. Due to political instability, Thailand's pace of progress has been slowed down and lagged behind neighboring countries like Malaysia, now considered second only to Singapore. Currently, the economic investment in Indonesia and Vietnam have increased considerably and their economic progress has been fast growing, despite lower rate of education investment than Thailand.

What has happened in Thailand clearly indicates that the myths and realities of these member countries need to be investigated insightfully as the regional economic integration itself is a complex process which is mainly influenced by the complex process of education and human capital development. Such multi-facet complexity of economic and education progress among the countries that could be potential impediment to the whole region therefore calls for an investigation that can lead to insightful realities of the impacts of the regional economic integration on education business is therefore well-worth investigating to gain insights of current progress, prospective opportunities, potential challenges, and key milestones to achieve the goal

of AEC, especially from the post-2015 when the vision of the single market was fully inaugurated to 2030 when the whole region will evolve into the era of sustainable development and the global economy.

1.1.4 Statement of the problem

The notion that “no pains, no gains” can best explain the economic transformation of this region. The pathway to the single market unavoidably has positive and negative impacts on the ten member countries. It is therefore necessary to understand the impacts of the regional economic transformation on the education business in all member countries, particularly on how education in each country can contribute to its economic prosperity and, in turn, how education in each country is affected by the regional economic goal, especially the impacts of key elements for ASEAN education cooperation in the post-2015.

To achieve the goal of economic integration, the ASEAN governments initiates education cooperation as a prime mover of progress and the key elements for the initiated education cooperation in the post-2015 marked as the inauguration of the single market as adopted by the ASEAN Minister’s Meeting on Education in 2015 consist of: 1) promoting ASEAN awareness through strengthening of Southeast Asian history and indigenous knowledge; 2) enhancing the quality and access to basic education for all; 3) strengthening the use of information and communication technology (ICT); 4) supporting the development of the Technical and Vocational Education and Training (TVET) sector as well as lifelong learning in the region; 5) complementing the efforts of other sectors in meeting the objectives of Education for Sustainable Development; 6) strengthening the higher education sector through the implementation of robust quality assurance mechanisms; 7) fostering the role of higher education in the area of socio-economic development through university-industry partnership; and 8) providing capacity-building programs for teachers, academics and other key stakeholders in the education community.

These eight key elements must have had enormous positive and negative impacts on each country and the whole region. Insights of the impacts are therefore integral to economic transformation. To transform economy to higher levels (from national to regional, international or global), human capital development is a key driver and can be made through the process of education which requires high investment for

the production of skilled technicians, engineers, and professionals for propelling economic prosperity. Such production could be accomplished through sophisticated types of education such as R&D, technology, and innovation. Sophisticated education therefore becomes a promising business for each member country and the whole region as the most essential key driver to economic prosperity of the nation and the region. Insights of the impacts are imperative basis for achieving the regional economic transformation.

Collectively, built upon the aforementioned prior study, this present study, entitled “Impact of AEC on Education Business in ASEAN Countries: A Cross-National Comparative Analysis,” which were methodologically based on a cross-national comparative educational analysis of the impacts of ASEAN and education business in member countries and the nexus of all countries eminently shed light and insightful illuminations of the existing entity of knowledge which successfully led to creation of a more harmonized ASEAN community in the post 2015 to 2030. The entity of knowledge empowered stronger cooperation among the member countries as one economic community.

1.1.5 Research questions

Education can be prospective opportunities and potential challenges of the economic integration as such sophisticated types of education demand high investment. Not all ten countries can afford such high investment due to disparities of economic prosperity within the region. Therefore, the economy of education or the ten ASEAN member countries could be broadly classified into three groups: highly developed nations (Singapore, Malaysia, and Brunei), middle income countries (Thailand, Indonesia and Philippines) and those just emerging (Vietnam, Myanmar, Lao PDR and Cambodia). But the ASEAN continues to grow to achieve the goal of a single market where no one gets left behind. It is necessary to analyze the impacts of the goal on the economy of education in order to understand the economic transformation in this region. Three research questions were raised so as to guide and frame this analysis, including:

1.1.5.1 What are the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community?

1.1.5.2 What is the synthesis of significant insights, initiatives, and lessons gleaned from the best practices in education business across countries?

1.1.5.3 What are the keystones for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries in this changing context?

To answer these research questions, the purposes of this analysis were determined as seen in the next part.

1.2 Purposes of the Study

This present study primarily explored the impacts of AEC on education business in ASEAN countries. In response to the aforementioned research questions, three specific purposes of the study were determined as a guideline and framework of the analysis as follows:

1.2.1 To analyze the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community;

1.2.2 To synthesize significant insights, initiatives, and lessons gleaned from the best practices in education business across countries;

1.2.3 To highlight the keystones for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries in this changing context.

1.3 Research Method

A literature review of a prominent feature of the successful educational transformation across the region and the globe indicates that education reform efforts in order to cope with national, regional and global transformation especially in this disruptive world are guided by a clear goal or vision and implemented through a coherent planning, management and monitoring process. This study would therefore review, understand, interpret and make sense of primary and secondary sources of documents and texts. In an attempt to draw insights of meaning lying beneath the texts,

this study went through comparative perspectives to include lessons, best practices and feasible multimodality across the countries, the regions and the globe into the focus of the analysis.

1.3.1 Research design

The design of this study would be based on qualitative, cross-national, interpretive analysis of documents relation to the focus of the study. This analysis aimed to draw a set of conclusions as reflections for education policy makers and practitioners in areas where policy dialogue and reform is critical for improving education performance for further discussions on possible areas and practical approaches to feasibly policy reform to serve the needs of the people in the country and the region and to prepare for the sustainable future of ASEAN. Cross-national comparative analysis, which was a qualitative research method, best fits for the aim and the purposes of the study as indicated in purposes of the study and was therefore purposefully selected for this interpretive investigation.

1.3.2 Rationale for cross-national analysis

Cross-national comparative analysis was purposefully selected for these theoretically, methodologically, practically inseparable and intertwining contributions as detailed below.

Theoretically, cross-national comparative analysis is a qualitative research method that seeks to explore socio-economic, political and cultural phenomena across nations and regions with the aim to identify similarities and differences of selected issues that will enable lessons to be drawn in determining best practices (Kubow & Fossum, 2007; Hantrais, 1999). In brief, cross-national comparative research is an interpretive research method that helped this present analysis be capable of identifying best practices and providing a basis for good education business practices for ASEAN member countries.

Methodologically, by comparison, the analysis reached a greater scope of in-depth understanding regarding the impacts of AEC on the member countries and more profound insights and diverse perspectives of why education business performs better in one country than in another. At the same time, the insights drawn from the comparisons also provided solid evidence and practical lessons to help improve education performances and systems. The lessons and best practices could also be

drawn from high performing education business in other regions in Asia (e.g. Japan, China and the Republic of Korea), in the west (e.g. the Scandinavian and North America) and other regions (e.g. EU, the Middle East and South Africa). To help inform this reflection, it was important to examine the regional and national policies in ASEAN education systems, the ways in which they interact and impact upon system performance and other underlying factors that may strengthen potentials or pose challenges to the established policies.

Practically, numerous prior research (such as Vos & Brits, 1990; Kubow & Fossum, 2007; Chaube & Chaube, 1993; Kelly, Altbach & Arnove, 1982; Cohen, 1990; Wolhuter, 2007) therefore agreed to the usefulness of this methodological approach for improving and reforming education and training systems of a country or region. Myriad countries therefore advocate economic and education policies and practices based on international and global experience and research outcomes (Guo & Lamb, 2010) as an effective means to ascertain experiences of policies and practices in other countries. This could be done through cross-national comparative study (Hantrais, 1999; Kubow & Fossum, 2007) because the main focus in a cross-national comparative study was on the system of education in various countries (Kubow & Fossum, 2007), with a specific focus on identifying the strengths and weaknesses of the systems and comparing the systems (Vos & Brits, 1990). This identification was an indispensable basis for identifying best practices (Kubow & Fossum, 2007; Lauglo, 2006) and establishing an integral framework for educational reform and development (Arnove, 1982). In short, cross-national comparative study offered multiple practical advantages for the education business transformation of ASEAN region.

1.3.3 Data collection

As this study employed a qualitative, interpretive and cross-national comparative research, the data were compiled through analysis of documents (e.g., reports, research studies and texts) and employed a simple data documentary approach to data collection and analysis. A review of each issue or area was briefly introduced and compared. A description of the issue or area under analysis is presented. As this study focused on analysis and comparison of education business policies of the ASEAN countries and data elicitation for the study were collected through document analysis, this study required direct involvement of the researcher in data collection and thereby

makes the researcher an instrument for both data collection and analysis (Kaplan & Maxwell, 2005). Substantial conclusions were drawn from the comparative analysis of the issue or area within the region or across the globe in relation to the focus of analysis.

1.3.4 Data analysis

Data analysis process in qualitative analysis involved coding, grouping, categorization and abstraction (Elo & Kyngäs, 2008). Similarly, according to Remler and Van Ryzin (2011), the coding system dealt with labelling, organizing and categorizing data. Similarly, Weitzman (2000) referred coding to the process of labelling parts of text. In this present study, coding system involved identifying and grouping parts of data in the text that shared the same meaning or explained the same concept.

Data analysis in this study borrowed from the above process but was applied for the specific purposes of the study. Data analysis process in this study followed these five steps: 1) gathering data, 2) organizing data item, 3) coding, 4) recording, and 5) categorizing categorization and abstraction. (See more details in chapter 3 methodology.)

1.3.5 Reliability and validity

To check the reliability and validity, this study designated to ensure every step of the research process, from the outset till the analysis as detailed below. Choice of documents were chiefly based on primary sources while secondary sources were used as supports, clarifications and extensions. The official and formal secondary sources were preferred. Terms were meaningfully defined and operational definitions or nodes were concretely and precisely detailed. Coding process were systematically planned. Data were coded and recorded in order to compare the results of coding. The coded and recoded data from other three experts were compared based on triangulation. All these aims to construct reliability and validity check.

1.4 Scope and Framework of the Study

1.4.1 Scope of the study

The scope of analysis limited to the impacts of AEC on tertiary or higher education business in ASEAN countries from the inauguration of AEC in 2015 to the

prospective integration of AEC to the global economy in 2030. The level was specifically chosen as a focus of the analysis as it is a key driver to quality education for human capital developments that could produce sophisticated types of education (namely R&D, technology, innovation and ICT) and professionals (namely digital specialists, skilled technicians, engineers, and scientists) that were the keystones for the regional economic transformation.

1.4.2 Framework of the study

The framework of this study was composed of the three components: AEC four pillars, the eight key elements of AEC and impacts on education business. The structure and relationship of the three components could be shown in Figure 1 as follows:

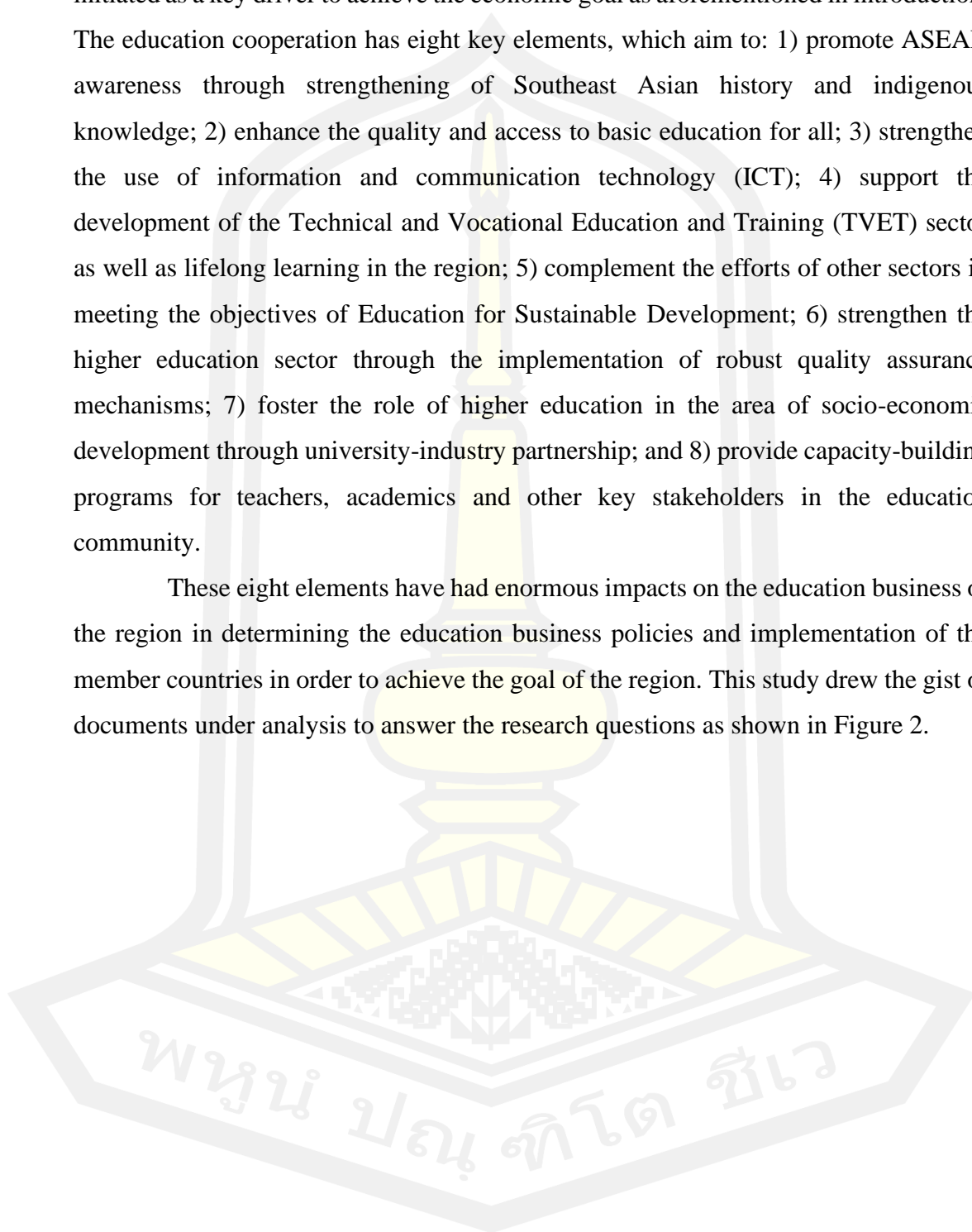


Figure 1 Framework of the study

Figure 1 illustrates the framework of this study, consisting of the following three components: AEC four pillars, the eight key elements of AEC and impacts on education business. AEC four pillars are the core elements of economic integration. The first pillar is single market and production base. Free flow of goods, free flow of services, free flow of investment, freer flow of capital, free flow of skilled labor, priority integration sectors, and food, agriculture, and forestry are the major concerns in this pillar. The second pillar is competitive economic region. Competition policy, consumer protection, intellectual property rights, infrastructure development, taxation and e-commerce are the main focus of this pillar. The third pillar is equitable economic development which deals with SME development and initiative for ASEAN integration. The fourth and last pillar is integration into global economy which includes coherent approach toward external economic relations and enhanced participation in global supply networks.

In an attempt to support the above four pillars, the education Cooperation Was initiated as a key driver to achieve the economic goal as aforementioned in introduction. The education cooperation has eight key elements, which aim to: 1) promote ASEAN awareness through strengthening of Southeast Asian history and indigenous knowledge; 2) enhance the quality and access to basic education for all; 3) strengthen the use of information and communication technology (ICT); 4) support the development of the Technical and Vocational Education and Training (TVET) sector as well as lifelong learning in the region; 5) complement the efforts of other sectors in meeting the objectives of Education for Sustainable Development; 6) strengthen the higher education sector through the implementation of robust quality assurance mechanisms; 7) foster the role of higher education in the area of socio-economic development through university-industry partnership; and 8) provide capacity-building programs for teachers, academics and other key stakeholders in the education community.

These eight elements have had enormous impacts on the education business of the region in determining the education business policies and implementation of the member countries in order to achieve the goal of the region. This study drew the gist of documents under analysis to answer the research questions as shown in Figure 2.



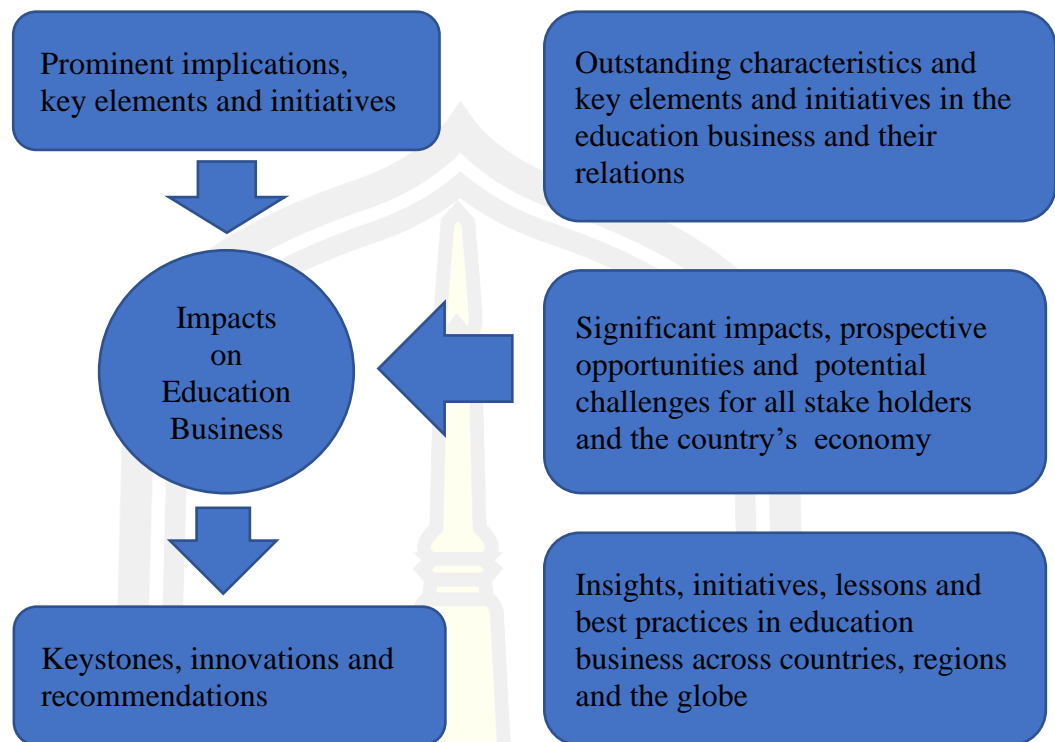


Figure 2 Impacts of ASEAN’s engagement on business education and descriptors of the impact

Figure 2 illustrates the impacts of ASEAN’s engagement on business education and descriptors of the impacts. The descriptors are drawn from the purposes of the study, including: 1) prominent implications, key elements and initiatives, 2) outstanding characteristics and relationship with the regional cross-national comparative analyses of selected key issues, 3) significant impacts, prospective opportunities and potential challenges for all stake holders and the country’s economy, and 4) insights, initiatives, lessons and the best practices in education business across countries, regions and the globe. All these aims to provide key milestones, innovations and recommendations for the promising future of education business in this region. (See more complete details of all aforementioned research methods in Chapter 3 Methodology.)

1.5 Definition of Terms

Important terms in this study are related to the topics of the research study and research methodology and are defined here in this study as follow:

1.5.1 Impact in general refers to powerful effects ASEAN's engagement with education towards achieving AEC has had on education business in the ten ASEAN member countries. The impacts can be positive or negative. More specifically, the impacts are considered in terms of prospective opportunities and potential challenges of the key elements and initiatives of the ASEAN's engagement with education towards achieving AEC for all stakeholders in the education community and the country's economy.

As the impact is the core term in this study, it is spelled out into operationalized definitions to make this abstract term more concrete in order to direct the analysis in this study. Below are the terms centering the impact as well as the definition of each term as follow:

1.5.1.1 Prominent implications refer to something remarkable that is likely to happen as a result of ASEAN's engagement with education such as educational cooperation and job mobility.

1.5.1.2 Key elements refer to the most noticeable parts or features of ASEAN's engagement with education revealed in official documents.

1.5.1.3 Key initiatives refer to specific projects or programs undertaken by ASEAN entity to achieve specific objectives as part of economic integration in the short-term or long-term such as policy, action plan, and strategy.

1.5.1.4 Outstanding characteristics refer to distinctive features, attributes and qualities of the specific plan, projects or programs undertaken to achieve a particular purpose as part of economic integration.

1.5.1.5 Relationship refers to the way or direction that countries, policies, actions or issues are connected at institution, local, national, regional, international and global levels.

1.5.1.6 Selected key issues refer to conspicuous ideas, concepts, and problems that are purposefully chosen for being discussed or taken into consideration as crucial to success of specific objectives.

1.5.1.7 Significant impacts refer to potential influences that have powerful effects on the success of specific objectives.

1.5.1.8 Prospective opportunities refer to essential possibilities, benefits, advantages, usefulness, efforts, situations and something that substantially enhance and facilitate the success of specific objectives.

1.5.1.9 Potential challenges refer to obstacles, efforts, situations, and Something that powerfully impede the success of specific objectives as part of economic integration or that need great effort in order to be done successfully.

1.5.1.10 Insights refer to a clear, profound, and sometimes immediate under-standing of complexity, complications, and changes.

1.5.1.11 Initiatives refers to new plans, processes or policies to achieve something created by a member country or organization.

1.5.1.12 Lessons refer to an experience or experiences from similar or different situations that make a better future.

1.5.1.13 Best practices refer to successful models, useful treatments, or a set of working methods that is officially accepted as being the best to formally use in a particular business or industry, usually described in detail for practical application.

1.5.1.14 Keystones refer to the most important parts of an idea, plan, or essence on which everything else depends.

1.5.1.15 Innovations refer to new ideas, strategies, methods, designs, products, and actions, or the use of new ideas, strategies, methods, designs, products, and actions.

1.5.1.16 Recommendations refer to conspicuous ideas, advice, suggestions of strategies, actions, plans, and policies that are effective for achieving objectives or goals for the promising future of education business in this region.

1.5.2 Education business refers to the practices of business and economy in the education area. Education as a service business which requires investment as a necessary, a critically necessary, factor for quality education which is the essence of human capital development in order to achieve the goal of AEC. Without investment, no quality education can be achieved.

1.5.3 Cross-national comparative analysis refers to a qualitative research method that compares the same, similar or related critical issues necessary for quality

education business across the ten countries in ASEAN as a result of the emergent AEC's vision of single market. Similar ASEAN issues may also be compared across the globe for a wider perspective.

1.5.4 Vision refers to the ability to think, plan and act with wisdom and feasibility to achieve the desired vision. It is also referred as a goal and desire to be reached for a better future.

1.5.5 Coding is an act of systematic processing data or text (Elo and Kyngäs, 2008) which includes these steps: 1) organizing data for coding and gathering sections of the data at a single point that explains the same, similar or related idea, concept or phenomenon, 2) coding and recoding every element of a data item (Seale, 2002), 3) grouping and arranging the codes under appropriate nodes, and 4) categorizing, reasoning, conceptualizing and summarizing the same, similar or related codes, abstraction, concept or phenomenon (Basit, 2003).

1.5.6 A code refers to a system of data to convey a meaningful message.

1.5.7 A node refers to a container or place for keeping categories, concepts or codes. Concepts, ideas, people and places are represented by nodes (Richards, 1999).

More specifically, nodes in this study refer to ideas, concepts, characteristics, quality, insights, initiatives and other abstraction. All nodes regarding impact which is the core definition of this study are already defined above.

1.6 Delimitations of the Study

There were some constraints in the compiling of this comparative analysis included a lack of reliable data as well as somewhat inconsistent and incomparable data from across various sources, mostly secondary ones.

To solve these problems, this analysis had substantially relied on primary documents available from international development organizations as well as internationally comparable and official government data sources wherever possible.

In some cases, however, the data available, particularly from secondary and online sources, was different from data provided by government sources. In such cases, internationally comparable data had been applied, complemented or verified by findings from reliable data bases (e.g. google scholar, development banks, academic

and UN data sources) that had also been applied extensively in order to provide a triangulated analysis of the issues.

In addition, not all ten ASEAN member countries were always included in the analysis of particular issues. Only countries with relevant data on the issues had been included in the tables and figures throughout this report.

1.7 Significance of the Study

Upon the completion of this study, the study gained the following significances:

1.7.1 Illustration of the prominent economic implications, key elements and initiatives of ASEAN's engagement with education towards the goal of AEC and its nexus to the regional and global developments,

1.7.2 Outline of the outstanding characteristics of the key elements and initiatives in the educational business of member countries and their relationship with the regional developments as drawn from cross-national comparative analyses of selected key issues,

1.7.3 Insights of the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community and the country's national economy in the nexus among national, regional and global developments,

1.7.4 Synthesis of significant insights, initiatives, and lessons gleaned from the best practices in education business across countries, regions and the globe,

1.7.5 Keystones for the future of education business in this region and recommendations for innovative policy and practices on education business for less developed member countries in this changing context in relation to the education developments reflected in relation to wider regional and global contextual trajectories, especially in this disruptive era

1.8 Outline and Organization of the Dissertation Report

This dissertation report comprises five chapters and be organized as follow:

Chapter 1 Introduction illustrates the rationale for the study to provide an overview of the topic of the research study, background of the study and information necessary for understanding the topic to be studied such as key areas of prior research relating to issues of the topic (namely progress and future direction of AEC, opportunities and challenges of AEC, factors contributing to AEC, future of AEC, and education as a key driver for AEC and human capital development) and directing to the role of education as a key driver for human capital development and AEC which was the key area of this analysis. All these led to pinpoint statement of the problem and research questions. Purposes of the study were then addressed. Research method in brief was also incorporated to give overview of the research methods in details in chapter 3 methodology. The overview included research design, rationale for cross-national analysis, data collection, data analysis, and reliability and validity. Important topics such as scope and framework of the study, definition of terms, and delimitations of the study, significance of the study were also included. The chapter ended with an outline and organization of the dissertation report.

Chapter 2 Literature Review accounts a brief history of ASEAN, its development into AEC, the progress of AEC in the post 2015 and the future direction from now till 2030 to provide all essential background for understanding the focus of the study. Then, following was prior study progress of AEC integration, impediments to AEC integration, education contribution to ASEAN economic integration, and cross-national comparative analysis and insights to the impacts of policy. Then, topics leading to the focus of the analysis (including overview of ASEAN goal on education, ASEAN's engagement to education, progress with the ASEAN 5-year work plan on education 2011-2015 and 2016 – 2020, complementarities of priorities between sustainable development goals 2030 and education 2030, Sustainable Development Goals (SDG) on education and targets, and prior study on human capital development and sustainable development) were discussed. Then, implications of the literature review were briefly summarized. Lastly, the chapter concluded with conceptual

framework of the study which highlighted major components and their relationship to guide the analysis.

Chapter 3 Methodology provides an account of research method, consisting of: research design, rationale for the research design, including: a cross-national comparative analysis, comparative education methodology, choice of documents under analysis and instrument for data elicitation. The account also illustrates data collection process and coding system consisting of these topics: data collection process, scope of data collection, coding system as well as nodes, codes and descriptors. Data analysis describes how data is analyzed through the relationship between the research questions and nodes, codes and descriptors. Reliability and validity check comprise reliability and validity check of sources, terms and coding process. The chapter concludes with research framework.

Chapter 4 Results and Discussion includes the results and discussions of the study. On one part, the results of the study comprise three issues: 1) significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC; 2) synthesis of insights, initiatives, and lessons gleaned from the best practices in education business across countries; 3) keystones and recommendations for innovative policy and practices on strategic management for HE in the region. On the other part, the discussions of the research findings were addressed in relation to the prior study presented in the literature review.

Chapter 5 Conclusion comprises a brief summary of the overall research components, conclusions of the study in response to each research questions and the purposes of the study, implications of the study, limitations of the study, and theoretical and practical suggestions for policy implementation and future study.

1.9 Conclusion of the Chapter

This chapter introduces all essential information for understanding the overview of the study. In addition, this provides essential background to other five successive chapters: literature review and conceptual framework of the study, research methodology, the results of the study and discussions, and conclusion of the study respectively. The next chapter reviews related literature, overview of historical

background of ASEAN, and prior study regarding the issues in the research questions. All these leads to a conceptual framework of the study as displayed in Chapter 2 Literature Review.



CHAPTER 2

Literature Review

2.1 Introduction

Creating the single market is a highly complex process and has made enormous impacts on multidimensional aspects of ten member countries, this study will comparatively analyze the impact of ASEAN economic policy on education business in ASEAN countries. To do so, five specific purposes are raised as a guiding framework of this analysis, consisting of: 1) analyzing the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community and the country's national economy in the nexus among national, regional and global developments; 2) synthesizing significant insights, initiatives, and lessons gleaned from the best practices in education business across countries, regions and the globe; and 3) highlighting the key milestones for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries in this changing context in relation to the education developments reflected in relation to wider regional contextual trajectories, especially in this disruptive era.

To understand this complex process, the chapter therefore provides all essential background for understanding the focus of the analysis which is represented by a conceptual framework. To begin with, a brief history of ASEAN economic integration at the outset of the regional cooperation in the 1980s-1990s, its development into AEC when the establishment of AEC was inaugurated in 2015, the progress of AEC in the post 2015 and the future direction from now till 2030 is concisely presented. Then, overview of relevant prior research which is the milestone of the analysis and relevant prior research is illustrated. The literature review, prior study and related theories altogether are summarized to pinpoint the implications of literature review. This chapter finally concluded with the conceptual framework for the study based on the forementioned background.

2.2 A Brief History of ASEAN Economic Integration

Economic integration in ASEAN, as elsewhere, has a long history and this overview provides a brief history of integration in this region to understand how it has developed into the present position. This understanding possesses essential milestones for the cooperation, especially factors that has pushed and impeded ASEAN economic integration and its future direction.

2.2.1 ASEAN economic integration before 1980s

The regional cooperation of ASEAN was initiated by regional and global geopolitical factors. Two major factors were territorial disputes among several Southeast Asian countries and the Cold War in the 1960s and 1970s. The territorial disputes created a desire for regional peace and security while the Cold War was an attempt to fight against communism which was formed by the ASEAN founding market economies (Indonesia, Malaysia, Philippines, Singapore, and Thailand) and later joined by Brunei after gaining political independence, and Cambodia, Lao PDR, Myanmar and Viet Nam after the Cold War ended. In brief, the regional cooperation in this region was initiated for political security objectives.

After the Cold War, all member states loosely united under the so-called “ASEAN Way,” which all stated abided to the policy of non-intervention in domestic affairs. The most crucial impediment to the initial cooperation and integration in this region was its economic diversity, especially in population size, level of economic development and per capita income, and openness to international trade and investment. This diversity led to differing perceptions of benefits and costs of economic integration among the member states with Indonesia and Singapore as the most different ones.

However, a rapidly globalizing world put pressures on this region to be economically competitive. This pressure forced ASEAN countries to look outward and adopt directions of the global development. This adoption meant economic reforms in this region and thus the idea of regional economic integration began its journey by the end of the 1980s. It could be concluded that the global external pressures led ASEAN to regional economic integration.

2.2.2 ASEAN economic integration in the 1980s-1990s

Since the late 1980s when ASEAN began its journey of economic integration, it has been pressured to compete effectively for global markets and investments. The pressures from external competition have led the members closer and more united. The region has moved toward economic reforms in order to enable the region to compete more effectively for global markets and investments.

Major economic reforms included the reorganization of the General Agreement on Trade and Tariffs (GATT) into the World Trade Organization (WTO), which enabled this region to overcome the threats to market access and FDI from the emerging European Single Market and the North American Free Trade Area (NAFTA). In addition, the huge market size of 360 million attracts investments to this ASEAN region which later led to the establishment of AFTA, AFAS, and AIA in the 1990s. To be more precise, ASEAN economic integration was driven by the global market pressures.

2.2.3 ASEAN market-driven economic integration in 1990s

The establishment of AFTA, AFAS, and AIA in the 1990s which was pressure by the attempt of ASEAN to compete in the global market. This made ASEAN economic integration become global market-driven since then. Following the global trends, ASEAN initiated a number of economic schemes to increase its competitiveness through production networks. To illustrate, AFTA was then complemented by the 1995 and the ASEAN Industrial Cooperation (AICO) scheme was initiated to promote joint manufacturing between ASEAN-based companies. These were some of the attempts to increase its economic competitiveness through production networks. The most vital one was the establishment of ASEAN Economic Community (AEC) in 2015.

2.2.4 The AEC blueprint by 2015

AEC which was inaugurated in 2015 formally marked its full regional economic community. To realize this integration, the AEC blueprint was initiated as a guideline for the member states for driving economic integration of the region. The four core elements include: 1) single market and production base, 2) competitive economic region, 3) equitable economic development, and 4) integration into global economy. To realize the AEC objectives, the blueprint was implemented and the progress has been monitored.

The four core elements which aim to AEC with equitable economic development include goods sector liberalization, services sector liberalization, investment liberalization, facilitation, and protection and mobility of ASEAN skilled professionals. In details, first, the single market and production base includes free flow of goods, free flow of services, free flow of investment, freer flow of capital, free flow of skilled labor, priority integration sectors, and food, agriculture, and forestry. Second, competitive economic region deals with competition policy, consumer protection, intellectual property rights, infrastructure development, taxation and e-commerce. Third, equitable economic development comprises SME development and initiative for ASEAN integration. Fourth and lastly, integration into global economy consists coherent approach toward external economic relations and enhanced participation in global supply networks. AEC has progressed and achieved its full integration at end of 2015. Still, it has had a long way to achieve the goal of AEC.

2.2.5 The AEC blueprint beyond 2015

ASEAN is on the move and economic progress is eminent. Crucial issues remain to be fully realized and monitored to achieve a more harmonized and profound economic integration. Major issues to be addressed include an ASEAN customs union, free movement of labor and capital, strengthening the ASEAN Secretariat and ASEAN and the WTO.

2.3 Prior Research on AEC

Literature review and prior study on the issue indicated that a regional economic vision or policy has enormous impacts on a member country's national development policy, especially education policy. Numerous studies have investigated the issues, including progress of AEC integration, impediments to AEC integration, education contribution to ASEAN economic integration, and cross-national comparative analysis and insights to the impacts of policy.

2.3.1 Prior research on progress of AEC integration

To gain insights of this emerging regional integration, prior study investigated the contributions of this integration in various aspects. These include emerging ASEAN community and economic integration (Ishikawa, 2012), the present background of ASEN connectivity (Chia, 2016), regional development (Kobayashi et al., 2017), connectivity to a wider global economic context (Abonyi, 2012), ASEAN integration and beyond (Das, 2015), directions that ASEAN is moving towards (Azis, 2018; Chia & Plummer, 2015), and myths and realities of ASEAN (Das, 2015).

The studies revealed that numerous key elements need to be realized and fulfilled in order to achieve the goal. Physical connectivity, trade and investment integration are some of the key issues that have potential impacts on the economy and business of the region.

On physical connectivity, Chia (2016) examined the importance of physical connectivity to implement the AEC. The study explored the various dimensions of land, maritime, and aviation connectivity with the complex agreements, national policies and regulatory frameworks and challenges of implementation and infrastructure financing, including the Chinese initiative of the One Belt-One Road and the Asian Infrastructure Investment Bank. His study noted crucial issues regarding physical connectivity of ASEAN economic integration. Although the ASEAN Economic Community (AEC) was established at the end of 2015, some of the objectives remain for it to be fully realized, and many of the actions and measures in the AEC Blueprint have not been fully implemented and have to be carried forward to future years. Among these “works in progress” is transport and other physical infrastructure, which is necessary for the physical flows of goods and people. Analysis of free trade and economic integration agreements do not usually place emphasis on the importance of the physical delivery of the goods and people flows made possible by trade and investment liberalizations, particularly in geographically dispersed and diverse regions such as ASEAN (Chia, 2016).

To drive physical connectivity to implement the AEC, investment is one of the most outstanding. Das (2015) investigated trade and investment integration as an essential phase for any regional economic integration progress. He raised the question: Can ASEAN achieve economic community without Custom Union (CU). This study

features Indonesia's private sector opinions on the AEC both from manufacturing and service sector firms. The opinions were obtained from a recent field survey conducted in Indonesia in 2014. It involved around 345 manufacturing and 187 service-sector firms in six big cities in Indonesia. Further, this chapter features an analysis based on a hypothesis that ASEAN can complete its economic community with the role of sub-regional economic cooperation based on infrastructure network cooperation from the study entitled *ASEAN Economic Community: A Work in Progress* edited by Das, Menon, Severino, Shrestha and published in 2013 (Das, 2015).

Prior study on AEC progress included worker mobility (Te et al., 2018; Batalova et al., 2017), and free flow of skilled labor in ASEAN community (Luz, 2014; Huelser & Heal, 2014; Yue, 2013), investment climate (Bhaskaran, 2013), commercial policy (Hill & Menon, 2014), business systems (Lim, 2017), and marketing business (Verhezen et al. 2016) in international business (Cavusgil et al., 2014), the ASEAN economic community through investment integration (Rivera & Lagdameo, 2013), struggling with Southeast Asia's regional corporatism (Rüland, 2016), and implementation of ASEAN blueprint and effectiveness assessment (Briones & Galang, 2012).

ASEAN regional integration, as elsewhere, is a complex process and has a long way to reach its full realization. A long the way, its progress considerably contributes to AEC integration but still there are remaining progress to be realized which appear to be potential impediments to the regional integration.

2.3.2 Prior research on impediments to AEC integration

Some of the studies focus on impediment, barriers to policy implementation, crucial challenges of the ASEAN economic integration. The prior study highlights shortfalls, progress and remaining challenges (Vineles, 2017; Menon & Melendez, 2017), past successes and future challenges (Hui & Kiesha, 2016), challenges within a changing context (Rhein, 2017; Austria, 2013) labor market prospects and challenges (Hoàng, 2013), conflicts of interest (Yean & Das, 2015), the challenge of innovation-micro view (Abonyi, 2012), problems of regional integration (Onyusheva et al., 2018), opportunities, challenges and implications of ASEAN (Rana & Ardichvili 2014) and challenges of regional integration for the internationalization (Moussa & Kanwara, 2015).

According to Menon & Melendez (2017), although ASEAN has come a long way toward realizing its goal, considerable challenges remain. Accommodating AEC accords will not be easy when they require changes to domestic laws or even the national constitution. The flexibility that characterizes ASEAN cooperation, the celebrated “ASEAN way”, may hand member states a convenient pretext for non-compliance. How to enforce the accords remains an issue. If the AEC is to be more than a display of political solidarity, ASEAN must find a way to give the commitments more teeth. The real test for the community, therefore, will lie in the years ahead (Menon & Melendez, 2017)

More specifically, liberalization which is the one of the most contributing benefits to AEC integration but still has remaining challenges that impede its progress. In the study of Vineles (2017) that analyzed the impact of trade liberalization by focusing on twelve priority industrial sectors in the ASEAN-5 (Singapore, Thailand, Indonesia, Malaysia and the Philippines). The General Equilibrium Model based on Multi-country Input Output Data as provided by the GTAP is used to measure potential economic benefits of reducing tariffs on output, trade balance, welfare gain, and competitiveness. This study compared the outcome of the CGE approach with the Cost Benefit Analysis (CBA) based on the Analytical Hierarchy Process (AHP). The results show that the outcomes of the CGE Model does not match those suggested by the AHP. Interestingly, the findings of this study support those of Falianty (2005), Achsani and Partisiwi (2010), suggesting that taking non-economic but relevant factors from public opinion into account affects the robustness of CGE studies based purely on economic factors.

Looking into the details of potential impacts on the economy and business of the region and each member country, less information about its present progress in the whole Asian market is known. For example, Verhezen et al. (2016) noted that many scholars and practitioners have anointed the 21st century as the “Asian Century” but it is obvious that an economic shift from the West to the East is underway, having both major economic and socio-political implications China and India are often featured as drivers of this Asian economic renaissance. China and India are the two remaining BRIC countries that still grow at a considerable speed. China is projected to have a growth rate of about 6.5 % over the next several years (lower than the double-digit

growth it experienced at the turn of the century) and India may pick up some steam and hit 7 % for the next years. However, less well-known and less analyzed is the equally remarkable story of the rise of the ASEAN market, which may generate interesting prospects for many multinational companies (MNC) and global investors in the coming years.

Another potential impact on the economy and business of the is the flow of trade, goods, service and investments in this hegemony region. According to the study of Rivera and Lagdameo (2013), there has been a surge of trade flows, foreign direct investments (FDIs), and monetary flows within and into the ASEAN economic block, brought about by the rapid expansion of inter- and intraregional trade in goods, services, and FDIs via trade and investment liberalization policies, preferential trading arrangements, and the creation of production networks. However, in order to attain a higher share of FDIs relative to previous decades, there is a need to advance the state of investment climate facilitation in the region, despite stiff competition from other destinations. Hegemony can be a viable means to facilitate investment integration because of the ability to harmonize investment incentives within the ASEAN region. This paper aims to open the amendment of the ASEAN charter, emphasizing ASEAN centrality and regional cooperation as a topic of discussion, and explore the possibility of Singapore as the regional benchmark for investment integration.

Business in this region has been affected by this economic integration, both macro and micro levels. At the macro level, the study of Hill and Menon (2014) revealed that the ten Southeast Asian economies have had highly diverse experiences with global and regional economic integration. During the colonial era they were more or less connected to the global economy through the metropolitan powers, sometimes on a preferential/discriminatory basis. In the early post-colonial era, only Singapore, Malaysia and Thailand remained “always open”, in the sense defined by Sachs-Warner, and also in Myint’s (1972) typology of outward-looking economies. Indonesia and Burma deliberately chose to disengage from the global economy, while the Philippines adopted a comprehensive import-substituting industrialization strategy. The three Indochinese economies were increasingly engulfed in conflict, and then isolated from the west and from global markets for more than a decade from 1975.

At a micro level, Rüländ (2016) explored the impacts of ASEAN economic integration on micro, small and medium enterprises (MSMEs) in Indonesian context. By the end of 2015 the Association of Southeast Asian Nations (ASEAN) had ushered in a common market, the ASEAN Economic Community (AEC). However, the groups most affected by it – small businesses – were bypassed in the decision-making process. They are the victims of a selectively inclusive state corporatism which member countries have transferred from their domestic political system to the regional level. In this article the researcher argued that the decision to create the AEC was promoted by ASEAN governments together with foreign economic and local corporate interests. This coalition was able to frame the AEC in a way that small businesses perceived it as a win-win scheme. Empirically the article focuses on Indonesia.

Another challenge to the regional economy and business at both macro and micro levels is worker mobility. Te et al. (2018) examined the observed and potential impact of the health-related MRAs on health worker mobility within the region, particularly with regard to qualified doctors and nurses. To explore the available evidence, the authors undertook a narrative literature and document review, consistent with the RAMESES guidelines for qualitative research in international development and policy making in the area of health. Peer-reviewed articles and the grey literature from the period beginning in 2005 were reviewed. This study found that the implementation of health-related MRAs has been slow and complex due to a number of barriers and challenges, such as resistance to the inflow of health professionals by the local workforce, shortcomings in the implementing mechanisms and an individual preference among health professionals for seeking better opportunities outside the region. Despite increasing worker mobility generally within ASEAN through formal and informal mechanisms, the MRAs themselves do not appear yet to have facilitated the freer movement of health workers. To strengthen health worker mobility, the full implementation of the health-related MRAs is essential, requiring support from broader trade and immigration policies and a stronger political commitment. Policy makers in ASEAN Member States will need to manage competing national interests in order to harness support for effective implementation.

More specifically, on the ASEAN jobs which will get enormous impacts from work mobility was also investigated. The research studies on factors contributing to

the success of work mobility and ASEAN economic integration include achieving the promise of the ASEAN economic community (Wallar, 2014), human development index (Bangun, 2014), achieving skill mobility (Papademetriou et al., 2016), capacity-building (Aldaba & Aldaba, 2013), English as a key effect (Kirkpatrick & Bui, 2016; Crocco & Bunwirat, 2014) for communication, and approach in ASEAN study (Pelkmans, 2016) and in improving conditions of employment and reducing inequality (Cripps & Khurasee, 2016).

A key impediment to this economic transformation in this region is the English language which is the official language among the member countries and the means of communication in the region and the global market. To illustrate this, the study of Kirkpatrick and Bui (2016) pinpointed the challenges of this issue through the English language education policy in Asia. His work considers the realities, possibilities, and challenges of English language policies with reference to a wide range of socio-political, economic, and linguistic shifts among Asian countries. It reflects on English language policies in the countries through addressing three dominant aspects: 1) the relationship of the English language spread and the English language ability for educational, economic, cultural and political equity, and the effects on local/indigenous languages; 2) educational challenges of the current English language policies such as teacher education, English learning environment, national curriculums, pedagogies, English proficiency, evaluation; and 3) approaches to improve English education policies (Kirkpatrick & Bui, 2016).

All these impediments could be solved by education as a key driver of human capital development which also a contributing factor, if not the most contributing, that have enormous impacts on ASEAN economic integration.

2.3.3 Prior research on education contribution to ASEAN economic integration

Prior research on one of the most contribution factors is education. Education is central to the national and regional development agenda. It influences economic development and is influenced by education development policy. Investigations of overviews include the current trends and effects on education policy and practice (Grapragasem & Mansor, 2014), the role of education to strengthen human capital

development and R&D capacity in ASEAN (Tullao & Cabuay, 2015), education structure and the implications of the 2015 ASEAN economic community (Vicheth, 2012), the effects of ASEAN policy on education and job market (Pyakurel, 2014), the impact of ASEAN economic integration on education policy and plan (Kamolpun, 2015). Scrutiny of significant details comprise these issues and case studies such as a case study of skill verification by the means of professional certification examination (Pyakurel, 2014).

Prior study revealed the role of education crucial in process of economic development. Tullao and Cabuay (2015) indicated that, initially, investments in training and education produce the necessary technical workers. At higher levels of economic development, the formation of highly skilled technicians, engineers, and professionals are made through advanced levels of education. The accumulation of sophisticated types of human capital is a major factor in creating the research and innovation infrastructure of a mature economy. Looking at the research and development (R&D) capacity of the ASEAN region, this study sees that most countries still have ways to go in order to fully develop their innovative capacity. Engineering, which is a significant source of innovations in a country, needs to have its curriculum revamped to adapt to global competition as well as to cater to the need of countries to innovate. This study recommends the improvement of technical competence of engineering education, the exploration of possible cooperation among engineering schools and professionals, learning from advanced economies on the development of advanced skills, the development of the soft skills of engineering students, and adopting an innovation perspective in the development of a nation (Tullao & Cabuay, 2015).

Issues regarding education involve overviews and significant details in various member countries. On the system of education, Vicheth (2012) aimed to provide an overview of the governance structure of Cambodia's higher education system and the implications of this structural design for all stakeholders and the country's economy. It also examines the significance of the 2015 ASEAN Economic Community for Cambodia's higher education system. This paper draws on some of the data and the insights gained from a series of interviews conducted during the first half of 2012 for a study on the governance of Cambodia's higher education system (Sen & Ros 2013 forthcoming). The interviews were conducted with high-level policy makers in

government ministries/departments, representatives from development partners, scholars and researchers, senior national and international education consultants, and the private sector. The paper also builds on research reports, policy documents and other publicly accessible information (Vicheth, 2012).

On education trends, Grapragasem et al. (2014) explored current trends in Malaysian Higher Education and the effect on Education policy and practice. Malaysia has evolved from a production-based to knowledge-based economy in order to stay relevant and compete in the global marketplace. Thus, the purpose of this article is to discuss current trends in Malaysian higher education and how these affect education policies and practices. Four main trends are discussed in this study: Globalization, Teaching and Learning, Governance, and the Knowledge-Based Society. These are followed by four elements that affect education policy and practices: employability, quality assurance, academia, and English Language competency. The transformation that has taken place will surely contribute to the success of Malaysia's Vision 2020 policy of becoming a fully developed nation in the near future (Grapragasem et al., 2014).

In details, education sectors' attitude towards this regional economic integration is also taken Kamolpun (2015) investigated how the Thai higher education sector perceives the impacts and responses to the ASEAN economic integration. The cross-sectional data comparison was used to identify the pattern of the administrators' perceptions and policies. The comparison was based on the four types of higher education institutions and Office of the Higher Education Commission. Based on the EU and the Bologna Process experience, higher education is an integral part of regional political, economic, and social development. In a case of ASEAN, higher education was included in the integration process as a part of trade in services liberalization and a supporting sector to the regional development. Participants responded to an anonymous survey which asked how their institutions perceive and prepare for the potential impacts of the integration. The follow-up oral interviews and document reviews were conducted to seek additional data. The results exhibited that all types of institutions shared similar interests and concerns. However, each type of institution had different priorities and preparation. The result also demonstrated that every type of

institution was facing similar challenges in the policy process, including policy clarity, government regulations, and budget inadequacy.

2.3.4 Prior research on cross-national comparative analysis and insights to the impacts of policy

It is necessarily to pinpoint that the literature review of prior study indicated that the majority of studies on this issue are limited to an investigation on the impact of a regional economic policy on a member country or a few more. Example can be seen from studies providing ideas and suggestions in preparation for the future of ASEAN economic community (Das, 2015) by individual member countries such as Malaysia (Das & Onn, 2014), Thailand (Thanosawan, 2017; Nguyen, 2014), Cambodia (Vicheth, 2012), Myanmar (Thuzar, 2012), Lao PDR (Leebouapao & Lao, 2014), Singapore (Toh, 2014).

A study that leads to a comprehensive overview of the impact is scanty and intentionally ignored due to the fact that such a study is more complex. In addition, almost all of the studies, reports and documents on this issue were not systematically analyzed and synthesized so that policy-makers at local, national and regional levels holistically see the values of the findings. To provide insights to the values of those existing documents and provide a comprehensive overview of the issue to those who get involved in providing quality education that fits for the global, regional and national development to drive their country to its goal, a qualitative, cross-national, comparative analysis of documents was therefore purposefully chosen as a research method of study instead.

Although there are numerous studies as mentioned above, it is noted that the studies are limited to selected issues (Cabauatan & Manalo, 2018), cross-border partnerships (Lek, 2014; Sakamoto & Chapman, 2012), ASEAN and other communities (e.g. Thu & Anh, 2013) and ASEAN in relation with other countries such as China (Rui, 2012), which could not adequately provide overall insightful understanding of the regional developments. A comparative analysis of the member countries within the ASEAN region is overlooked despite of insightful overview.

This present study therefore highlighted cross-national comparative analysis, with a focus on the impacts of ASEAN economic policy on education business in member countries. Education was the focus in this study as it was increasingly seen by

ASEAN governments as a key contributor to national and regional wealth and economic development.

There are cross-national comparative studies on education in ASEAN. For example, the study of Cabautan and Manalo (2018) compared the contribution of education to GDP from the 10 ASEAN member countries, with a focus on the expenditure in education and the number of enrollees in the ASEAN in order to: 1) determine their position regarding the contribution of education to GDP and compare their education expenditure and enrollees and 2) determine the causality between the education expenditure and GDP in ASEAN.

Similarly, in a wider perspective, a comparison between ASEAN and EU economic integration in the study of Thu and Anh (2013), by establishing a single market and production base, making ASEAN more dynamic and competitive, ASEAN Economic Community (AEC) aimed at deeper and broader economic integration between ASEAN member countries. Although the AEC model is still far from the European Union (EU) - style economic integration, there has been a question commonly asked – will AEC lead ASEAN to EU-style economic integration? Recently, when EU has encountered public debt crisis, the economic integration model of EU which was considered a successful one has revealed its own problems. By applying the economic integration theory to compare the model of economic integration in EU and AEC, the study aimed to identify the differences of economic commons in EU and AEC and found significant differences, especially the level of economic integration of the two models (Thu & Anh, 2013).

The prior study mentioned above was limited to analysis of individual member countries with a comparison of all the ten countries on the issues that cannot illustrate the insights of the impact on the whole regional integration, or on the wide perspectives which compared well-established economic community and newly established one which merely resulted in major differences that yielded only partial, in any, contributions to the insights of progress, opportunities, challenges, and future directions of newly integrated economic community. The issue that could drive economic community development and its competitiveness was human capital development which could be done through education. Education and human capital development are closely related. ASEAN's engagement to education was overviewed below.

2.4 Overview of ASEAN Goal on Education

2.4.1 ASEAN's engagement to education

Since its establishment in 1967, ASEAN has been supportive of regional cooperation in the field of education. However, it was not until the 4th ASEAN Summit in Singapore in 1992 that ASEAN leaders specifically addressed the need to focus on an initiative in this sector. Their deliberations resulted in the establishment in 1995 of the AUN, comprising at that time of 11 member universities.

In 2005, ASEAN leaders called upon the ASEAN Education Ministers to focus on enhancing regional cooperation in education. In response, the Ministers identified four priorities, namely: 1) promoting ASEAN awareness among ASEAN citizens, particularly young people; 2) strengthening ASEAN identity through education; 3) building ASEAN human resources in the field of education; and 4) strengthening ASEAN university networking.

On 15 December 2008, when an *ASEAN Charter* came into effect, One of the purposes of ASEAN declared to be is: “To develop human resources through closer cooperation in education and lifelong learning, and in science and technology, for the empowerment of the peoples of ASEAN and for the strengthening of the ASEAN Community” (Article 1).

In 2009, the 14th ASEAN Summit declared that various actions needed to be taken by 2015 to strengthen the role of education in building the ASEAN Community. Education was seen to have a significant role to play in contributing to the political and security, the economic and the socio-cultural pillars supporting ASEAN. Strengthening the political and security pillar was agreed to require that the school curriculum across the ASEAN region should: 1) promote a better understanding of the ASEAN Charter; 2) advance principles of democracy and of respect for human rights and peace-oriented values; and 3) provide a better understanding and appreciation of different cultures, customs and faiths in the ASEAN region.

In 2014, a goal for ASEAN community and ASEAN was set for integration to build people-centered ASEAN community. The goal was later officially declared in Kuala Lumpur. The goal also focused on empowerment of greater opportunities for all in ASEAN in a post-2015 era. Education is a key to ASEAN community and ASEAN

integration and people are the center. The 8th ASEAN Ministers Meeting on Education (ASEM) agreed on ASEAN post-2015 vision on education to: 1) continue to promote a Community that puts people at its center as well as one with an enhanced awareness of ASEAN, 2) remain in its focus on sustainable development in the region and 3) put emphasis on access to quality inclusive education and development of lifelong learning through capacity building programs and provision of structural guidelines.

To prepare for the AEC community in 2015, the ASEAN 5-year work plan on education was initiated. ASEAN's progress in the field of education is reviewed through the ASEAN 5-Year Work Plan on Education (2011- 2015) as detailed in the following part.

2.4.2 Progress with the ASEAN 5-year work plan on education (2011-2015)

This review of ASEAN's progress in the field of education takes account primarily of the four priorities expressed in the ASEAN 5-Year Work Plan on Education (2011- 2015). These priorities subsume most of the actions proposed earlier in the *ASCC Blueprint* and are broadly inclusive of the full range of ASEAN's aspirations for education systems across the region.

2.4.2.1 Priority 1 – Promoting ASEAN awareness

There is no doubt that awareness of the ASEAN motto, 'One Vision, One Identity, One Community,' is a strong driving force across all ASEAN Member States.

2.4.2.2 Priority 2A – Increasing access to quality primary and secondary education

Young people were provided these accesses to a quality education

2.4.2.3 Priority 2B – Increasing the quality of education – performance standards, lifelong learning and professional development

Particular significance to the importance of developing the quality of education at all levels of education across the region – basic education, TVET and higher education was raised.

2.4.2.4 Priority 3 – Cross-border mobility and internationalization of education

Mobility of students and teachers between ASEAN Member States is strongly endorsed in the ASEAN 5-Year Work Plan on Education (2011-2015). The

programs proposed include share knowledge of regional resources and interconnectedness of AMS, strengthen activities that support student exchanges and scholar-ships at all levels, and develop a regional action plan to internationalize higher education with a focus on regional strategies.

2.4.2.5 Priority 4 – Support for other sectoral bodies with an interest in education

The Declaration on Strengthening Cooperation on Education to Achieve an ASEAN Caring and Sharing Community in 2009 highlights some key actions of educational cooperation in contributing to the establishment of an ASEAN Community that is people-centered and socially responsible, with a view to achieving enduring solidarity and unity among the nations and peoples of ASEAN. Among these were some important commitments specifically relating to strengthening the economic pillar underpinning ASEAN, which agreed to: 1) develop a national skills framework in ASEAN Member States as an incremental approach towards an ASEAN skills recognition framework, 2) promote greater mobility of students by developing a regional catalogue of information materials of education offered in ASEAN Member States, 3) support greater mobility of skilled workers in the ASEAN region through regional cooperation mechanisms among ASEAN Member States to be accompanied by efforts to safeguard and improve educational and professional standards, 4) develop an ASEAN competency-based occupational standard aimed at supporting the development of ASEAN human resources that are regionally and globally competitive and that meet the needs of industries in coordination with the ASEAN Labor Ministers Meeting (ALMM) process; and 5) encourage the development of a common standard of competencies for vocational and secondary education as a base for benchmarking with a view to promote mutual recognition.

Cooperation on education among ASEAN Member States is fundamental to the success of these initiatives and is achieved through SOM-ED, which is the relevant sectoral body that oversees education under the ASEAN framework. Other ASEAN sectoral bodies also have a role to play. To this end, various professional groups have contributed to the development of regional frameworks for the quality education.

2.4.3 ASEAN work plan on education (2016 – 2020)

The 23rd ASEAN Summit in Brunei Darussalam issued the Bandar Seri Begawan Declaration on the ASEAN Community's Post-2015 Vision (BSB Declaration), with the vision of a politically cohesive, economically integrated, socially responsible, and a truly people-oriented, people-centered and rules-based ASEAN as central elements of a Post-2015 Vision of the ASEAN Community. This direction by the ASEAN Leaders was subsequently followed up through by the ASEAN Senior Officials Meeting in Education (SOM-ED) with the formulation of the Education Post-2015 Vision adopted at the 8th ASED, held on 11 September 2014 in Vientiane, Lao PDR. The vision statement reads as follows: "The ASEAN education sector will continue to promote a community that puts people at its center as well as one with an enhanced awareness of ASEAN. It remains steadfast in its focus on sustainable development in the region, with emphasis on access to quality inclusive education and development of lifelong learning through robust capacity building programs and provision of structural guidelines."

2.4.4 Complementarities of priorities between Sustainable Development Goals (SDG) 2030 and education 2030

Complementarities of priorities between ASEAN Vision and the SDGs incorporate these 4 keys:

2.4.4.1 identifying priority cross-cutting areas that support the synergy between the ASEAN Vision 2025 and the UN 2030 Agenda for Sustainable Development;

2.4.4.2 ASEAN-UN Secretariat-to-Secretariat (S2S) Meeting;

2.4.4.3 plan of Action to Implement the Joint Declaration on Comprehensive Partnership between ASEAN and the United Nations (2016-2020) which covers these two areas: 1) inclusive and equitable opportunities to quality education for all, school safety against disasters and promote lifelong learning, pathways, equivalencies and skills development and the use of information and communications technology (ICT); 2) education, training and research and support ASEAN's enhanced role in regional and global research networks; 3) student mobility exchanges; and 4) volunteerism.

2.4.4.4 ASEAN - UNESCO Framework Agreement for Cooperation (17 December 2013) –recently revived, discussions ongoing on two areas:

1) Priority 1 on Education: Coordination on the implementation of SDG Education in ASEAN (with focus on OOSCY and implementation of the ASEAN Declaration to support OOSCY)

2) Priority 2 on Education: Harmonization of ASEAN TVET and Higher Education Qualifications and Cross-Border Mobility of Skilled Labours and Professionals including regional convention on Higher Education in Asia Pacific.

2.4.5 The AEC blueprint 2015 progress and Sustainable Development Goals (SDG)

The AEC Blueprint by 2015 was implemented and its progress was monitored. ASEAN agreed that monitoring the progress of the AEC should be strengthened in order to realize the AEC objectives. Asian Development Bank Institute (ADBI) noted that the progress beyond 2015 involve four main issues: ASEAN customs union, free movement of labor and capital, strengthening the ASEAN secretariat, and ASEAN and the WTO. The 9th ASEAN education minister meeting determined ASEAN’s sustainable development goals to transform ASEAN world. The goals could be illustrated as shown in Figure 2.1 Seventeen Sustainable Development Goals to Transform ASEAN.



Figure 3 Seventeen Sustainable Development Goals to Transform ASEAN

In Figure 3, ASEAN's sustainable development to transform the region comprise these 17 goals: 1) no poverty, 2) zero hunger, 3) good health and well-being, 4) quality education, 5) gender equality, 6) clean water and sanitation, 7) affordable and clean energy, 8) decent work and economic growth, 9) industry, innovation and infrastructure, 10) reduced inequalities, 11) sustainable cities and communities, 12) responsible consumption and production, 13) climate action, 14) life below water, 15) life on land, 16) peace, justice and strong institutions and 17) partnerships for the goals.

2.4.6 Sustainable Development Goals (SDG) on education and targets

Among the 17 SDG goals, SDG 4 (Quality Education) is the key to economic integration. The quality education aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all as illustrated in Figure 2 Sustainable Development Goal (SDG 4) below in Figure 2.2 Sustainable Development Goal (SDG 4) of Quality Education.



SDG4: *“Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”*

Figure 4 Sustainable Development Goal (SDG 4) of Quality Education

Figure 4 demonstrates the SDG 4 sets 10 targets to promote quality education and, within the targets, ASEAN priority areas on education were also set in order to achieve the goal in 2030. The targets and the priority areas could be detailed as seen below.

First, on “equitable and quality primary and secondary education leading to effective learning outcomes,” the priority incorporates these two areas: 1) promote inclusive schools through improved access and provision of basic education to marginalized and OOSC and 2) improve the quality of basic education through quality-focused interventions.

Second, on “access to quality early childhood development, care and preprimary education,” the priority areas have not been set.

Third, on “ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university,” the priority involves these areas: 2) maximizing access to TVET for employment and sustainable development, 2) strengthening regional harmonization for the advancement of quality TVET transformation through networking, partnerships and mobilization of TVET personnel and resources, 3) establishing regional quality assurance and recognition for TVET and/or non-degree (diploma or certificates only) institutions, and 4) reducing the gaps between vocational skills demand and supply across ASEAN.

Fourth, on “increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship,” the priority comprises these areas: 1) maximizing access to TVET for employment and sustainable development, 2) strengthening regional harmonization for the advancement of quality TVET transformation through networking, partnerships and mobilization of TVET personnel and resources, 3) establishing regional quality assurance and recognition for TVET and/or non-degree (diploma or certificates only) institutions, and 4) reducing the gaps between vocational skills demand and supply across ASEAN.

Fifth, on “eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations,” the priority includes these two areas: 1) promoting inclusive schools through improved access and provision of basic education to marginalized and OOSC and 2) improving the quality of basic education through quality-focused interventions.

Sixth, on “ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy,” there is no priority area.

Seventh, on “ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable

development,” the priority consists of these three areas: 1) Promoting a culture of peace and understanding through education in contributing towards peaceful and harmonious ASEAN Community, 2) strengthening collaboration between the education and other sectors related to ESD, and 3) promoting the inclusion for Disaster Risk Reduction (DRR) in national curriculum through support to relevant sectors' initiatives.

Eighth, on “build and upgrade education facilities that are child, disability and gender sensitive and provide safe, nonviolent, inclusive and effective learning environments for all,” no priority area was determined.

Ninth, on “expand globally the number of scholarships available to developing countries for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programs, in developed countries and other developing countries,” the priority includes these two areas: 1) developing harmonized quality assurance mechanisms within the context of ASEAN and 2) supporting institutional capacity in developing harmonized quality assurance mechanisms within the context of ASEAN.

Finally, tenth, on “increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states,” the priority consists of these three areas: 1) expanding and improving human and institutional capacity in educational software development and online instructional design to enhance access to quality education; 2) strengthening capacity to access and use digital learning through ICT in ASEAN Member States; as well as provide other capacity building programmes to support this; 3) promoting education exchange week to conduct comprehensive, multi-level, and wide-ranging exchanges and cooperation; and 4) enhancing teachers' competencies for 21st century skills.

The quality education is a key to drive human capital development for accelerating economic integration and sustainable development as an ultimate goal of ASEAN economic and inclusive integration to the global economy and community. Human capital development and sustainable development are two relevant theories to this study. Although this qualitative study is based on a documentary analysis which is more inclined to grounded theories, two possible theoretical explanations that minimally get involved to provide inclusive understanding of this analysis are human

capital development and sustainable development. A glance at priory study on the two theoretical principles are included in literature review of prior study.

2.4.7 Prior study on human capital development and sustainable development

Human capital development is the key drive of regional economic development and also the means to achieve the goal of ASEAN's integration to the global economic community which aims at sustainable development. It is essential to comprehend the goal in order to get insights of the economic development in this region. Figure 5 below illustrates key components of sustainability and the sustainability priorities that the world is working for as shown in figure 5.



Figure 5 Three components of sustainable development: environmental, economic, and social

Figure 5 considers the three components of sustainable development (namely environment, economic and social) incorporating the seventeen sustainable development goals to transform ASEAN, the goals could be classified into the three components as follow. The environment component comprises clean water and sanitation, affordable and clean energy, climate action, life below water, life on land. In addition, the economic component consists of no poverty, zero hunger, decent work

and economic growth, industry, innovation and infrastructure, sustainable cities and communities, and responsible consumption and production. Lastly, the social component includes good health and well-being, gender equality, reduced inequalities, peace, justice and strong institutions and partnerships for the goals.

Lying integral as the core of the sustainable development is quality education as the key factor to the rest. More importantly, the quality education drives the regional economic integration through human capital development. Prior study verifies the role of human capital development to the regional economic integration.

2.4.8 Prior study on human capital development

Prior study on human capital development and sustainable development involves these issues: the role of human capital in the economic growth, the innovation process, investment, the development of innovation and technology, experiences of countries in the region, education for the 21st century and recommendations needed for R&D and innovation.

According to Tullao and Cabuay (2015), most countries still have ways to go in order to fully develop their innovative capacity, especially engineering, which is a significant source of innovations in a country, needs to have its curriculum revamped to adapt to global competition as well as to cater to the need of countries to innovate. This study therefore recommends the improvement of technical competence of engineering education, the exploration of possible cooperation among engineering schools and professionals, learning from advanced economies on the development of advanced skills, the development of the soft skills of engineering students, and adopting an innovation perspective in the development of a nation.

Similarly, another study on innovations by Irawan (2014) that examined the impact of information and communications technology (ICT) on economic performance has been an interesting issue in economics. There are at least three key points that can be learnt from the previous literatures regarding ICT and country's economic performance. First, more developed countries are expected to benefit greater than less developed countries. Second, the impact of ICT will depend on the intensity of ICT utilization. Third, the size and structure of ICT sector of country's economy does matter. The main contribution of this paper is to evaluate those three points by conducting comparative analysis based on Input-output (I-O) Table from four ASEAN

Member States, namely Indonesia, Singapore, Malaysia and Thailand. ASEAN is used because it is one of the regional associations that have a large income gap among its members. The results suggest that more developed countries (which are measured by income per capita) do not always benefit greater than less developed countries from ICT development. The magnitude of ICT impact on the economy depends on the intensity of ICT utilization and the structure of ICT sector.

Prior study on human capital development also involved with economic issues. For example, Thangavelu and Narjoko (2014) examined the impact of foreign direct investment flows into ASEAN in a gravity model using the bilateral FDI data from 2000 to 2009. In particular, this was a study of the key factors that determine the FDI flows into the region including human capital development and whether membership of a bilateral or regional trade agreement has a differential impact on FDI flows using an extended gravity model. The results of the study indicate that free trade agreements do have positive impact on FDI inflows. On the other hand, the returns on FDI inflows depend on the domestic absorptive capacity of the economy and region. It is imperative for ASEAN to align its infrastructure, human capital and technologies to provide MNCs with the necessary linkages to the global network as well as to move the domestic industries seamlessly up the global production value-chain. The paper highlights that this is crucial for deeper ASEAN integration and for sustainable growth in the region.

According to Sieng and Yussof (2017), comparative study on human capital performance between countries is important especially for developing countries to measure their gap with developed countries. This article uses the unconventional TOPSIS method to compare Malaysia and other selected countries in terms of human capital achievement with education being the main measure of human capital. Results indicate that Malaysia is doing great among her ASEAN peers but more need to be done in order to catch up with the developed nations.

Lastly, Ho and Ge (2011) focus on producer services and migration flows needs to be matched by an accompanying look at city-based strategies. This paper represents an attempt to provide this by providing a case history analysis of Singapore in three stages of growth – as port city, industrial city and as world city – in order to show how the evolving infrastructure associated with human capital (education,

immigration and labor policies) allows human capital to be developed, attracted, harnessed, deployed, released and retained.

The aforementioned prior research on human capital development above reflects the means and ends to sustainable development which is the future goal of ASEAN's integration into the global community. Although the future lies far ahead, it is the direction where ASEAN is moving towards. The issue drew some concerns to ASEAN research study.

2.4.9 Prior study on sustainable development

Prior study on sustainable development in this region involves indicators for sustainable development (Bossel, 1999), the economics of sustainable development (Daly, 1996), review of sustainable development (Lele, 1991), Sustainable Development goals (SDGs) in transforming ASEAN in 2030 (Assembly, 2015), lessons of sustainable development from the ASEAN Way (Kheng-Lian and Robinson, 2002), shaping the future we want and education for sustainable development (Buckler and Creech, 2014), and making ASEAN process (Jones & Smith, 2007).

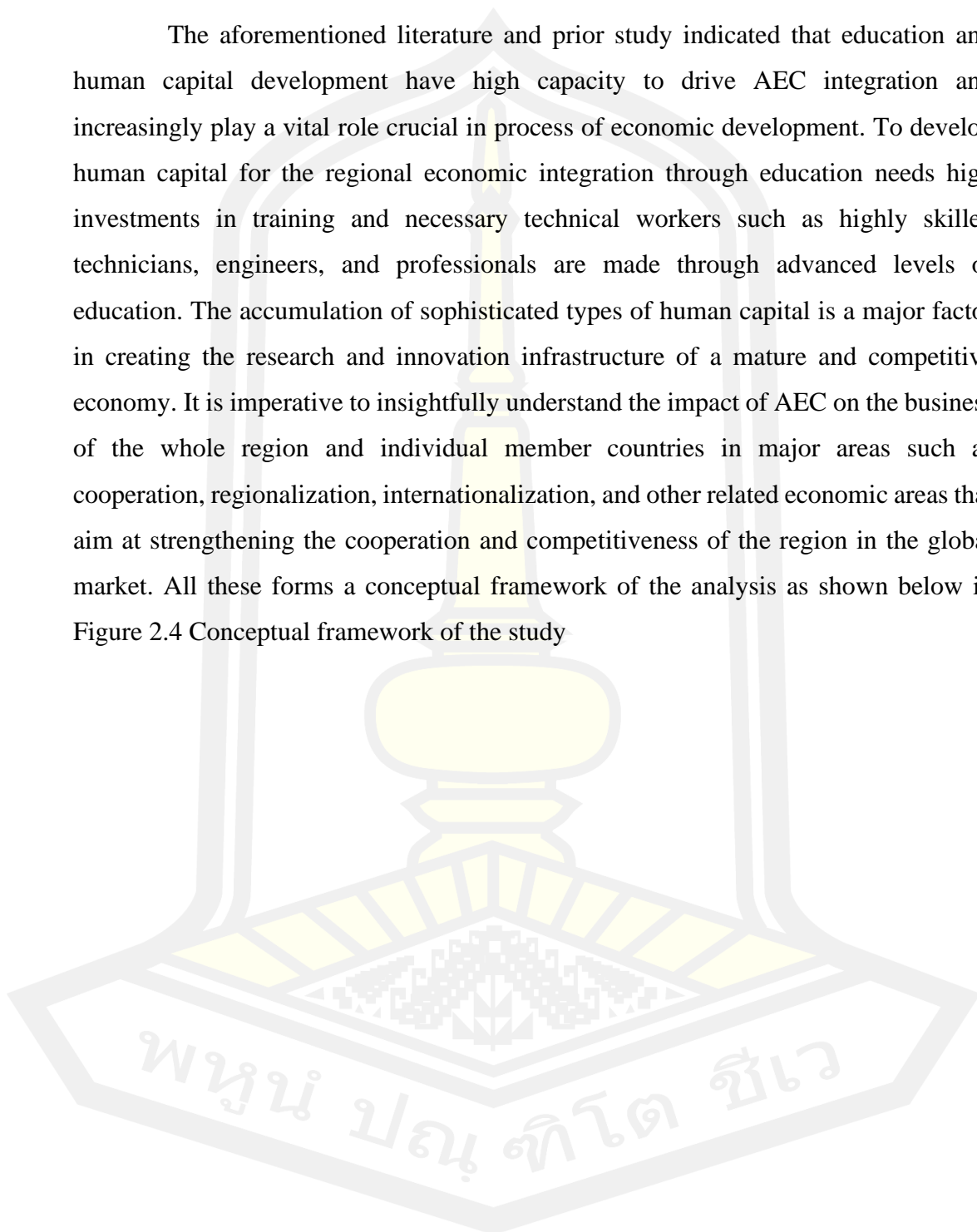
Sustainable development as the goal of future goal of ASEAN's integration into the global community is not the major concern of this analysis but included to foreshadow the ends of human capital development which is the major concern of this analysis.

2.5 Implications of the Literature Review

The aforementioned literature yields these implications. Above all, it provides background needed for analyzing the impact of AEC on education business in this region such as prospective opportunities and crucial challenges of AEC, ASEAN's engagement with education towards achieving AEC and initiatives. In addition, official documents and prior research in this chapter are the primary and secondary sources of data which would be meticulously compared, contrasted, scrutinized and analyzed to draw the conclusion of study.

2.6 Conceptual Framework

The aforementioned literature and prior study indicated that education and human capital development have high capacity to drive AEC integration and increasingly play a vital role crucial in process of economic development. To develop human capital for the regional economic integration through education needs high investments in training and necessary technical workers such as highly skilled technicians, engineers, and professionals are made through advanced levels of education. The accumulation of sophisticated types of human capital is a major factor in creating the research and innovation infrastructure of a mature and competitive economy. It is imperative to insightfully understand the impact of AEC on the business of the whole region and individual member countries in major areas such as cooperation, regionalization, internationalization, and other related economic areas that aim at strengthening the cooperation and competitiveness of the region in the global market. All these forms a conceptual framework of the analysis as shown below in Figure 2.4 Conceptual framework of the study



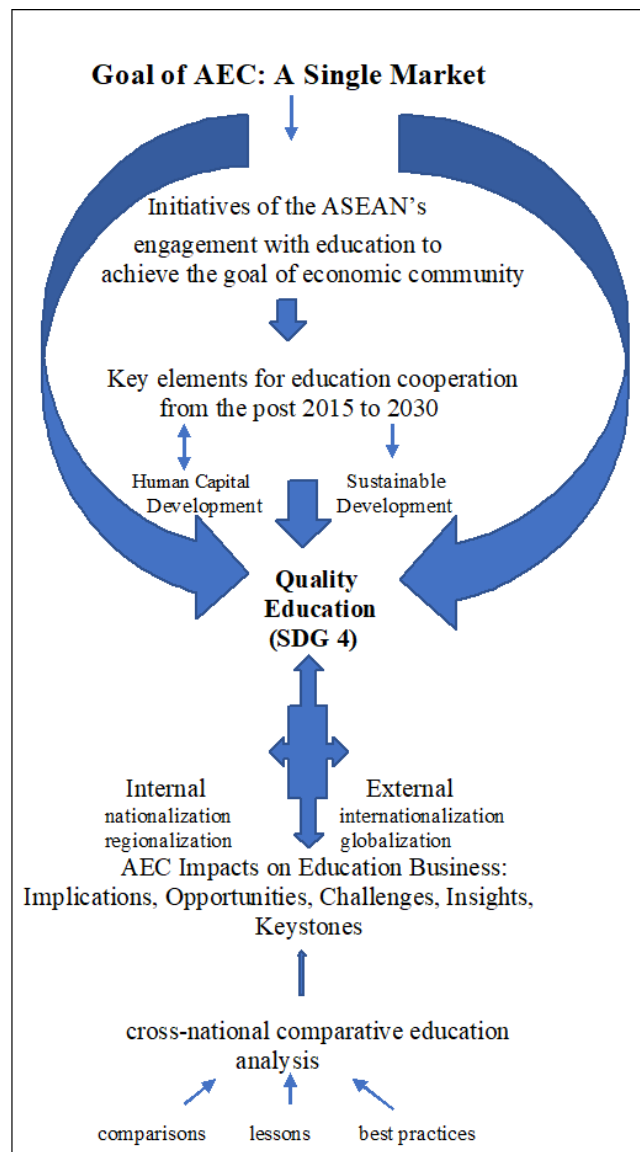


Figure 6 Conceptual framework of the study

Figure 6 highlights the major elements and their relationship to make up the conceptual of this study. The goal of AEC aims at creating a single market. To achieve the goal, education is the key to drive the economic community. This analysis will pay attention to Initiatives of the ASEAN's engagement with education in its attempt to achieve the AEC goal, with a specific focus on key elements for education cooperation from the post 2015 to 2030. Special attention on key elements for education cooperation will concentrate on the role of education on human capital development in driving AEC integration to sustainable development. The quality education (SDG 4) is integral to the

economic integration process. To create the quality education, internal factors (e.g. nationalization and regionalization) and external factors (e.g. internationalization and globalization) that have had influences on the quality education. The analysis of this study put emphasis on how these factors – the quality education, internal and external factors – have impact on education business and the economy of the member countries and the whole region in order to achieve the goal of AEC.

The analysis will primarily focus on opportunities and challenges of the key elements and initiatives of the ASEAN's engagement with education towards achieving AEC for all stakeholders in the education community and the country's economy to gain insights of the impact on the regional education business, particularly significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community and the country's national economy in the nexus among national, regional and global developments.

A cross-national comparative education analysis will be conducted. Comparisons of significant insights, initiatives, and lessons will also be gleaned from the best practices in education business across countries, regions and the globe to be included in the analysis.

All these aims to provide suggestions to key milestone for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries in this changing context in relation to the education developments reflected in relation to wider regional and global contextual trajectories, especially in this disruptive era.

2.7 Conclusion of the Chapter

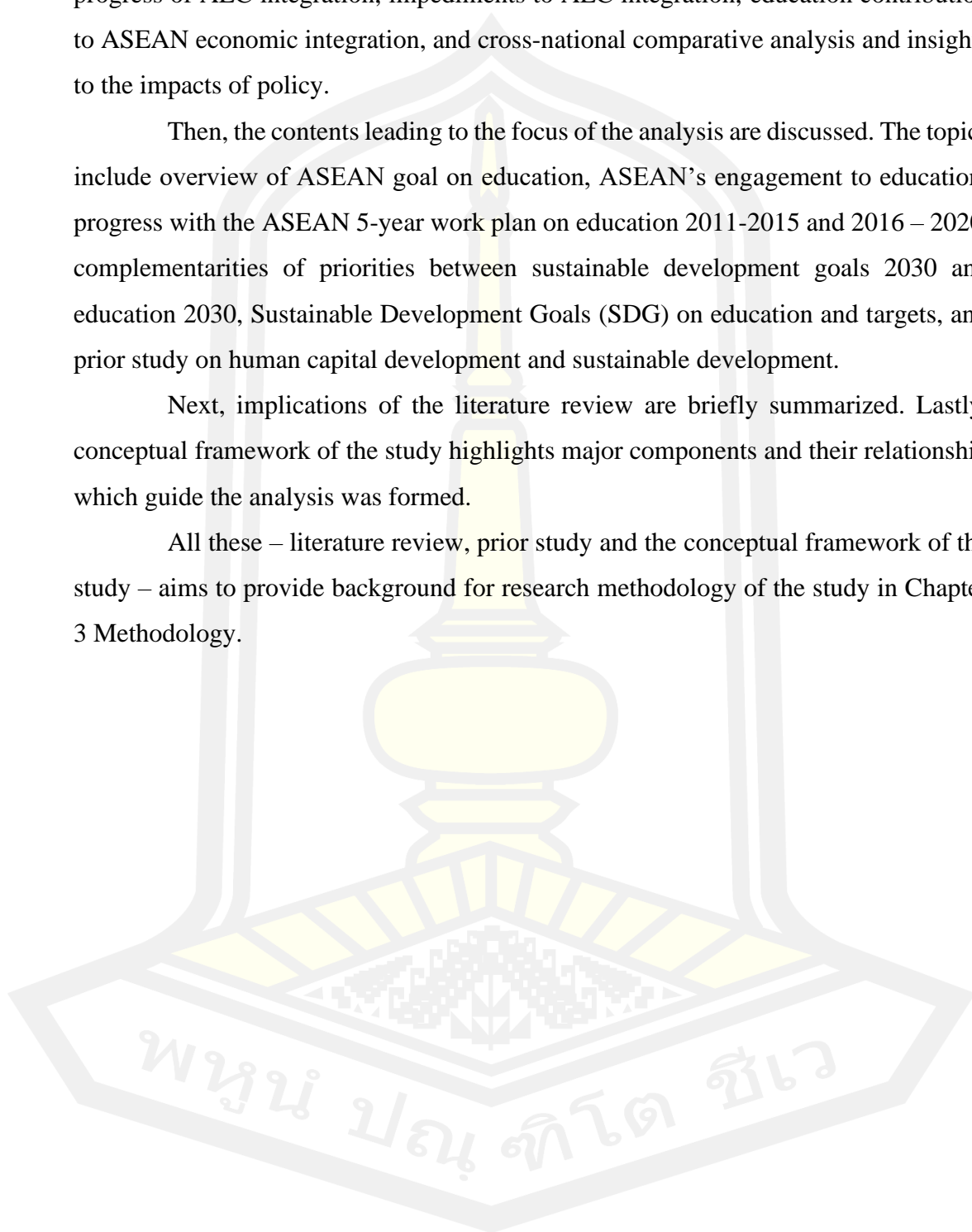
This chapter provides a background to the analysis of the impact of AEC on education business in chapter 4 results and discussions. The contents begin with a brief history of ASEAN economic integration before 1980s and in the 1980s-1990s, ASEAN market-driven economic integration in 1990s, and the AEC blueprint by 2015 and beyond.

Also, prior research on AEC in various areas is provided. The areas include progress of AEC integration, impediments to AEC integration, education contribution to ASEAN economic integration, and cross-national comparative analysis and insights to the impacts of policy.

Then, the contents leading to the focus of the analysis are discussed. The topics include overview of ASEAN goal on education, ASEAN's engagement to education, progress with the ASEAN 5-year work plan on education 2011-2015 and 2016 – 2020, complementarities of priorities between sustainable development goals 2030 and education 2030, Sustainable Development Goals (SDG) on education and targets, and prior study on human capital development and sustainable development.

Next, implications of the literature review are briefly summarized. Lastly, conceptual framework of the study highlights major components and their relationship which guide the analysis was formed.

All these – literature review, prior study and the conceptual framework of the study – aims to provide background for research methodology of the study in Chapter 3 Methodology.



CHAPTER 3

Methodology

3.1 Introduction

Education can be prospective opportunities and potential challenges of the economic integration as such sophisticated types of education demand high investment funded by the government or private business. Not all ten countries can afford such high investment due to disparities of economic prosperity within the region. Therefore, the economy of education or the ten ASEAN member countries could be broadly classified into three groups: highly developed nations (Singapore, Malaysia, and Brunei), middle income countries (Thailand, Indonesia and Philippines) and those just emerging (Vietnam, Myanmar, Lao PDR and Cambodia). The ASEAN continues to grow to achieve the goal of a single market where no one gets left behind. It is necessary to analyze the impacts of the goal on the economy of education in order to understand the economic transformation in this region.

Three research questions to be raised so as to guide and frame this analysis included the following: 1) What are the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community and the country's national economy? 2) What is the synthesis of significant insights, initiatives, and lessons gleaned from the best practices in education business across countries? 3) What are the keystones for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries in this changing context in relation to the education developments reflected in relation to wider regional contextual trajectories?

To answer these research questions, the purposes of this analysis were determined as seen in the next part. The design of the study was detailed below

3.2 Research Method

In principle, the research method was designated by the research paradigm, the research purposes of the study and the research questions (Cohen et al., 2011). This study explored and compared education policies across ten ASEAN countries as indicated in chapter 4. In light of the focus, purpose and context, this present study adopted cross-national comparative methods (Halls, 1990; Hantrais, 1999) employing the qualitative, interpretive approach (Remler, 2011; Guba & Lincoln, 1994). Comparative education, as a method and an object of study (Halls, 1990), focused on cross-national perspectives (Kubow & Fossum, 2007). The study was qualitative and interpretive in that it was concerned with meanings, interpretations and understanding of phenomena (Neuman, 2006), and it was comparative in that it explores and compares policies of different countries (Chaube & Chaube, 1993; Sodhi, 1993; Kubow & Fossum, 2007).

3.2.1 Research design

Methodologically, a good research design is guided by the research questions, the research purpose(s) and the research paradigm (Cohen, Manion & Morrison, 2011). A research design is vital for directing the manipulation of data to answer the research questions as suggested by Kumar (2005) that a research design provides a basis and direction for answering research questions. Different studies therefore have different designs and the designs are determined by their purposes, research questions, and paradigms (Woldetsadik, 2012; Cohen et al., 2011; Knafl & Howard, 1984).

Practically, a research design is served as a blueprint for collection of data (Suter, 2006) which sets out specifications that direct the manipulations of the data (Krippendorff, 2004) which is based on qualitative and interpretive process, including these procedures: exploring, interviewing, understanding, interpreting, and making sense of the contents of the policy documents (Denzin & Lincoln, 2011). Built upon the procedures, this present study fell in the qualitative and interpretive research design category. More elaborately, this study could also be classified into comparative research design as defined by Ferlie et al. (2009) and Gravetter and Forzano (2009) that comparative research design category compares the policies of the countries and by Halls (1990) and Hantrais (1999) that comparing each issue and area within the region

or across the globe classifies such study in the category of cross-national comparative methods.

In short, this study employed a qualitative, interpretive and cross-national comparative analysis of documents. The design of this study involved exploration, interpretation and logical organization of data, document and texts. Two main origins of data in this comparative analysis comprised primary sources (including legislative documents and papers, first-hand committee reports and administrative files) and secondary sources (including textbooks, general commentaries, newspaper reports and periodical articles). Cross-national comparative analysis of documents was chosen for the rationale as illustrated in the next part.

3.2.2 Rationale for the research design

A cross-national comparative analysis was purposefully selected for understanding the impacts of ASEAN initiatives on education business in ASEAN regional context for at least for the following reasons.

First, comparative analysis is a research method of identifying the best practice in any educational system from myriad regional and international perspectives (Aggarwal & Gasskov, 2013). The principle of identifying a successful system in one country through comparative study and applying it for improving a relevant system in another country empowers and promotes international relationships among the compared countries (Altbach et al., 1982; Chaube & Chaube, 1993) through a more profound understanding of why the educational policies of some countries are successful while others are not. Any influences of a particular system on educational systems and developments are also illuminated by a comparative approach.

Second, comparison is also a tool which can be used to develop and improve international relationships between countries, as described by Anderson (1971), by sharing experiences among countries develops a neutral ground for mutual understanding between nations or multilateral understanding among nations (Kim et al., 2010). Practically, a cross-national comparative education analysis in regional or similar contexts is a tool which can be used to develop international or regional relationships between the ten member countries. These indicators contribute to the improvement of education systems and practices (Raivola, 1986; Kubow & Fossum, 2007; Hans, 2013).

Third, it is an effective research method in the field of education and business, especially in international, regional and across-nation contexts. The comparative studies in this study involved an analysis of the similarities and dissimilarities of different national education policies and structures under the same vision (i.e. the single market). They explored educational policies and practices of different contexts with a view to improve education systems by drawing on the range of regional, international and global experiences and practices (Hantrais, 1999; Gezi, 1971). Similarly, building upon this position, this present study explored educational initiatives and practices of ten different member countries in ASEAN region with a view to improve education systems in each country as a key factor to achieve the regional goal.

Fourth, like all international comparative studies (Akoojee et al., 2005), a regional comparative analysis provided some indicative insights into certain areas of relative strength and weakness in national trajectories. The insights can be drawn from definition, meaning, scope, approach and topics of debate in comparative issues from a variety of theoretical perspectives (Kubow & Fossum, 2007; Kelly & Altbach, 1986) but there is a common thread linking these perspectives (Kubow & Fossum, 2007). Analysis indicates insights into a theory while comparisons lead the analysis to wider and deeper insights into the theory or theories as it has been approached from a variety of theoretical perspectives (Kubow & Fossum, 2007). This analysis draws on the range of international, regional and national experiences and practices (Hantrais, 1999) which provide indicative insights into certain areas of impacts, prospective opportunities, potential challenges, strengths and weaknesses of education business in international, regional and national contexts.

Fifth, comparative study involved the analysis of educational policies of different countries with a view to understanding their educational challenges and their solutions as Chaube and Chaube (1993) and Kubow and Fossum (2007) note that educational policy is influenced by philosophical background and by political, social, cultural, economic and religious circumstances. Comparative study analyses the impacts of such factors in their influence on educational policies (Chaube & Chaube, 1993) and seeks solutions to educational problems through a better understanding of the conditions and circumstances that influence and shape educational policies and systems. This present cross-national comparative analysis was not limited to the

similarities and differences between the educational policies of two or more countries; it included the general principles, theoretical and philosophical foundations upon which the ten national educational systems are based (Chaube & Chaube, 1993).

Sixth, the focus in comparison in this present study moved beyond the general organisational structures, methods and processes of differing practices to include the underlying socio-political, economic and cultural differences that account for such variations (Sodhi, 1993), as historical factors, traditions and environmental factors in different countries could influence their educational policies and initiatives (Sodhi, 1993). Cross-national comparative study can reveal traditions and historical backgrounds that are common to different countries and provide insight on how educational practices are approached and handled in other countries with similar backgrounds. In emphasizing the importance of comparative study, Sodhi (1993) notes that useful lessons are to be derived from the variations in educational systems of different nations. Comparative study provides an opportunity for countries to learn from each other (Raffe et al., 1999). These lessons and experiences are used to improve reform and reorient the education policies of other countries (Sodhi, 1993; Kubow & Fossum, 2007).

Seventh and lastly, comparative study also generates information and data for theoretical and philosophical assumptions about educational matters, with theoretical and philosophical assumptions underpinning educational systems of one country informing educational reforms in another (Kubow & Fossum, 2007). Similarly, Powell (2001) and Jones et al. (1971) indicate that comparative education has practical utility in establishing a basis for reform and improvement of education systems by administrators and policy makers. Therefore, comparative study has advantages for educational and systemic planning (Sodhi, 1993) such as extending knowledge of the benefit to be derived from technological innovations and improvements in the implementation processes. These innovations and improvements in the teaching and learning processes would be made known to other countries through comparative studies (Sodhi, 1993).

3.2.3 Comparative education methodology

There is no conclusive agreement on method for comparative research (Gezi, 1971; Jones et al., 1971). Some researchers propose four steps in a comparative

approach (namely description, interpretation, juxtaposition and comparison) while others regard testing of hypotheses as the fundamental comparative element (Gezi, 1971). In general, comparative methods consist of two steps: juxtaposition and comparison. Juxtaposition involves aligning data from various countries to organize them for comparison, thus allowing comparison of systems and practices in different countries at a glance. Presenting data, systems and practices of different countries in tabular form also assists understanding of the similarities and differences between the systems and practices (Pennar et al., 1971).

However, the qualitative research paradigm is the dominant design characteristic in comparative study (e.g., Chaube & Chaube, 1993; Leech & Onwuegbuzie, 2007) as Lawson (1990) notes that comparative education is chiefly regarded from a qualitative point of view. Similarly, Chaube and Chaube (1993) point out that comparative study requires analysis in identification of differing categories. They list the following analytical steps in comparative study: data collection, interpretation, determination of standards or categories for comparison, and conclusion. Comparative analysis is a qualitative process of understanding phenomena and deriving meaning (Leech & Onwuegbuzie, 2007). It involves qualitative data analysis to identify similarities and differences (see also Vos & Brits, 1990; Kubow & Fossum, 2007; Sodhi, 1993).

This qualitative data analysis data collection was be complied through systematic coding process. The data analysis was concerned with understanding, interpreting and making sense of the data, document and texts in order to derive meaning, categorization and abstraction of data. Choice of documents to be analyzed was crucial for this study as explained below.

3.2.4 Choice of documents under analysis

This was a documentary analysis. Two main origins of documents incomparative education were primary sources (such as legislative documents and papers, first-hand committee reports and administrative files) and secondary sources (such as textbooks, general commentaries, newspaper reports and periodical articles) (Jones et al., 1971). Data in this analysis was drawn from both sources. Primary sources of documents were preferred to secondary sources because they were usually more reliable and authentic. This present study mainly explores and compares policies,

legislations, plans and strategies in primary sources while secondary sources are used as supports.

3.2.5 Instrument for data elicitation

As this study focused on analysis and comparison of education business of the ASEAN countries and data elicitation for the study were collected through document analysis, this study required direct involvement of the researcher in data collection and thereby made the researcher an instrument for both data collection and analysis (Kaplan & Maxwell, 2005). The researcher's main area of expertise was in the field of education both in Thailand and overseas including ASEAN countries (such as Indonesia, Singapore, Malaysia, Myanmar, Vietnam, Lao PDR and Cambodia), in other Asian countries (such as China and Japan) as well as western countries (such as U.S.A) for almost 30 years. (See the researcher's biography.)

3.3 Data Collection Process and Coding System

3.3.1 Data collection process

As this study employed a qualitative, interpretive and cross-national comparative research, the data were compiled through analysis of documents (e.g., reports, research studies and texts), employing a simple data documentary approach to data collection and analysis. A review of each issue or area was briefly introduced and compared. A description of the issue or area under analysis was presented. Substantial conclusions were drawn from the comparative analysis of the issue or area within the region or across the globe in relation to the focus of analysis.

Specifically, the data collection process of this study involved exploration, interpretation and logical organization of document, texts or data (Davidson & Gregorio, 2011) and was fundamentally concerned with understanding, interpreting and making sense of data or text (Denzin & Lincoln, 2011; Preissle, 2011). It was flexible, inductive and iterative (Kaplan & Maxwell, 2005). In relation to its role in interpretation and making sense of data and text, Altheide and Johnson (2011) pointed to the progressive employment of qualitative design in policy studies. An interpretive perspective had the potential to increase the understanding of policy makers in seeking to improve practices and guide the transformation of a system. As defined by Cohen et

al. (2011), the purpose of systematic inquiry for an interpretive researcher was to understand a phenomenon in a particular place and time and compare it with similar phenomena in different contexts, places or time.

3.3.2 Scope of data collection

First, the scope of analysis limited to the impacts of AEC on tertiary education business in ASEAN countries from the inauguration of AEC in 2015 to the prospective integration of AEC to the global economy in 2030. The tertiary level was specifically chosen as a focus of the analysis as it was a key driver to quality education for human capital developments that could produce sophisticated types of education (namely R&D, technology, innovation and ICT) and professionals (namely digital specialists, skilled technicians, engineers, and scientists) that were the keystones for the regional economic transformation.

Within the scope of analysis, this study included the characteristics and key issues in the educational policy of member countries and its relationship with the regional developments as drawn from a comparative analysis of selected key issues. The outline included the following illustrations: 1) the educational goal of individual member country, 2) the nexus between the goal and the ASEAN educational engagement and between policy and practice in individual country to achieve the goal, 3) the education systems in ASEAN countries, and 4) the keys as drawn from a comparative analysis.

The scope of this analysis focused on the significant and powerful impacts, prospective opportunities and potential challenges being faced by individual member countries in policy implementation and their relationship with the regional developments, the nexus between reframing and refocusing of the policy – implementation in education business as drawn from the comparative analyses. Synthesis of the lessons drawn from the best practices in education business policy of member countries, the nexus between the best practices and their regional trajectories to and the prospects of regional education were also addressed.

3.3.3 Coding system

Data analysis process in this study borrowed from a qualitative data analysis involving coding, grouping, categorization and abstraction (Elo & Kyngäs, 2008).

According to Remler, (2011), the coding system dealt with labelling, organizing and categorizing data. Similarly, Weitzman (2000) referred coding to the process of labelling parts of text. In this present study, coding system involved identifying and grouping parts of data in the text that shared the same meaning or explain the same concept.

In qualitative data processing, one of the crucial aspects of qualitative research analysis is coding. Coding is an act of summarizing data or text with a conceptual description (Urquhart, 2013) which involves categorization of data (Basit, 2003) by gathering sections of the data at a single point that explain the same concept or phenomenon and, as noted by Elo and Kyngäs (2008), analysis is carried out systematically to include coding, grouping, categorization and abstraction.

In this present study, *coding system* was an act of systematic processing data or text (Elo & Kyngäs, 2008) which includes these steps: 1) organizing data for coding and gathering sections of the data at a single point that explains the same, similar or related idea, concept or phenomenon, 2) coding and recoding every element of a data item (Seale, 2002), 3) grouping and arranging the codes under appropriate nodes or containers or places for keeping categories, concepts or codes (O'Neill, 2013; Richards, 1999) that represent concepts, ideas, people and places (Richards, 1999), and 4) categorizing (Basit, 2003), reasoning, conceptualizing and summarizing the same, similar or related codes, abstraction, concept or phenomenon (Urquhart, 2012).

Practically, coding process in this study included these steps: 1) gathering the data that explain the same, similar or related idea, concept or phenomenon, 2) organizing data item, 3) manually coding, grouping and arranging the codes under appropriate nodes, 4) recoding to ascertain the appropriateness of the codes and nodes and 5) categorizing, reasoning, conceptualizing and summarizing the same, similar or related codes.

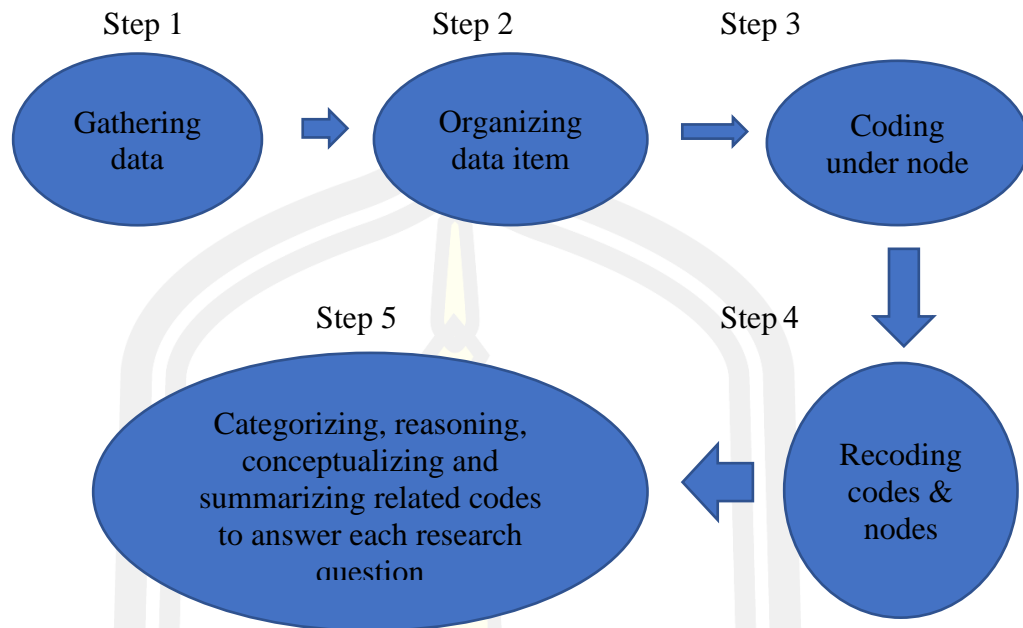


Figure 7 Coding process

3.3.4 Nodes, codes and descriptors

A *code* refers to a system of data to convey a meaningful message, concept or idea. A code is contained in a node. Conceptually, a *node* refers to a container or place for keeping categories, concepts, ideas, people, places or codes are represented by nodes. In operational term, *nodes* in this study refer to ideas, concepts, characteristics, quality, insights, initiatives and other abstraction.

Specifically, as the *impact* is the core term in this study, it is necessary to understand this term. *Impact* in general refers to powerful effects ASEAN's engagement with education towards achieving AEC has had on education business in the ten ASEAN member countries. The impacts can be positive or negative. More specifically, the impacts are considered in terms of prospective opportunities and potential challenges of the key elements and initiatives of the ASEAN's engagement with education towards achieving AEC for all stakeholders in the education community and the country's economy.

All nodes regarding *impact* consist of these nodes: prominent implications, key elements, key initiatives, outstanding characteristics, relationship, selected key issues, significant impacts, prospective opportunities, potential challenges, insights,

initiatives, lessons, best practices, keystones, innovations and recommendations. Below are the operational definitions of each node.

3.3.4.1 Prominent implications can be represented by something remarkable that is likely to happen as a result of ASEAN's engagement with education such as educational cooperation and job mobility.

3.3.4.2 Key elements can be represented by the most noticeable parts or features of ASEAN's engagement with education revealed in official documents.

3.3.4.3 Key initiatives can be represented by specific projects or programs undertaken by the ASEAN governments as an entity to achieve specific objectives as part of economic integration in the short-term or long-term such as policy, action plan, and strategy.

3.3.4.4 Outstanding characteristics can be represented by distinctive features, attributes and qualities of the specific plan, projects or programs undertaken to achieve a particular purpose as part of economic integration.

3.3.4.5 Relationship can be represented by the way or direction that countries, policies, actions or issues are connected at institution, local, national, regional, international and global levels.

3.3.4.6 Selected key issues can be represented by conspicuous ideas, concepts, and problems that are purposefully chosen for being discussed or taken into consideration as crucial to success of specific objectives.

3.3.4.7 Significant impacts can be represented by potential influences that have powerful effects on the success of specific objectives.

3.3.4.8 Prospective opportunities can be represented by essential possibilities, benefits, advantages, usefulness, efforts, situations and something that substantially enhance and facilitate the success of specific objectives.

3.3.4.9 Potential challenges can be represented by obstacles, efforts, situations, and Something that powerfully impede the success of specific objectives as part of economic integration or that need great effort in order to be done successfully.

3.3.4.10 Insights can be represented by a clear, profound, and sometimes immediate understanding of complexity, complications, and changes.

3.3.4.11 Initiatives can be represented by new plans, processes or policies to achieve something created by a member country or organization.

3.3.4.12 Lessons can be represented by an experience from similar or different situations that make a better future.

3.3.4.13 Best practices can be represented by successful models, useful treatments, or a set of working methods that is officially accepted as being the best to formally use in a particular business or industry, usually described in detail for practical application.

3.3.4.14 Keystones can be represented by to the most important parts of an idea, plan, or essence on which everything else depends.

3.3.4.15 Innovations can be represented by to new ideas, strategies, methods, designs, products, and actions, or the use of new ideas, strategies, methods, designs, products, and actions.

3.3.4.16 Recommendations can be represented by to conspicuous ideas, advice, suggestions of strategies, actions, plans, and policies that are effective for achieving objectives or goals for the promising future of education business in this region.

3.4 Data Analysis

In principle, analysis of documents aimed to determine the purpose of the documents under study (Jansen & Reddy, 1988) to identify potential problem areas (Pershing, 2002) by: 1) unpacking the document into its component parts, 2) identifying trends and developments, modes of conception and presentation, and possible solutions (Khan et al., 2007; Reddy & Jansen, 2010; Mintrom, 2010; Kondracki et al., 2002), 3) processing data step by step in order to derive meaning from it (Leech & Onwuegbuzie, 2007), and 4) disintegrating and reintegrating the data into related concepts, ideas and categories in a dynamic process of reasoning, thinking and theorizing (Basit, 2003).

Data analysis process in this study followed these steps: 1) gathering data, 2) organizing data item, 3) coding, 4) recording, and 5) categorizing, conceptualization and abstraction. The data were analyzed in an attempt to answer the research questions. Below was a summary table displaying how each research question could be analyzed by nodes and codes/descriptors.

Table 1 Summary of research questions, nodes, codes and descriptors

Research Questions	Nodes	Codes/Descriptors
Research question 1: What are the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community and the country's national economy in the nexus among national and regional developments?	Significant impacts	Potential influences that have powerful effects on the success of specific objectives
	Prospective opportunities	Essential possibilities, benefits, advantages, usefulness, efforts, situations and something that substantially enhance and facilitate the success of specific objectives
	Potential challenges	Obstacles, efforts, situations, and something that powerfully impede the success of specific objectives as part of economic integration or that need great effort in order to be done successfully
Research question 2: What is the synthesis of significant insights, initiatives, and lessons gleaned from the best practices in education business across countries?	Insights	A clear, profound, and sometimes immediate understanding of complexity, complications, and changes
	Initiatives	New plans, processes or policies to achieve something created by a member country or organization

Table 1 (Continued)

Research Questions	Nodes	Codes/Descriptors
	Lessons	An experience or experiences from similar or different situations that make a better future
	Best practices	Successful models, useful treatments, or a set of working methods that is officially accepted as being the best to formally use in a particular business or industry, usually described in detail for practical application
Research question 3: What are the keystones for the future of education business in this region and recommendations for innovative policy and practices on education business for less developed member countries?	Keystones	The most important parts of an idea, plan, or essence on which everything else depends
	Recommendations	Conspicuous ideas, advice, suggestions of strategies, actions, plans, and policies that are effective for achieving objectives or goals for the promising future of education business in this region

3.5 Reliability and Validity Check

This study had some delimitations. There were some constraints encountered in the compiling of this comparative analysis such as a lack of reliable data, inconsistent data from various sources, and incomparable data across sources. It was an obligation

to reduce the delimitations and construct reliability and validity check of the analysis. Below were major reliability and validity checks as well as other similar terms (such as triangulation, credibility, trustworthiness, dependability, and confirmability) in this analysis.

3.5.1 Reliability and validity check of sources

As this study was based on document analysis, the choice of documents was a priority for analysis. To check the reliability and validity, this study was designated to ensure every step of the research process, from the outset till the analysis as detailed below.

To construct qualitative credibility, this study preferred primary sources of data to secondary ones because they are official, authentic and more reliable. Although the secondary source of data only lent support to the analysis, various documents of this secondary source of data were compared for reliability check. If they were consistent, the documents are included into the analysis. In addition, wherever possible, the analysis relied on existing research or study reports available at data bases of the government sources or internationally comparable and officially accredited development organizations.

In case of online sources, if they were different from data provided by government sources, internationally comparable data had been used, complemented or verified by findings from reliable data bases (e.g., google scholar, development banks, academic and UN data sources) that had also been used extensively in order to provide a triangulated analysis.

As this study was a cross-national comparative analysis, several countries were compared. In such case, only countries with relevant data had been included in this analysis. Thus, not all ten ASEAN member countries were always included in the analysis of an issue. This analysis was based on availability of reliable data on the issue.

3.5.2 Reliability and validity check of terms

Terms were meaningfully defined and operational definitions of nodes were concretely and precisely detailed. Clearly defined terms could construct internal validity by guiding the researcher coding and analysis according to the defined terms. Research data were therefore genuine and free from researcher's assumptions. Clearly defined terms helped sustain the credibility of the research processes and findings. In

addition, confirmability was achieved in that data, concepts and categories that emerged from the analysis of one document was confirmed by another document within the same context.

3.5.3 Reliability and validity check of coding process

Credibility of qualitative research also relied on the authenticity of research processes. In this study, coding process were systematically planned. Data were coded and recorded in order to compare the consistencies of results. The coded and recoded data from other three experts were compared based on triangulation. (See the biodatas of the three experts in Appendix.)

In addition, dependability in qualitative research was achieved through periodic feedback and successive information gathering (Driessen et al., 2005). On data collection process, when time changes, there were changes in data and changes in data could cause changes in researcher' decision. In such cases, there may be inconsistency in the data (Graneheim & Lundman, 2004) and this inconsistency affected trustworthiness of data. Shenton (2004) suggested that dependability in such cases can be obtained if, after repeating the same study in the similar context with similar methods, the same results emerge. The present study would be dependable on Shenton's principle in that the same results would be achieved through periodic feedback and successive information gathering (Driessen et al., 2005).

3.6 Research Framework

This study was based on qualitative, interpretive and cross-national comparative analysis which involved exploring, reviewing, comparing, interpreting, analyzing, and making sense of the contents of the documents in relation to the purposes of the study. The design of the present study put it in the category of qualitative and interpretive research while comparing the data put it in the category of comparative research and comparing each issue and area within the region or across the globe puts this study in the category of cross-national comparative methods. The next page is the research framework of this study as shown in Figure 8 Framework of the study.

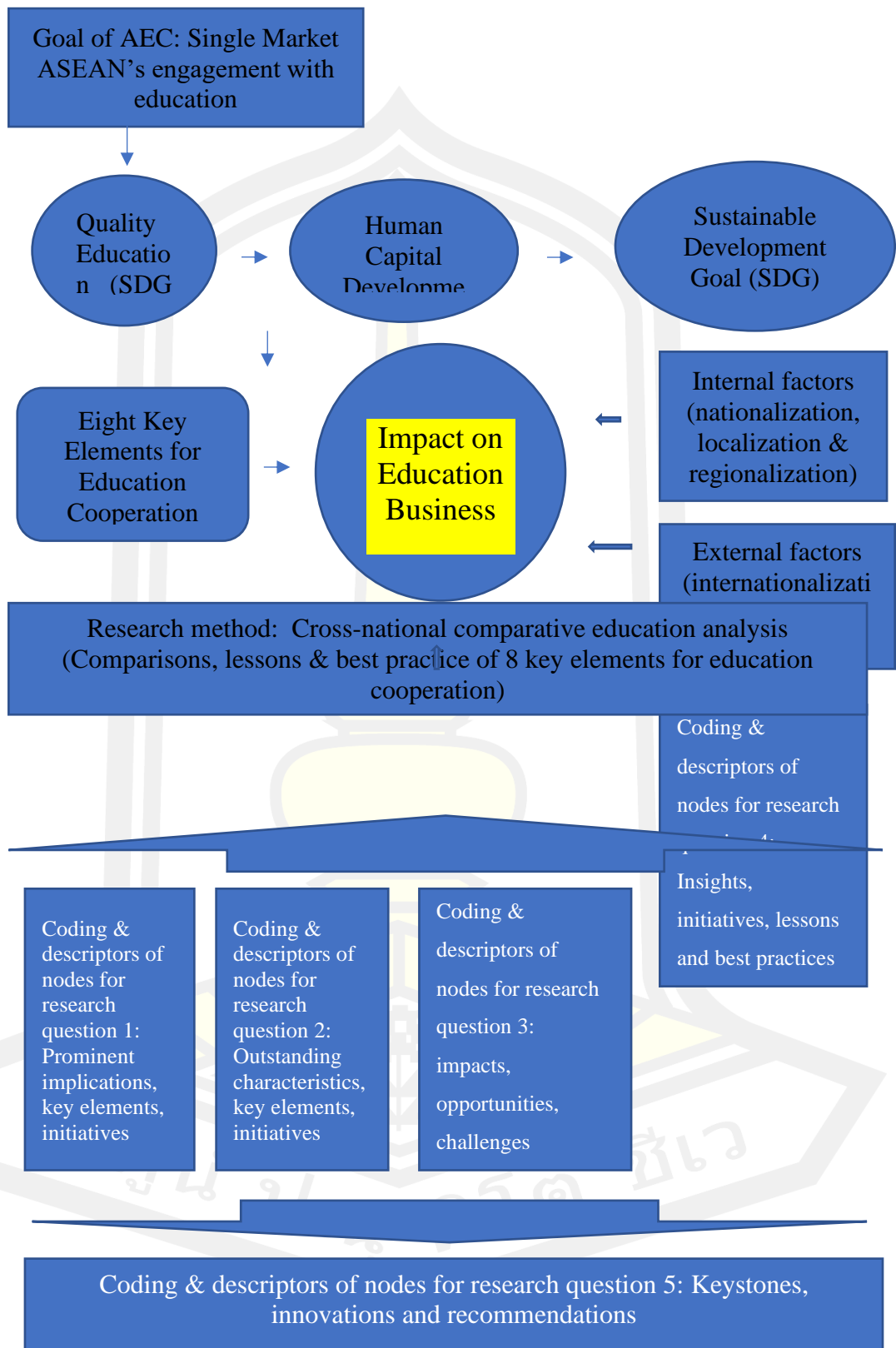


Figure 8 Research framework of the study

3.7 Summary of Research Method

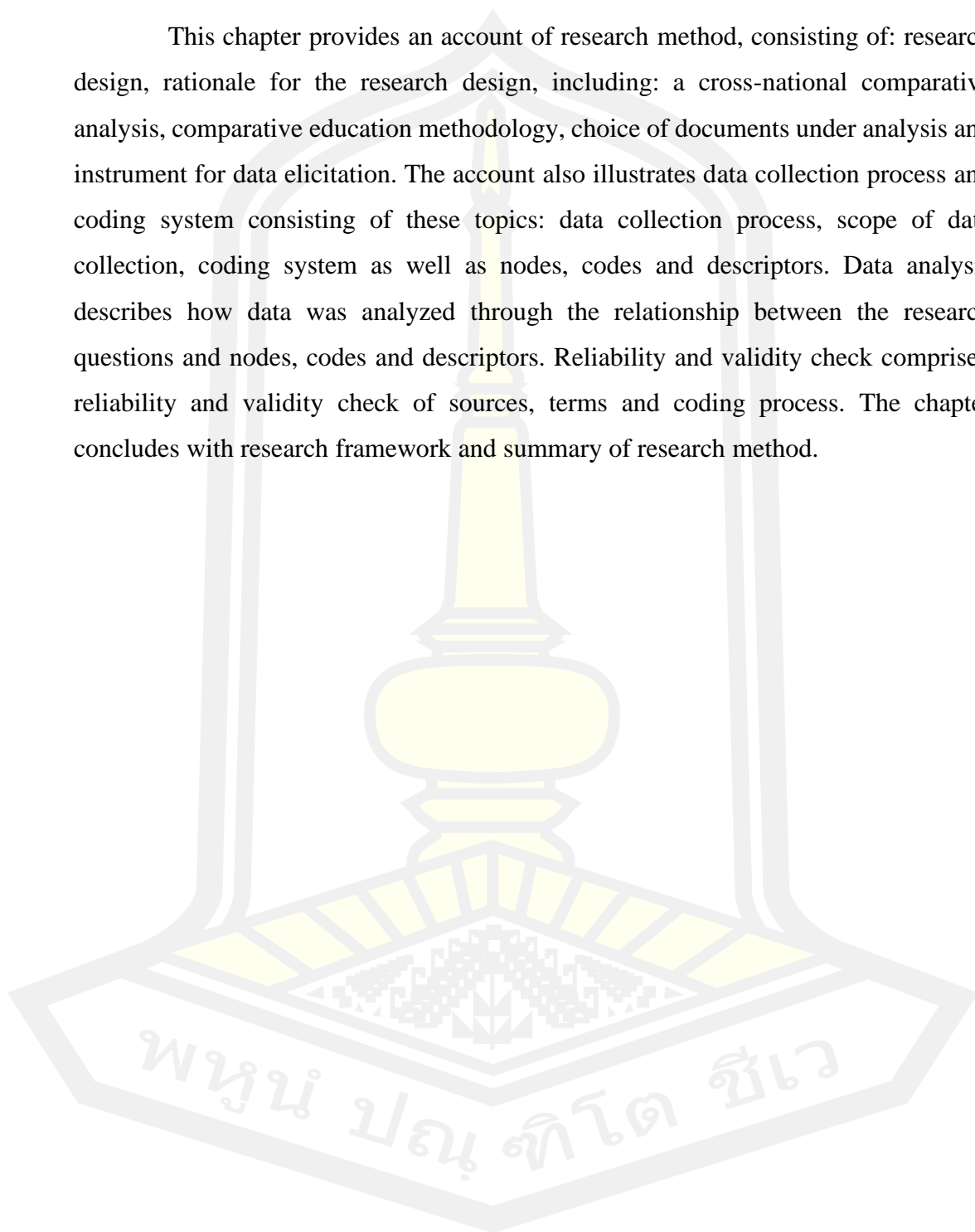
To recap essential components of the research method in this study, below is a summary of research questions, instruments for data elicitation, data analysis, and reliability and validity check as show in Table 2.

Table 2 Summary of purposes of the study, instruments for data elicitation, data analysis, and reliability and validity check

Research questions	Instruments	Data analysis	Reliability and validity check
1) What are the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community and the country's national economy?	Categorizing, reasoning, conceptualizing, summarizing related codes	Manually coding system based on consistency of results	Triangulation, credibility, trustworthiness, dependability, confirmability
2) What is the synthesis of significant insights, initiatives, and lessons gleaned from the best practices in education business across countries?	Interpretive, comparative analysis and synthesis	Manually coding system based on consistency of results	Triangulation, credibility, trustworthiness, dependability, confirmability
3) What are the keystones for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries?	Conceptualization, abstraction and summarizing	-	-

3.8 Conclusion of the Chapter

This chapter provides an account of research method, consisting of: research design, rationale for the research design, including: a cross-national comparative analysis, comparative education methodology, choice of documents under analysis and instrument for data elicitation. The account also illustrates data collection process and coding system consisting of these topics: data collection process, scope of data collection, coding system as well as nodes, codes and descriptors. Data analysis describes how data was analyzed through the relationship between the research questions and nodes, codes and descriptors. Reliability and validity check comprised reliability and validity check of sources, terms and coding process. The chapter concludes with research framework and summary of research method.



CHAPTER 4

Results and Discussion

4.1 Introduction

As this economic integration was gearing up to more closely regional connectivity and this would not only provide numerous promising opportunities but also pose potential challenges to the region, as well as the individual country members, it was necessary to consider the new development insightfully. Some crucial therefore arose: what are the key achievements and progress of AEC that offer opportunities and post challenges to the new development? What must ASEAN country members and their higher education business as a key driver to propel the AEC to its goal anticipate and respond to the key achievements and progress of AEC? To what extent has the higher education business in this region anticipated and responded to international trends in higher education? What insights and initiatives does it possess? What keystones and recommendations do ASEAN country members should consider?

To answer the questions, three research purposes of the study were therefore determined to: 1) analyze the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community and the country's national economy; 2) synthesize significant insights, initiatives, and lessons gleaned from the best practices in education business across countries; 3) highlight the keystones for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries in this changing context in relation to the education developments.

To realize the aim, a systematic analysis of documents (e.g., policy documents, research reports, and other publicly accessible information) was applied. The definitions of key terms (namely impacts, opportunities, challenges, and implications for higher education) were defined as a guideline for analysis in this study including: first, analyzing the opportunities that AEC offers and potential challenges that higher

education services have been facing in AEC engagement; second, synthesizing insights, initiatives, and lessons from the best practices in the region; third and lastly, highlighting the key implications for higher education services for less developed member countries.

In addition, a cross-national comparative analysis of documents was purposefully selected for intertwining contributions. This analysis explored phenomena across the ten countries with the aim to identify similarities and differences of selected issues to determine practical strategies. Comparison helped reach a greater scope of in-depth understanding and diverse perspectives regarding the issues under analysis to help improve HE performances with solid evidence. A management approach was also applied in order to draw a set of strategic vision for HE management in the areas where policy dialogue is critical for improving a HE performance and further discussions on envisaged policy implementation. This analysis was limited to the impacts of AEC from 2015 to 2020.

Data analysis process borrowed the approaches proposed by Remler and Van Ryzin (2011). Drawn upon these studies, the coding system in this study involved identifying and grouping data in the text that explained the same meaning or concept. The reliability and validity check were purposefully assigned to ensure every step of the process. To construct credibility, this study relied on primary sources and official, authentic, and reliable documents and secondary ones from various sources (if consistent) were supports for reliability check. Key terms were meaningfully defined for construct internal validity check. Confirmability check was achieved through consistency of various documents within the same context. Coding process was systematically planned. The results of coding were compared by three experts based on triangulation to sustain construct reliability and validity check.

4.2 Results of the Study

4.2.1 Research question 1: What are significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC?

In response to the first research question, three key areas need to be addressed here: firstly, significant impacts refer to potential influences that have powerful effects on the success of specific objectives; secondly, prospective opportunities involve essential possibilities, benefits, advantages, usefulness, efforts, situations and something that substantially enhance and facilitate the success of specific objectives; and thirdly and lastly, potential challenges include obstacles, efforts, situations, and something that powerfully impede the success of specific objectives as part of economic integration or that need great effort in order to be done successfully. Based on the key areas, the contents below consist of three topics: significant impacts, prospective opportunities and potential challenges.

4.2.1.1 Significant impacts

AEC has had significant impacts on education business of ASEAN countries. The education business in this region is gearing toward a new direction in response to the goals of AEC. The impacts on the education business are mainly due to key achievements of the four aspects. To understand the impacts, the four aspects will be presented and then followed by their key achievements.

4.2.1.1.1 Four AEC aspects

The blueprint of ASEAN economic integration consists of four key aspects or goals which aim to create: 1) a single market and production base, 2) a highly competitive economic region, 3) a region of equitable economic development, and 4) a region of fully integrated into the global economy. The four key aspects are shown in Figure 9

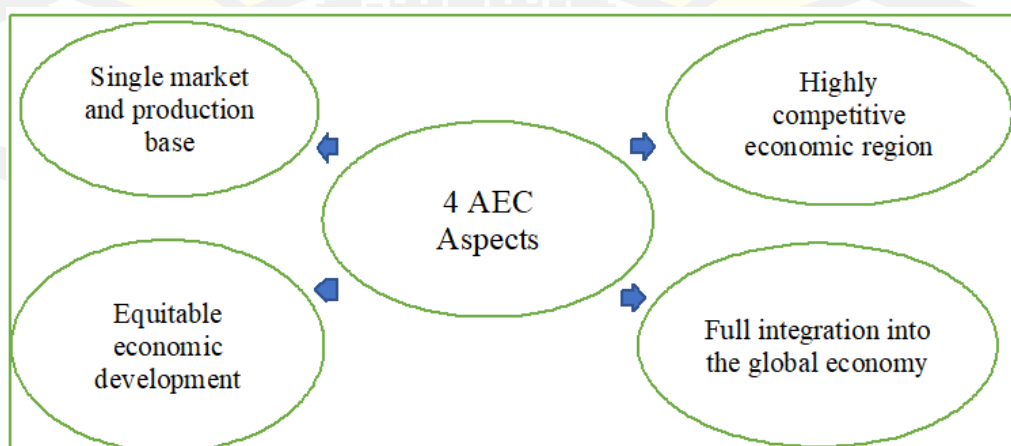


Figure 9 Four AEC aspects

These four pillars are interrelated and mutually-reinforcing aspects have their own objectives. The first AEC pillar seeks to create a single market and production base through free flow of goods, services, investment, skilled labor and freer flow of capital. Cumulatively, these aim for a more liberalized market that provides its population with greater opportunities to trade and do business within the region, with reduced trade costs and improved investment regimes that make ASEAN a more attractive investment destination for both international and domestic investors.

The second pillar seeks to create a highly competitive economic region. This pillar aims to create a business-friendly and innovation-supporting regional environment. This can be achieved through the adoption of common frameworks, standards and mutual co-operation across many areas, such as in agriculture and financial services, and in competition policy, intellectual property rights, and consumer protection. This pillar also aims to support improvements in transport connectivity and other infrastructure networks; these have facilitated cross-border transportation and contributed to reducing overall costs of doing business and at the same time providing ASEAN people and businesses with better opportunities to work together more productively. Such developments provide the impetus to start new businesses, expand the existing market base, encourage strategic sourcing of goods and services within the region as well as create employment.

The third pillar seeks to achieve sustainable and balanced growth and development through equitable economic development. This is done through creative initiatives that encourage SMEs to participate in regional and global value chains, and focused efforts to build the capacity of the ASEAN's newer member states to ensure their effective integration into the economic community.

The fourth and final pillar aims at ASEAN's full integration into the global economy. This can be achievable through a coherent approach towards external economic relations, including through free trade areas and comprehensive economic partnership agreements, and enhanced participation in global supply networks.

The objectives of the four aspects have already been partially achieved on many fronts as shown in the next part.

4.2.1.1.2 Key achievements of the four AEC aspects

Progress of the four aspects have been implemented as summarized in the table below.

Table 3 Summary of progress of the four aspect

Progress of AEC	Percent (%)
1) A single market and production base	92.4
2) A highly competitive economic region	90.5
3) Equitable economic development	100
4) Fully integrated into the global economy	100

(Source: https://www.miti.gov.my/miti/resources/AEC_2015_Progress_and_Key_Achievement.pdf?mid=424)

Table 3 shows that the four aspects have progress significantly. Equitable economic development (aspect 3) and fully integrated into the global economy (aspect 4) have been fully implemented while a single market and production base (aspect 1) and a highly competitive economic region (aspect 2). This indicates that the four aspects of AEC are almost completely achieved.

The key achievements of the progress have widened the four aspects in several areas as summarized as seen in Figure 10.

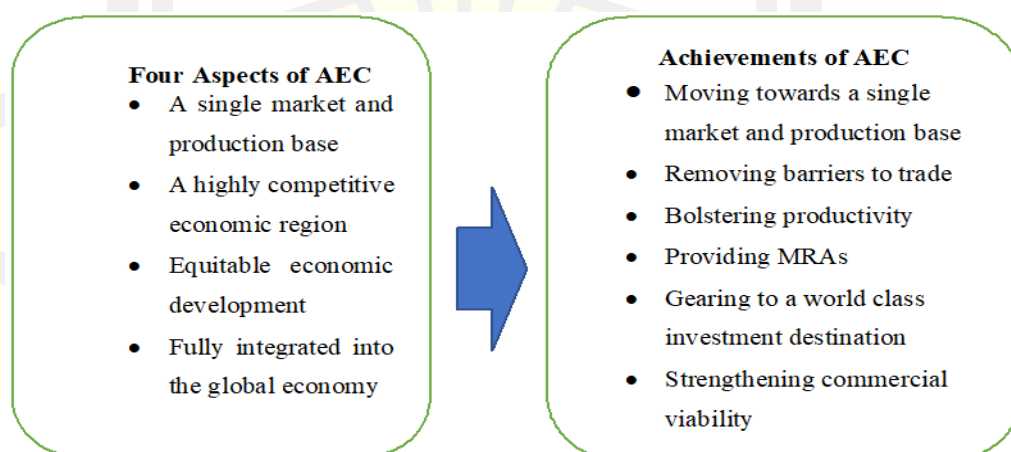


Figure 10 Four Aspects of AEC and Achievements of AEC

Figure 10 illustrates the four aspects of AEC and their achievements. First, moving towards a single market and production base consists of free flow of goods, services, investment, skilled labor and freer flow of capital. Second, removing barriers to trade through facilitative standards and conformance includes mutual recognition arrangements (MRAs), along with harmonization of standards, technical requirements and development of guidelines. Third, bolstering productivity through skills mobility aims to build capacity in skills by facilitating the free flow of skilled labor across the region, taking into account domestic regulations, and market demand. Fourth, providing mutual recognition arrangements Mutual Recognition Arrangements (MRAs) is crucial policy tools for skilled labor mobility, facilitates trade by mutual recognition among the Member States for professionals that are authorized, and licenses or certified by the respective authorities. The eight MRAs comprise engineering services, nursing services, architectural services, framework for surveying qualifications, medical practitioners, dental practitioners, the framework for accounting services, and tourism professionals. Fifth, gearing to a world class investment destination is increasingly common for existing and would-be investors, facilitated – among other factors – by the region’s framework for enticing investors and helping businesses operate in the region. Sixth, strengthening commercial viability Nothing demonstrates the potential of the AEC more than evidence of commercial viability which provides both multinationals and SMEs with both region-wide and local-market opportunities for creating prosperous regional and international businesses.

The achievements offer opportunities, HE needs to focus on the progress and achievements of AEC post-2015 which can be summarized as shown in Table 4

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Table 4 A summary of the post-2015 AEC progress

Characteristics of the post-2015 AEC	Progress and achievements
Integrated and Cohesive Economy	Trade in goods, trade facilitation, customs cooperation, standards and conformance, trade in services
Competitive, Innovative, and Dynamic ASEAN	Well-functioning markets, rules on competition, intellectual property (IP)
Connectivity and Sectoral Cooperation Enhancement	ICT, electronic commerce (e-commerce), energy, tourism Food, Agriculture, and Forestry (FAF) Science and Technology (S&T)
A Resilient, Inclusive, People-Oriented, and People-Centered ASEAN	MSMEs, such as the ASEAN Online Academy (ASEAN-OA), ASEAN Business Incubator Network (ASEAN-BIN) and the ASEAN Mentorship for Entrepreneurs (ASEAN-ME) Free Trade and Investment Agreements
Enhancing External Economic Relations	A Work Plan for AANZFTA Upgrade Negotiations The ASEAN-Japan Comprehensive Economic Partnership (ASEAN-JCEP) by all AMS to incorporate the chapters on services, investment, and Movement of Natural Persons
The Fourth Industrial Revolution	The Fourth Industrial Revolution (4IR)

(Adapted from AEC, 2017, p.2)

4.2.1.2 Prospective opportunities

Prospective opportunities of AEC to all business sectors in terms of economic growth in general and specifically to HE in the region. Below are the details of each form.

Table 5 Comparisons of normal GDP of ASEAN economies (2010-2018)

Country	Nominal GDP		
	USD billion		
	2010	2015	2018
Brunei Darussalam	13.7	12.9	13.6
Cambodia	11.2	18.1	24.6
Indonesia	710.1	855.0	1,041.6
Lao PDR	6.8	14.4	18.1
Malaysia	250.8	299.5	358.4
Myanmar	41.0	59.8	77.3
Philippines	200.0	292.5	342.7
Singapore	239.8	308.0	364.1
Thailand	341.5	401.7	505.1
Viet Nam	116.3	193.6	241.0
ASEAN	1,931.2	2,455.6	2,986.4

(Adapted from ASEAN Secretariat (as of September 2019), p 30.

Table 5 presents a comparison of normal GDP among ten ASEAN countries ASEAN economies from 2010 to 2018. The figures indicate that the overall normal GDP of the region has increased significantly from 2010 before the regional; integration in 2015 and has doubled in 2018. In details, the normal GDP of each country shares similar trends as that of the region.

Table 6 Rank, value and global share of selected indicators (2010-2018)

Indicator	Rank			Value (USD billion)			Global Share (%)		
	2010	2015	2018	2010	2015	2018	2010	2015	2018
Nominal GDP	6	5	5	1,931.2	2,455.6	2,986.4	2.9	3.3	3.5
Trade in Goods	4	4	4	2,001.4	2,272.9	2,817.4	6.5	6.8	7.2
Exports	4	4	4	1,049.0	1,171.7	1,432.6	6.9	7.1	7.3
Imports	4	4	4	952.4	1,101.1	1,384.8	6.2	6.6	6.9
Trade in Services	3	4	4	439.2	640.2	778.6	5.7	6.5	6.8
Exports	3	3	3	213.8	317.9	404.9	5.5	6.4	6.9
Imports	3	4	4	225.4	322.3	373.8	5.9	6.6	6.7
FDI Inflows	4	5	3	108.2	118.7	154.7	7.9	5.8	11.9
Outflows	5	8	6	63.3	69.0	69.6	4.6	4.1	6.9

(Sources: ASEAN figures are from ASEAN Secretariat (as of September 2019); Global GDP is from IMF (2019b; 2019c); Global Trades, Global FDI and ASEAN FDI Outflow are from UNCTAD (2019a)).

Table 6 presents ASEAN rank, value and global share of selected indicators of ASEAN economy (2010-2018). The ranks of FDI inflows and outflows have increased. The values of all selected indicators have also risen up. The global shares of all indicators have increased significantly from 2010 to 2015 and 2018.

Table 7 Nominal GDP of agriculture, industry and service (2010-2018)

	Nominal GDP, USD billion								
	2010	2011	2012	2013	2014	2015	2016	2017	2018
Agriculture	12.0%	11.9%	11.5%	11.6%	11.5%	11.1%	10.7%	10.5%	10.3%
Industry	37.7%	37.1%	36.9%	37.5%	37.4%	37.1%	37.0%	35.8%	36.6%
Service	48.7%	40.5%	50.2%	40.4%	49.7%	40.2%	49.5%	49.7%	50.1%
Balancing item	1,931	2,251	2,392	2,502	2,534	2,456	2,581	2,785	2,986

(Sources: ASEAN Secretariat (as of September 2019))

Table 7 presents nominal GDP of agriculture, industry and service (2010-2018). The balancing item has risen continuously from 2010 to 2018. However, there are major differences. The agricultural and industrial sectors have decreased consistently. Only the service sector has risen, though continually. This indicated that the service sector is the most promising sector that HE should pay close attention to because trade in services is considered a new engine for growth in ASEAN, services continue to be an important and growing economic sector in the region. The service sector contributed 50.1% of the region's total GDP in 2018, which made it the largest component of ASEAN GDP.

It is necessary to look into the details of the three sectors. The next table verifies the potentials of the service sector.

Table 8 Output of real GDP and employment in ASEAN sectors: agriculture, industry and services

Country	Output			Employment	
	% of Real GDP (2018)			% of Women Employment (2018)	
	Agriculture	Industry	Services	Industry	Services
Brunei	0.8	62.9	38.0	9.0	90.5
Cambodia	16.3	32.1	43.1	24.7	44.9
Indonesia	12.5	39.8	43.6	17.0	55.5
Lao PDR	15.4	37.9	42.1	6.5	23.7
Malaysia	7.3	37.5	54.0	19.6	73.8
Myanmar	24.6	32.1	43.2	15.3	39.8
Philippines	8.1	34.1	57.8	9.8	75.9
Singapore	0.0	25.1	68.9	11.8	88.0
Thailand	6.2	35.4	59.9	20.0	50.9
Viet Nam	14.3	35.6	38.8	21.7	37.2

(Adapted from ASEAN Secretariat (as of September 2019), p 30.)

Table 8 shows the output of real GDP and employment ASEAN services sector compared to agricultural and industrial sectors. Compared to other two sectors, the sum

of the real GDP shares of services makes up nearly half of the real output. Countries that received higher shares were Singapore (68.9%), Thailand (59.9%), Philippine (57.8%), and Malaysia (54.0%) respectively. Compared to the industrial sector, the sum of the women employment accounts for more than half of employed workforces in every country, some of which received higher shares such as Brunei Darussalam (90.5%), Singapore (88.0%), Philippine (75.9%), and Malaysia (73.8%) respectively.

Thus, HE should focus on these prospective opportunities of the of services sector. Above all, HE in the ten countries should pay more attention to the services sector education than agriculture and industry education. The countries with higher shares (namely Singapore, Thailand, Philippine and Malaysia) may optimize more opportunities from the services sector.

In addition, women workforce in all countries, especially the workforce in countries with higher shares (namely Brunei Darussalam, Singapore, the Philippines, and Malaysia) have higher job opportunity in the services sector than the industrial sector. HE in Singapore, Thailand, Philippine, Malaysia, and Brunei Darussalam should prepare their students for intraregional skilled labor mobility by providing knowledge and work-related skills as required by the regional standards, revolving around services sector labor mobility provisions, especially MRAs which allow to work outside their home country.

In details, values and shares of service trade that AEC offer might shed some lights to the types of sub sectors that HE may have a closer look into as shown in Table

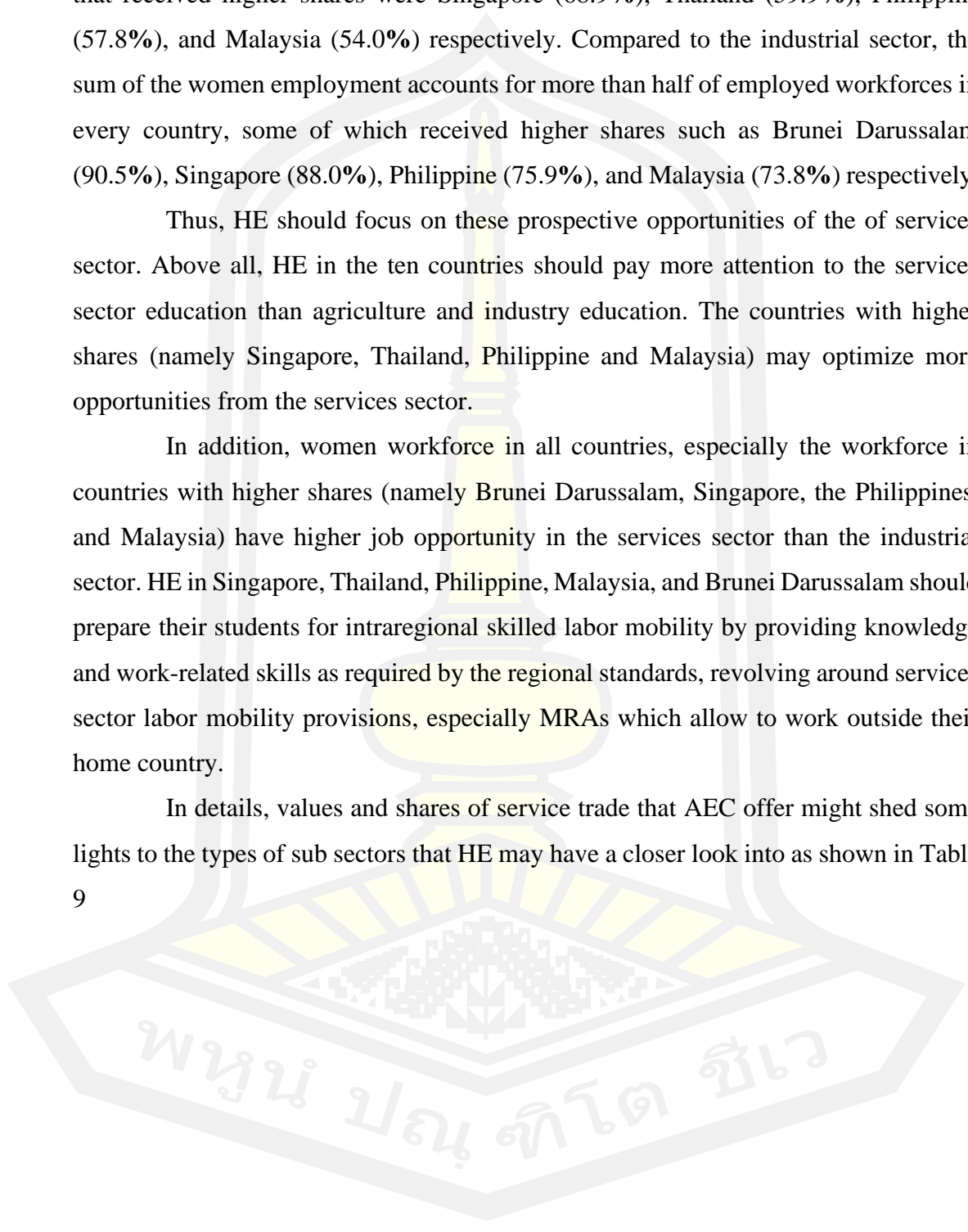


Table 9 Services sector in ASEAN and selected indicators

Sector	ASEAN Service Trade				Intra- ASEAN Service Trade			
	Value, USD billion		Share to Total ASEAN, in %		Value, USD billion		Share to Intra-ASEAN, in %	
	2010	2018	2010	2018	2010	2018	2010	2018
Manufacturing on physical inputs	5.8	24.3	1.3	3.1	0.8	3.3	1.0	2.7
Maintenance and repair	7.8	9.9	1.8	1.3	1.0	1.1	1.3	0.9
Transport	134.5	190.1	30.6	24.4	16.7	20.8	20.7	17.0
Travel	114.7	217.9	26.1	28.0	39.8	54.4	49.2	44.5
Construction	7.0	8.2	1.6	1.1	1.3	2.1	1.6	1.7
Insurance and pension	12.0	18.5	2.7	2.4	1.8	3.8	2.3	3.1
Finance	17.8	40.0	4.1	5.1	1.7	2.9	2.1	2.4
Charges for the use of intellectual property	25.7	34.8	5.9	4.5	0.9	1.8	1.1	1.4
TCI	17.0	48.5	3.9	6.2	3.4	6.8	4.2	5.6
Other business	92.0	179.3	20.9	23.0	12.8	23.9	15.9	19.6
Personal, cultural, and recreations	1.6	3.4	0.4	0.4	0.3	0.8	0.3	0.7
Government goods and services	3.2	3.8	0.7	0.5	0.3	0.4	0.4	0.3
Total	439.2	778.6	100.0	100.0	81.0	122.1	100.0	18.4

(Adapted from ASEAN Secretariat (2019), p 33)

Table 9 shows value and share of selected indicators of ASEAN services trade and intra- ASEAN service trade, in 2010 and 2018. Overall, the values increased in all sectors. For trade in service, the sub-sector shares increased in these sectors: manufacturing services; maintenance and repair; travel; finance; telecommunications, computer, and information; and other business. For intra-ASEAN services trade, the sub-sector shares to total ASEAN increased in these sectors: manufacturing on physical inputs; insurance and pension; finance; charges for the use of intellectual property;

telecommunications, computer, and information; other business; and personal, cultural, and recreations.

Therefore, HE should prepare for these sub-sectors of services sector to gain the most opportunities from AEC. In addition, HE needs to find solutions to potential challenges of AEC in order to maximize the opportunities as referred to in the next section.

4.2.1.3 Potential challenges

Despite of significant progress, it is still a long way for several member countries to achieve this economic paradigm shift as higher education in the states is facing challenges. Potential ones fall into three groups, including: quality of education, gradients of higher skill demand, and the width of digitalization.

4.2.1.3.1 Quality education

A. Difference in quality

Differences in quality of education, teaching standards, research capability, expertise across the regions, and education systems among institutions within some countries remain high. All these factors deepen the barriers of student mobility between the original country and the destination across the countries. This negatively affects the labor mobility in the long term.

B. Quality assessment

Quality assessment is vital to finding solutions that will improve efficiency of higher quality of education. It is important that the qualitative assessment should not be conducted with the sole financial issue of being taken into account or primarily related to an aspect of the overall functioning of the institution which facilitates quantitative measurement in the form of quality indicators. Attention should be given to the observance of the principles of academic freedom and institutional independence. However, those principles should not be applied to counteract necessary changes or to conceal narrow interpretations of organizational attitudes and the misuse of privileges that may adversely affect the functioning of higher education.

C. Quality enhancement

This should begin with and be actively involved with the teaching and research staff received which is an important role in the activities of higher education institutions. Human resource development policies, especially those relating to

recruiting and promotion, should be based on clear principles and clearly defined objectives. The policies should emphasize the need for initial training and in the service of academic staff and for more rigorous mechanisms in the selection and training of staff for administration and management at the tertiary level.

D. Quality of students

Student quality is a big issue, especially in view of cross-border enrollment, diverse study programs, and today's higher level of education funding. Under these conditions, governments and higher education institutions adopt various solutions. There is a general opinion that the quality of higher education students largely depends on the aptitudes and motivation of those leaving secondary education, so it is imperative to recheck such issues as the connection during higher education. Student counseling and orientation, including the need to promote the concept of social responsibility among students, especially those who benefit from public support.

E. Quality of physical and academic infrastructure

The quality of the physical and academic infrastructure of higher education is important for teaching, research, service duties, and institutional culture that is indispensable for the integration of highly diverse and often geographically dispersed higher education institutions. Infrastructure investments, from access to universities, research laboratories and libraries to information highways, should be viewed as public works as an integral part of overall efforts to modernize the infrastructure connected to the economy.

F. Student and faculty exchange

Additional programs with scholarships are currently being offered to students from all regions in most ASEAN countries. The aim of this scholarship is to provide opportunities for youth in ASEAN to develop their potential and equip them with confidence to confidently enter the wider community. Another way of improving the quality of education is by enhancing the education of teachers, academics and other educational personnel and enhancing professional competence to be able to lead a program focused on talent management and leadership selection and should also review the workload of teachers and professors. It can offer initiatives ranging from faster promotion opportunities to award winning, to acknowledge the roles of teachers and

academics and to boost morale, thereby enhancing the image of the teaching and academic professions.

G. Integrated education framework

Intergovernmental organizations are required to create ASEAN standards for higher education institutions, including courses. Therefore, the courses and delivery models in all programs are still in the process of being adjusted to meet the needs of the labor market. Therefore, it is recommended that the ASEAN region achieve the desired goals of one community.

H. Updating the content of interdisciplinary and multidisciplinary studies

The new mission of the higher education business should be based on the renewal of teaching and learning. It is essential to increase relevance and quality and call for the introduction of programs that develop students' cognitive abilities to improve the content of interdisciplinary and multidisciplinary studies and the use of delivery methods that specifically enhance the higher learning experience, even in terms of rapid progress in information and communication technology and digital economy.

I. Research

Research is one of the major functions of higher education and a fundamental factor for its social relevance and academic quality. The educational benefits of research-related activities are often underestimated. The higher education business should be viewed as an indispensable ally in promoting this function.

J. Development of higher education quality

Regional approaches to the relationship between the quality of higher education and development need to be shifted, with a focus on research quality, which has led to institutional quality assurance in some regions while, in others, postgraduate students to improve the quality of the national research and development.

K. Professional education and job training

In recent years, there have been significant changes in the delivery of doctoral studies in ASEAN. The impetus for national capacity-building and economic competitiveness at the national, regional and global level has led to a strong focus on the career readiness of new graduates, especially at the postgraduate level.

4.2.1.3.2 High skill demand

In response to employer concerns about the employment-focused practical skills of new graduates, many universities have developed new administrative structures and doctoral schools to encourage the broader development of skills for students, especially research students. The ASEAN League Research University should highlight the transition to a structured doctorate in universities across the region. This new form of doctoral training continues to focus on the production of a thesis based on original research. It also combines formal research training along with additional courses on topics such as leadership and organizational management, conferences and communicating expert ideas to a non-expert audience. Formal training - both for professionals and transferable skills – needs to be designed to better prepare students for a wide range of careers both within and outside the academy. The following are issues that need to be taken into consideration.

A. Regional skills competition

Higher education institutions need to be encouraged to participate in skills competitions, such as the ASEAN Skills Competition, to support labor development and to achieve competencies according to regional standards. This will contribute to the quality and skill enhancement of workers in all ASEAN countries according to the professions as required by MRAs.

B. Shortage of skilled workers

ASEAN countries need to improve the quality of their educational systems as many graduates lack the skills required in today's rapidly changing workplaces. There is a shortage of skilled workers in the region, both men and women. More than that is a significant bottleneck in economic and social development. There is a need to focus more on the technical training.

C. Regional certification

Accreditation is very important in higher education. It is seen as both a process and a result. It is a process by which a university assesses educational activities and seeks independent judgments to confirm that significant objectives are achieved and are generally of comparable quality. Institutions, for this reason, are a form of accreditation or formal granting of status by quality accreditation bodies that are

recognized and authorized to educational institutions because they have some higher and higher quality standards. It is the minimum requirement by the government.

D. Higher MRA work-related skill demand

Globally and regionally connected economic progress demands higher work-related skills. Higher education needs to promote timely upskill, reskill, and on-demand trainings as required by MRA certifications of qualifications and regional standards conducive to AEC provisions. As AEC is developing into the global economy, gradients of higher and more highly qualified graduates are on rising demand. Traditional higher education where the local or first languages are a primary means of communication urgently needs to prepare for international programs and TNE. Intraregional skilled labor mobility may be the most tangible benefit for the peoples. To maximize this opportunity, higher education should revolve around labor mobility provisions, especially MRAs which allow to work outside their home country.

Currently, MRAs allow for 8 professional services, i.e., accountancy, architecture, engineering, dental practitioners, medical practitioners, nursing, tourism professionals, and surveyors. ASEAN also allows for thirty-two tourism-related professions. Higher education needs to follow the mainstream of ASEAN and commits to quality education and MRA-covered standards and other areas of interest to ASEAN. The provisions for free flow of goods and services offer considerable opportunities for the peoples and higher education across the region. The service sector contributes between 40 and 70 percent of the total national income of the ASEAN economy. This underscores the importance of service to ASEAN (World Bank, 2015, p. 15). Higher education benefits from ensuring the quality education, building the capacity and provide upskills and reskills of graduates as required by portable certification of qualifications or in crucial areas. These include e-commerce, energy, FAF, healthcare, ICT, minerals, Micro, Small and Medium Enterprises (MSMEs), tourism, transportation, and science and technology.

E. Increase English proficiency

Language is the key to the development of the world community. Workers should recognize the importance of the ability to communicate in English as a vital tool for advancing the ASEAN Community 2015 so as not to disadvantage them but benefited from the results of the ASEAN Community.

Globally and regionally connected economic progress demands higher work-related skills. Higher education needs to promote timely upskill, reskill, and on-demand trainings as required by MRA certifications of qualifications and regional standards conducive to AEC provisions. As AEC is developing into the global economy, gradients of higher and more highly qualified graduates are on rising demand. Traditional higher education where the local or first languages are a primary means of communication urgently needs to prepare for international programs and TNE.

4.2.1.3.3 Challenges in digitalization

ICT is the key to quality education and skill development. However, ASEAN has the width in digitalization which becomes a major challenge to AEC progress, especially digital economy as well as quality education and skill development. ICT is the major trend for education but ICT is the major challenge in this region due to economic differences among the countries as shown in the following table.

Table 10 Country classification based on income level and ICT trends

Trend	Country classified by income level		
	High income	Middle income	Low or lower middle income
Positive	Singapore		Cambodia
Negative		Indonesia, Malaysia, Philippines, Thailand, Viet Nam	Myanmar
No significant trend	Brunei		Lao PDR

(Adapted from UIS (2014))

Table 10 shows classification of ASEAN countries based on income level and ICT trends. The income levels fall into three groups: high-income countries (Singapore and Brunei), middle-income countries (Indonesia, Malaysia, Philippines, Thailand and Viet Nam), and low-income countries (Cambodia, Myanmar and Lao PDR). In terms of trends, there are three groups: positive countries (Singapore and

Cambodia), negative countries (Indonesia, Malaysia, Philippines, Thailand, Viet Nam and Myanmar), and countries with no significant trend (Brunei and Lao PDR).

The differences mentioned above have great impacts on digitalization in two main ways as detailed below.

A. Width in digitalization

Access to the ICT education services is a key index of quality education as it facilitates education service efficiently. However, the access and differences in digitalization within ASEAN varies greatly are still wide as displayed in Table 11.

Table 11 Digital connectivity in AESAN countries

Country	Connectivity	
	Internet subscribers per 100 persons	Cellular phones per 100 persons
Brunei	94.6	131.9
Cambodia	40.0	119.5
Indonesia	39.8	119.8
Lao PDR	35.4	51.9
Malaysia	81.2	134.5
Myanmar	33.1	113.8
Philippines	73.1	110.4
Singapore	88.2	145.7
Thailand	56.8	180.2
Viet Nam	70.4	147.2

(Source: ASEAN Secretariat, UNICT)

Table 11 shows proportion of two key indexes of digital connectivity in AESAN countries: Internet subscribers per 100 persons and cellular phones per 100 persons. The gap between the country with the highest number of subscribers (94.6) and the lowest one (33.1) is wide. The majority of subscribers in Brunei Darussalam, Singapore, and Malaysia could access to the Internet three times higher than the minority of subscribers in Indonesia, Lao PDR, and Myanmar could access to the

Internet. The gap between the country with the highest number of cellular phones (180.2) and the lowest one (51.9) is also wide. The three highest cellular phone usage countries are Thailand, Viet Nam, and Singapore while the three lowest ones are Myanmar, Philippines, and Lao PDR.

Thus, leveraging digital connectivity is vital for HE mission. It should be noted that Singapore where the numbers of Internet subscribers and cellular phone usage are high lies on top of the best education destination in ASEAN and is considered as the world class university. Malaysia where the number of Internet subscribers is high becomes the best Transnational education (TNE) in the region. On the other hand, Lao PDR and Myanmar where the numbers of Internet subscribers and cellular phone usage are low lag behind other countries. These facts strongly support the relationship between the access to the ICT education services and quality education.

However, the access in digitalization within ASEAN varies greatly and this reflects when looking into reality in higher education in each country, the gap among the ten countries is even wider as shown in the next part.

B. Width in ICT in education

Access to the ICT education services is a key index of quality education as it facilitates education service efficiently. However, the access and width in **ICT in education** within ASEAN varies greatly are still wide as displayed in the table below.

Table 12 Proportion of Internet access in education (schools) in selected countries

Country	Percent
Cambodia	7
Philippines	12
Indonesia	42
Malaysia	91
Thailand	98
Brunei	100
Singapore	100

(Adapted from The Head Foundation, 2017)

Table 12 shows proportion of Internet access in schools in the selected countries, excluding Myanmar, Laos and Vietnam. The gap was very wide. All students in Brunei and Singapore could access to the Internet. The majority of students in Thailand and Malaysia could use the Internet in studies. Almost half of the students in Indonesia could gain access to the Internet while students in the Philippines and Cambodia had limited access to the Internet. These facts may explain why the educational and economic systems of the countries with high proportions of the Internet access developed more successfully than those of the countries with lower Internet access.

Recognizing the gaps, the 2015 Qingdao Declaration underscored the role of ICT (United Nations Educational, Scientific and Cultural Organization, 2015) in developing education systems more equitably and efficiently. ICT in regional education continue to be key challenges in ASEAN as highlighted by large international organizations such as United Nations Educational, Scientific and Cultural Organization (UNESCO, 2015, 2016), Southeast Asian Ministers of Education Organization (SEAMEO, 2010), and Asian Development Bank (ADB, 2009, 2011).

With respect to quality, ICT-related pedagogy can improve the challenges in quality of teachers, student achievement, deliveries of public education. In terms of equity, ICT technologies enable equitable access to quality education in slow economies. On efficiency, the application of ICT in education can ensure efficiency and capacity-building on-demand training and labor market needs.

4.2.2 Research question 2: What is the synthesis of significant insights, initiatives, and lessons gleaned from the best practices in education business across member countries?

Results of the study regarding this research question are concerned with these three points: significant insights, initiatives, and lessons gleaned from the best practices in education business across member countries. Significant insights refer to a clear, profound, and sometimes immediate understanding of complexity, complications, and changes. The most significant insight drawn from emerging trends in higher education and responses to the trends, gearing towards new visions and new forms (namely internationalization of education). Initiatives are defined as new plans, processes or policies to achieve something created by a member country or organization. In this

case, key initiatives are regional higher education cooperation and digital connectivity 3 dimensions of connectivity. Lessons that can be gleaned from the best practices in education business across member countries are Singapore and Malaysia.

4.2.2.1 Significant insights

To understand the significant insights of complexity, complications, and changes, higher education needs to look into recent development of higher education, especially emerging trends in higher education and response to the trends.

4.2.2.1.1 Emerging trends in higher education

Recent developments in higher education are diverse and often specific to regional, national and local contexts. One key indicator among the trends lies in the fact that education as well as knowledge has no longer be viewed as a set of skills, attitudes and values required for citizenship but has been viewed as an international commodity. Effective participation in the globally connected world is a vital part of the mutual benefit of any economic communities and consumers are often viewed as more of a must-buy item to create a skill set for use in the marketplace or products at multinational corporations, educational institutions, which have passed themselves into business. The impacts of knowledge and the role of citizenship in modern society are enormous, not only for the country but also for the region. The role of education as international commodity can be illustrated by destinations for outbound students in ASEAN countries.

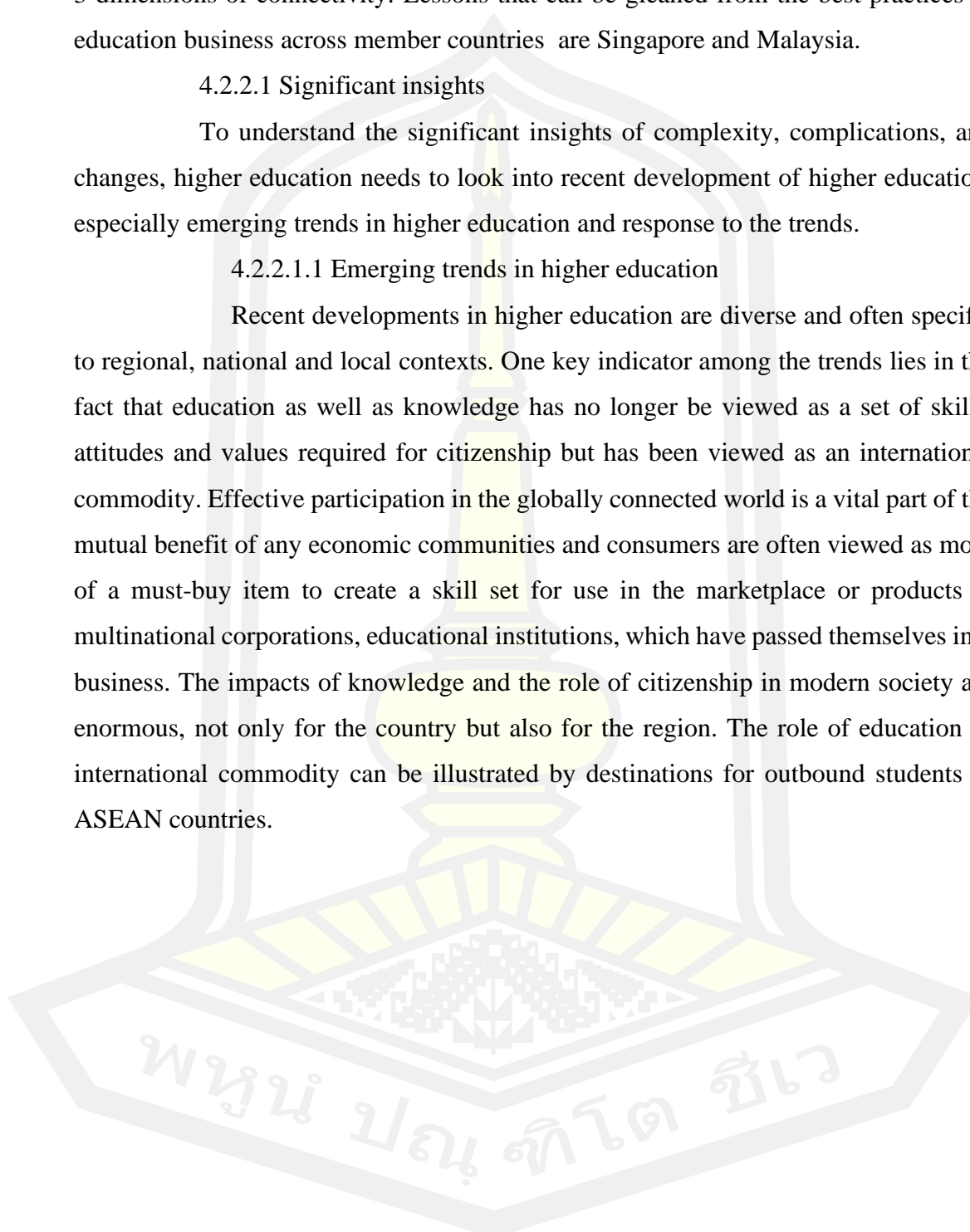


Table 13 Top 5 destinations for outbound students in ASEAN countries

Brunei	Cambodia	Indonesia	Lao PDR	Malaysia
1. UK	1. Thailand	1. Australia	1. Viet Nam	1. Australia
2. Australia	2. France	2. Malaysia	2. Thailand	2. UK
3. Malaysia	3. Viet Nam	3. USA	3. Japan	3. USA
4. NZ	4. Australia	4. Japan	4. Australia	4. Russia
5. USA	5. USA	5. Germany	5. France	5. Indonesia
Myanmar	Philippines	Singapore	Thailand	Viet Nam
1. Russia	1. USA	1. Australia	1. USA	1. USA
2. Thailand	2. Australia	2. NZ	2. UK	2. Australia
3. Japan	3. USA	3. USA	3. Australia	3. France
4. USA	4. Japan	4. Malaysia	4. Japan	4. Japan
5. Australia	5. NZ	5. UK	5. Malaysia	5. UK

(Source: Locating Malaysia's Place Within the Asean Higher Education Landscape: Current Status, Challenges, and Future Prospects MOHD ISMAIL ABD AZIZ AND DORIA ABDULLAH, UNIVERSITI TEKNOLOGI, MALAYSIA in Asia: The Next Higher Education Superpower?)

Table 13 shows that the majority of top 5 destinations for outbound students in ASEAN countries are countries of high-income economy where education provision is based on internationalization and the patterns of outbound student mobility across ASEAN. This indicates a huge outflow of students to international higher education markets, particularly Australia, the United States, the United Kingdom, and the greater European Union (EU) region, while Thailand and Malaysia are becoming notable intra-ASEAN destinations for cross-border education.

Internationalization is the trend that becomes more popular as shown through total enrollment and public expenditure on higher education in ASEAN as shown below.

Table 14 Comparative total enrollment and public expenditure on higher education in ASEAN

Country	Total Enrollment (%)	Public Expenditure on Higher Education (% GDP)
Brunei	8.11	N/A
Cambodia	223.60	14.5
Indonesia	5,364.62	18.9
Lao PDR	125.26	N/A
Malaysia	1,036.37	37
Myanmar	660.58	19.1
Philippines	2,625.63	12
Singapore	244.65	35.6
Thailand	2430.16	13.8
Viet Nam	2261.15	14.7

Table 14 shows comparative total enrollment and public expenditure on higher education in ASEAN countries. The public expenditure of Malaysia and Singapore doubled that of the other countries. It is noted that the higher education systems of these two countries are based on international and transnational education trends. This indicates the trends emerges as responses to AEC.

4.2.2.1.2 Response of higher education business to Trends

A. New visions and new forms

The ultimate goal of the AEC in this process of higher education transformation and development is the overall renewal and new vision of higher education learning and research incorporated into the concept of a 'proactive university' that adheres to the local situation but fully committed to the pursuit of universal truth and knowledge advancement. This will lead to the emergence of a new 'academic commitment', which will put higher education in all member countries in a better position to meet the current and future needs of sustainable human development.

In response to emerging trends, two new forms of higher education are knowledge-based international and transnational HE.

B. Knowledge-based international higher education

There is an international academic labor market with scholars and researchers across the border to find jobs on a regular basis. Perhaps most important of international higher education, the production and dissemination of knowledge has an international scope, with research teams collaborating across borders, and most scientific communication takes place in many ways. Across all ASEAN countries, there is evidence of policy commitment in the area of IHE. ASEAN nations also compare favorably overall to other countries from across the world where data is available. Given what was found in these reports it is not surprising to see Malaysia and Singapore in particular, and then Vietnam, Indonesia, Thailand and the Philippines scoring well across all the three categories in the National Policies Framework. There is also a robust commitment to knowledge-based international higher education in Singapore. These countries, while not all being the ones with the largest higher education systems in ASEAN, are those whose systems are generally the most developed across the core domains in higher education of learning/teaching and research. They also benefit from governments who, in relative terms, are most able to invest in higher education.

The other new form of higher education which is related to knowledge-based transnational higher education.

C. Knowledge-based transnational higher education

While higher education has always had an international dimension, with more than one million students studying abroad, and through a multinational collaboration between universities, transnational drive is a new development. There is a huge market for offshore educational programs as in many countries the demand for high school education is greater than supply. Combined with the ability to deliver programs worldwide through offshore campuses, partnerships with overseas institutions or through distance education, these institutions will not replace traditional universities. But there are things that new technologies and cross-border initiatives can do well. Policy makers have to understand the problem and the promise. Until now, everyone has longed to think the best of higher education, that is transnational one.

Global participation opportunities in higher education are not limited to regional mobile students. Transnational higher education and its collaborative research cooperation and partnerships are expected to continue growing through 2020. To identify future opportunities for transnational higher education, either through a joint or independent initiative, a number of key drivers which need to be considered include the total number and growth rate of higher enrolments, student mobility rates and a variety of potential hindrances to transnational higher education in the host country such as language, legal, and political issues. It is likely that the transnational higher education program will continue to be developed in the host country markets such as Malaysia and Singapore, especially when they target at ambitious, international students.

4.2.2.2 Initiatives

Major initiatives offered to enhance AEC and higher education in the region in order to drive the regional integration specifically relate to: a) institutional cooperation through ASEAN University Network (AUN) and other mechanisms and b) institutional connectivity.

4.2.2.2.1 Institutional cooperation

To maximize the opportunities offered by AEC, higher education must ensure the quality education, build the capacity, and promote timely higher work-related upskill, reskill, and on-demand trainings as required by MRA certifications of qualifications and regional standards conducive to AEC provisions. To do so, higher education in slow progress economies may seek cooperation offered by ASEAN such as ASEAN University Network (AUN) as shown in Table 15.

Table 15 Universities in ASEAN University Network (AUN)

Country	University
Brunei Darussalam	University of Brunei Darussalam
Cambodia	Economics and Royal University of Phnom Penh Royal University of Law
Indonesia	Universitas Gadjah Mada, Universitas Indonesia Institut Teknologi Bandung, Universitas Airlangga
Lao PDR	National University of Laos
Malaysia	National University of Malaysia, Prince University of Malaysia, Northern University of Malaysia, Science University of Malaysia, University of Malaya
Myanmar	University of Yangon, Yangon University of Economics, University of Mandalay
Philippines	University of the Philippines, De La Salle University, Ateneo de Manila University
Singapore	National University of Singapore, Singapore Management University, Nanyang Technological University
Thailand	Mahidol University, Chulalongkorn University, Chiang Mai University, Prince of Songkla University, Burapha University
Viet Nam	Vietnam National University in Hanoi, Ho Chi Minh City

(Association of Southeast Asian Nations, 2012) Adapted from AEIB intra-ASEAN student mobility

Table 15 shows the network among universities under ASEAN University Network (AUN) as offered to enhance education cooperation which higher

education in slow progress economies can learn lessons from. Figure 8.1, Indonesia, the Philippines, Thailand, and Vietnam recorded high enrollments in their higher education systems, with Indonesia and the Philippines having greater enrollments in the private higher education sectors. On the other hand, Singapore and Malaysia allocated the highest public expenditure for higher education among the 10 member countries.

To ensure the quality education for the economic transformation, prepare for intra-ASEAN student mobility, and tackle with a regional changing landscape and challenges,

Higher education in slow progress economies may develop cooperation that widens restricted access for academics to the regional professional and academic assistance due to demographic and other differences among countries. This cooperation will also build up unified standards in higher education system. In details, higher education in slow progress economies may seek collaboration with a specific focus on disciplines as shown in Table 16.

Table 16 Top ASEAN universities in publication growth rate and in-region collaboration in selected countries

Discipline	Highest publication growth rate	Highest in-region collaboration
Agricultural and biological sciences	Universiti Malaya (MAL) Universiti Sains Malaysia (MAL) Universiti Putra Malaysia (MAL) Universiti Teknologi Malaysia (MAL)	Chiang Mai University (THAI) Chulalongkorn University (THAI) Universiti Putra Malaysia (MAL) Kasetsart University (THAI) Universiti Sains Malaysia (MAL) Universiti Malaya (MAL)

Table 16 (Continued)

Discipline	Highest publication growth rate	Highest in-region collaboration
Biochemistry, genetics, and molecular biology Chemistry	International Islamic University Malaysia Universiti Malaya (MAL) Universiti Putra Malaysia (MAL) Universiti Sains Malaysia (MAL) Universiti Teknologi Malaysia (MAL) Universiti Malaya (MAL) Universiti Putra Malaysia (MAL) Universiti Teknologi Malaysia (MAL) Universiti Kebangsaan Malaysia (MAL)	Universiti Malaya (MAL) Universiti Sains Malaysia (MAL) Prince of Songkla University (THAI)
Computer sciences	Universiti Putra Malaysia (MAL) Universiti Teknologi Malaysia (MAL) Universiti Kebangsaan Malaysia (MAL)	
Earth and planetary sciences	Nanyang Technological University (SIN) Universiti Putra Malaysia (MAL)	

Table 16 (Continued)

Discipline	Highest publication growth rate	Highest in-region collaboration
Economics and business science	Universiti Malaya (MAL) Universiti Putra Malaysia (MAL) Universiti Sains Malaysia (MAL) Universiti Kebangsaan Malaysia (MAL)	
Engineering	Universiti Malaya (MAL) Universiti Malaysia Pahang (MAL) Universiti Putra Malaysia (MAL) Universiti Kebangsaan Malaysia (MAL) Universiti Teknologi Malaysia (MAL)	
Multidisciplinary	Universiti Malaya (MAL) Chiang Mai University (THAI) Universiti Sains Malaysia (MAL) Universiti Putra Malaysia (MAL) Universiti Teknologi Malaysia (MAL) Universiti Kebangsaan Malaysia (MAL) Universiti Malaysia Pahang (MAL)	Universiti Malaya (MAL) Universiti Putra Malaysia (MAL) Universiti Kebangsaan Malaysia (MAL) Universiti Teknologi Malaysia (MAL) Universiti Sains Malaysia (MAL)

Table 16 (Continued)

Discipline	Highest publication growth rate	Highest in-region collaboration
	International Islamic University Malaysia (MAL)	
Other life and health sciences	Universiti Putra Malaysia (MAL)	Mahidol University (THAI) Universiti Putra Malaysia (MAL) Chulalongkorn University (THAI)
Physics and astronomy	Universiti Malaya (MAL) Universiti Putra Malaysia (MAL) Universiti Teknologi Malaysia (MAL) Universiti Sains Malaysia (MAL) Universiti Kebangsaan Malaysia (MAL)	Universiti Malaya (MAL) Universiti Sains Malaysia (MAL)

Notes: MAL, THAI and SIN stands for Malaysia, Thailand and Singapore respectively. (Adapted from Bhandari, R., & Lefébure, A. (Eds.). (2015))

Table 16 shows top ASEAN universities in publication growth rate and in-region collaboration in selected countries (Singapore, Malaysia, and Thailand) in a wide variety of disciplines as shown in the table.

Thus, higher education can build collaboration for capacity- building and upskill and reskill training for the eight services professions in MRAs (namely accountancy, architecture, engineering, dental practitioners, medical practitioners, nursing, tourism professionals, surveyors) and other related professionals (including ICT, science and technology, energy, minerals, FAF, healthcare, e-commerce, MSMEs, and transportation). higher education can also develop research and innovation center for capacity -building and the services professions for AEC engagement.

To optimize the aforementioned AEC-offered opportunities especially intra-ASEAN cooperation and collaboration, higher education needs to overcome the challenges by enhancing digital connectivity. Such digital connectivity will certainly be more critical for economic progress and educational development in the future as the ICT sector is a key driver of digital transformation and innovation in other key sectors (e.g., industry and agriculture).

Realizing the challenge, ASEAN therefore declared ASEAN Declaration on Industry Transformation to Industry Revolution 4.0 (4IR) to reaffirm the regional commitment to develop a combined strategy on 4IR to drive the region's digital transformation and innovation (ASEAN Economic Community Council Meeting, October 2019). As a result, access to the ICT education services is one of the key indexes of intra-ASEAN university capacity-building and upskill and reskill training as it facilitates ICT-related pedagogy and training service efficiently.

Table 17 Comparative total enrollment and public expenditure on higher education in ASEAN, 2011

Country	Total Enrollment (%)	Public Expenditure on Higher Education (% GDP)
Brunei	8.11	N/A
Cambodia	223.60	14.5
Indonesia	5,364.62	18.9
Lao PDR	125.26	N/A
Malaysia	1,036.37	37
Myanmar	660.58	19.1
Philippines	2,625.63	12
Singapore	244.65	35.6
Thailand	2430.16	13.8
Viet Nam	2261.15	14.7

Table 17 Comparative total enrollment and public expenditure on higher education in ASEAN, 2011 showcases the patterns of outbound mobility of students

across ASEAN. There is a huge outflow of students to conventional higher education markets, particularly Australia, the United States, the United Kingdom, and the greater European Union (EU) region, while Thailand and Malaysia are becoming notable intra-ASEAN destinations for cross-border education.

4.2.2.2.2 Institutional connectivity

In the areas of connectivity and sectoral cooperation, ASEAN provisions provide benefits in two areas: physical and digital.

On physical connectivity, cooperation has progressed in terms of transport sector. Offered mechanisms for physical connectivity are the Protocol 3 on Expansion of Fifth Freedom Traffic Rights between Contracting Parties of the ASEAN-China Air Transport Agreement, Protocol to Implement the Eleventh Package of Commitments on Air Transport Services under the ASEAN Framework Agreement on Services, and Implementation Framework of the ASEAN Framework Agreement on Multimodal Transport and its Action Plan (Association of Southeast Asian Nations, 2019).

On digital connectivity, this may be more critical for economic progress and education in the future as the ICT sector is a key driver of digital transformation in other sectors. ASEAN therefore declared ASEAN Declaration on Industry Transformation to Industry 4.0 to reaffirm the regional commitment to develop a combined strategy on 4IR and adopt the ASEAN Digital Integration Framework Action Plan 2019-2025 to advance digital transformation and innovation in ASEAN (ASEAN Economic Community Council Meeting, October 2019).

Looking at the decade ahead, ASEAN 2025 aims to deepen regional economic integration with effective planning and monitoring to ensure successful outcomes of the community building process beyond the establishment of the AEC 2015 as shown below in the new blueprint, a stronger AEC is envisaged by 2025 which is based on 3 dimensions and 5 strategic areas of ASEAN Connectivity

Table 18 Dimensions and 5 strategic areas of ASEAN connectivity 2025

ASEAN Connectivity 2025: 3 dimensions and 5 strategic areas	
Vision: To achieve a seamlessly and comprehensively connected and integrated ASEAN that will promote competitiveness, inclusiveness and a greater sense of connectivity	
3 dimensions of connectivity: physical, institutional and people-to-people	
Strategic areas	Strategic objectives
Infrastructure	<ul style="list-style-type: none"> • <i>Increase public and private infrastructure investment across ASEAN countries</i> • <i>Enhance the evaluation and sharing of best practices on infrastructure productivity in ASEAN</i> • <i>Increase the deployment of smart urbanisation models across ASEAN countries</i>
Digital innovation	<ul style="list-style-type: none"> • <i>Establish best practices data-management frameworks across ASEAN countries</i> • <i>Support access to financial services through digital technologies</i> • <i>Increase the adoption of technology by SMEs</i> • <i>Enhance the impact of open data across ASEAN</i>
Seamless logistics	<ul style="list-style-type: none"> • <i>Lower supply-chain costs in each country</i> • <i>Improve speed and supply chain in each country</i>
Regulatory excellence	<ul style="list-style-type: none"> • <i>Lower trade-distorting non-tariff measures across ASEAN countries</i> • <i>Harmonize or mutually recognize product, conformance, and technical standards in key sectors</i>
People mobility	<ul style="list-style-type: none"> • <i>Support ease of travel throughout ASEAN</i> • <i>Increase intra- ASEAN mobility of university students</i> • <i>Reduce the gaps between vocational skills demand and supply across ASEAN countries</i>

(Source: AEIB)

4.2.2.3 Lessons from best practice

Economic growth to develop and improve their higher education system properly. Malaysia is the top country for providing Transnational Education (TNE) for UK qualifications in the world, with approximately 60,000 students (UK Trade & Investment Malaysia 2013), in comparison, Singapore is home to the highest ranked universities in Southeast Asia. (National University of Singapore) and it is a high-demand destination for student exchange within the region. The 'Singapore Scholarships' program for funding international students from the region has been particularly successful. Under this program, Singapore is open to all domestic scholarships externally. (Open Qualifications) charges non-residents only 10% higher tuition than local residents and offers a favorable interest rate on student loans.

These two countries differ in the way they support foreign higher education institutions. Singapore is international and management driven, using programs such as 'Global Schoolhouse' and 'Singapore Education' to bring overseas campuses to Singapore and form a global alliance (Ka Ho Mok 2011). Countries that are extremely active and recruiting international partners, especially compared to low-income Southeast Asian countries, have been the target of the 2005 development intervention. Singapore outlines long-term goals in relation to ASEAN and short-term goals for international legitimacy. In Malaysia, national universities are granted status which allows them to compete for outside funding but also force them to prove to states through performance that they deserve internal funding. Unlike Singapore, Malaysia has struggled to attract and negotiate high-level cooperation, just like Singapore does. Requirements for foreign universities to be incorporated into a majority owned company in Malaysia, more complex linguistic criteria and course demands (Ka Hor Mok 2011). As Singapore is widely positioned itself both in the region and in ASEAN, it is therefore the model for best practice.

The Singapore education system aims to help our students discover their talents, realize their potential, and develop a passion for learning that lasts them through their lives. This overview of the Singapore education landscape explains the programs and curricula available to cater to the students' diverse aptitudes and interests. It is therefore an international mix of world-class higher learning institutions.

The Singapore education system stands out globally as summarized below: Singapore ranked 2nd in “Quality of the Educational System” (Global Competitiveness Report 2011–2012)

- Singapore identified as one of the world’s best performing school Systems (McKinsey Report, published November 2010)
- Singapore students ranked among the top in Reading, Mathematics and Science (Programme for International Student Assessment (PISA) 2009)
- Singapore students ranked among the top in Mathematics and Science (Trends in International Mathematics and Science Study (TIMSS) 2007)
- Singapore ranked among the top in Literacy (Progress in International Reading Literacy Study (PIRLS) 2006)

The Singapore education system has been considered as one of the world’s best-performing school systems. The McKinsey Report, which examined the characteristics of school systems that consistently produce students who perform well in international benchmarking tests, placed Singapore high on its list of the world’s best-performing school systems. Quality teachers and first-rate instruction are just some of the factors highlighted in the report.

In the Global Competitiveness Report, Singapore’s education system is also consistently ranked amongst the best in terms of the ability to meet the needs of a competitive economy. It sets itself apart with its consistent and outstanding accomplishments in Mathematics and Science across all students at all levels. It also builds strong linguistics foundations through its bilingual policy. Its students have excelled in the Trends in Mathematics and Science Study (TIMSS), the Progress in International Reading Literacy Study (PIRLS), and recently, the Programme for International Student Assessment (PISA).

Some strengths among many that are keys to success of the Singapore education system as the best practice that provide some lessons include the following qualities: broad-based and holistic learning education, good teachers and school leaders and ICT-infused curriculum.

First, holistic education is the foundation of the Singapore education system. Among the key strengths of the Singapore education system are its bilingual policy, emphasis on broad-based and holistic learning, focus on teacher quality and

integration of information and communication technologies (ICT) into learning. This broad-based and holistic learning education develops in university students an enduring core of competencies, values and character, and ensure they have the capabilities to thrive in the 21st century. Our multiple educational pathways cater to the students with different strengths, interests and learning styles, developing each student to his fullest potential.

Second, the core of Singapore's education system relies on good teachers and school leaders. The country aimed to nurture and motivate its teachers to achieve their best, in line with their aspirations and interests. Its teachers receive their comprehensive pre-service training at the National Institute of Education (NIE) and have many opportunities for continual development to build up their capabilities as teaching professionals. This is complemented by the teacher academies and language institutes, which help to foster a stronger teacher-led culture of professional excellence.

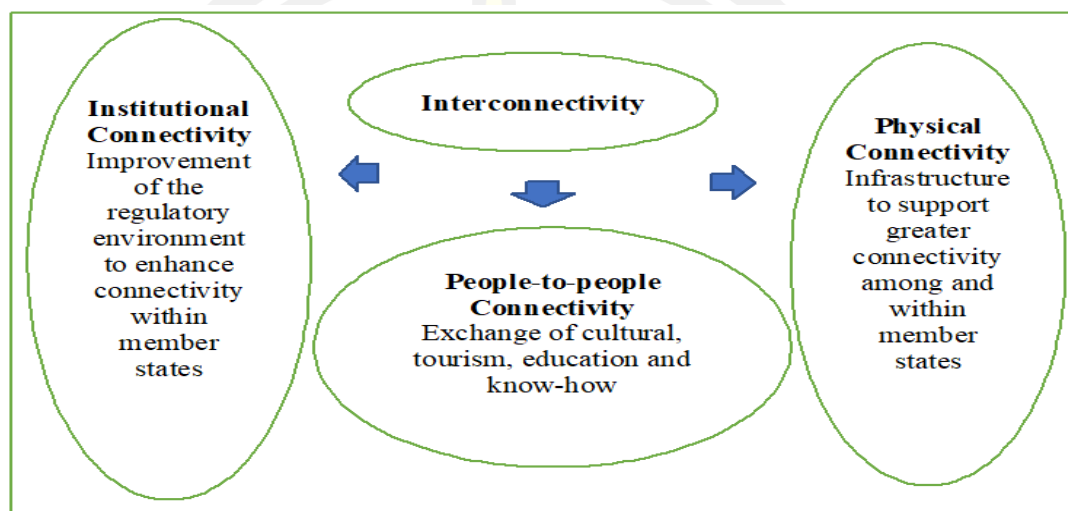
Lastly, ICT-infused curriculum effectively enriches and transforms the learning environments of its students and to equip them with the critical competencies to succeed in a knowledge-based economy. A key thrust is the purposeful integration of ICT into all types of lessons to enhance the students' learning experience. Additional funding and resources enable schools to seed innovative teaching methods. A group of future schools are partnering industry players to use state-of-the-art technology to pilot new teaching and learning experiences.

4.2.3 Research question 3:

What are the keystones for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries? To answer this question, two keywords need to be addressed here. Keystones for the future of education business refer to the most important parts of an idea, plan, or essence on which everything else depends. For instance, innovations refer to the most important parts of an idea, plan, or essence on which everything else depends. Recommendations for innovative policy and practices on education involve conspicuous ideas, advice, suggestions of strategies, actions, plans, and policies that are effective for achieving objectives or goals for the promising future of education business in this region.

4.2.3.1 Keystones for higher institutions

refer to the innovations that \connect institution, people and physical infrastructure. Interconnectivity forms the core keystones for the future of education business in this region as shown in the following figure.



(Adept from UNESCO, 2015)

Figure 11 Connectivity: 3 dimensions of interconnectivity in ASEAN

Figure 11 recognizes the importance of education as a universal right and for the success of all, transforming education with the use of ICT aims to ensure equitable access to quality education and improved learning outcomes – within a lifelong learning perspective for all. It is hoped that through this, the foundations of a sustainable and inclusive knowledge society will be built. In order to deliver on this commitment, the 2015 Qingdao Declaration has emphasized the need for the application of ICT in education (UNESCO, 2015).

The Association of Southeast Nations (ASEAN) ICT Masterplan 2020 is focused on propelling the region towards a digitally enabled, integrated economy. ICTs in education offer opportunities for governments in ASEAN and other emerging nations to address such key education challenges of quality, equity, and efficiency and to develop their human capital. This is especially so for developing nations undergoing education reforms and with a large youthful demographic. The challenges can be resolved through the strategic use of ICTs when a holistic approach towards ICT in holistic education as modeled by the Singapore education system should be adopted. In

view of the unprecedented opportunities, it offers to transform education as shown below.

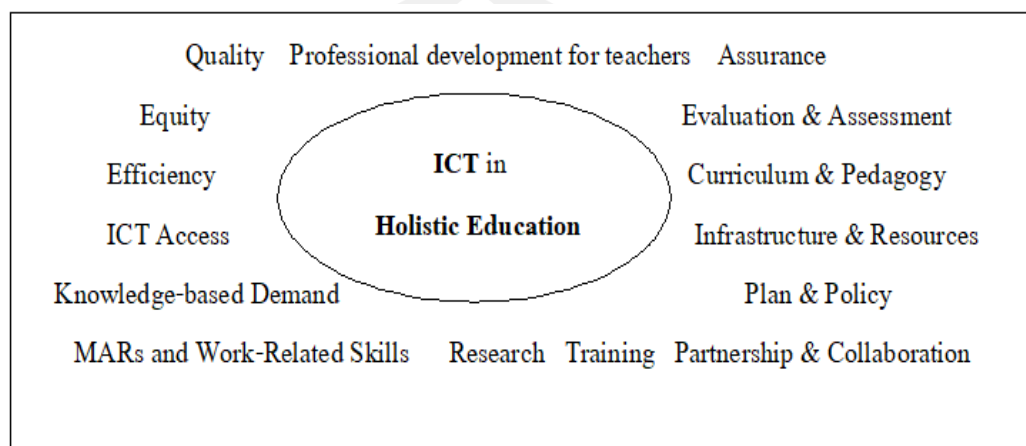
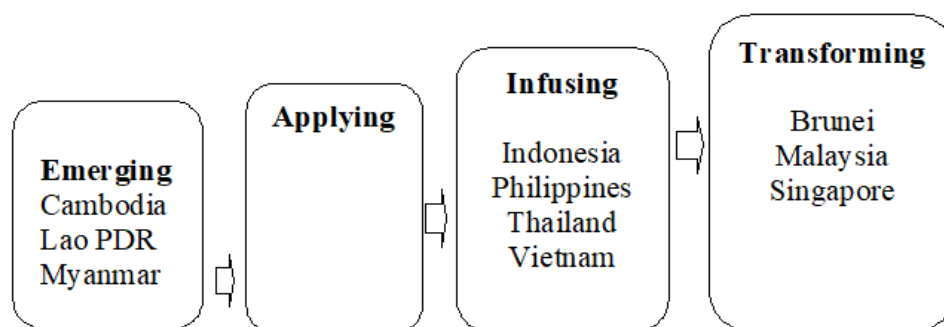


Figure 12 Framework for the transformation of higher education with the strategic use of ICT in holistic education

Figure 12 illustrates recognizing the benefits of strategically using ICT to enhance the quality, equity and efficiency of education systems, all ASEAN countries have introduced initiatives to integrate ICT in education. The use of ICT allows for sharing of best practices and digital learning resources, enhancing learning environments and their scholastic performance. The interactive capacity of ICTs provides opportunities for students to engage more pro-actively in their learning process. Additionally, it opens up the possibility of adapting learning content and pedagogy to the needs and capabilities of individual students for a more personalized learning experience. The use of ICT has the potential to reduce the digital learning divide. Finally, both ICT enabled education and ICT education can improve the quality, equity and efficiency of education systems. ICTs provide the opportunities for students to develop a set of core competencies to meet the demands of the new education vision.

Within the framework for the transformation of higher education with the strategic use of ICT in holistic education, not all ten countries progress at the same stage. Below are the stages of each country.



(Source: Southeast Asian Countries according to their Stage of ICT Integration in Education (SEAMEO, 2010))

Figure 13 Stages of ICT transformation of higher education in member countries

Figure 13 demonstrates the stages of ICT transformation of higher education in member countries. The first and lowest stage, emerging, comprises Cambodia, Lao PDR and Myanmar. There is no country in the second and higher stage, applying. The third stage, infusing, consists of Indonesia, Philippines, Thailand and Vietnam. The fourth and highest stage, transforming, includes Brunei, Malaysia and Singapore.

4.2.3.2 Recommendations for innovative educational policies and Practices

As education is instrumental in achieving economic and Development success for the intra-ASEAN educational business to take place, here are some implications and a road map for educational innovation policies and practices that should be addressed in the following areas.

4.2.3.3 Implications for higher education

To fully maximize the opportunities and overcome the challenges of AEC engagement, higher education needs to strategically translate regional-level commitments into institutional-level ones in the realm of institutional policy making and implementation. Implications for strategic implementation that need to be addressed are: enhancing knowledge-based institutions, adopting ICT, and accelerating interconnectivity.

4.2.3.3.1 Enhancing knowledge-based international higher education Institutions

Higher education needs to take a leading role in coordinating with public-private partnerships to promote knowledge-based incentives to help draw

investment from the dynamic private sectors and networks in developing institutional infrastructure conducive to improving the education system that provides key competencies needed for building human capital for knowledge-intensive sectors to expedite the progress towards the AEC Blueprint 2025 and strengthen its institution's leading role through expanding its knowledge-focused events and knowledge-intensive jobs.

4.2.3.3.2 Adopting ICT

Higher education needs to adopt ASEAN's technology and innovation-driven 4IR plan to increase in the use of ICT for radically changing the traditional teaching styles through ICT-blended education delivery models and Massive Open Online Course (MOOC) format to facilitate a more student-centered creativity, implement the institutional digital literacy plan to increase digital and ICT-related skills in students, and establish a technology incubator and accelerator centers by increase in diaspora talent engagement to support education.

4.2.3.3.3 Accelerating physical interconnectivity

Being part of the ASEAN connectivity agenda, higher education needs to accelerate interconnectivity through deepening educational cooperation and networks offered by AUN. Cooperation with leading institutions in other countries (e.g., Singapore as the world class university and the top in Asia, and Malaysia as the model of TNE) is valuable for the local institutions in building their capacity and in reviewing their education to ensure that they are moving towards up-to-date, comprehensive, and high-quality education based on the region's growing regionalization and internationalization.

4.2.3.4 A road map for higher education institutions

Practically, to make the most of AEC engagement, a strategic roadmap is needed. Below is a feasible one that defines what the institutions should do in each stage in order to achieve the goal of producing highly qualified and skilled human capital for AEC as shown in Figure 14

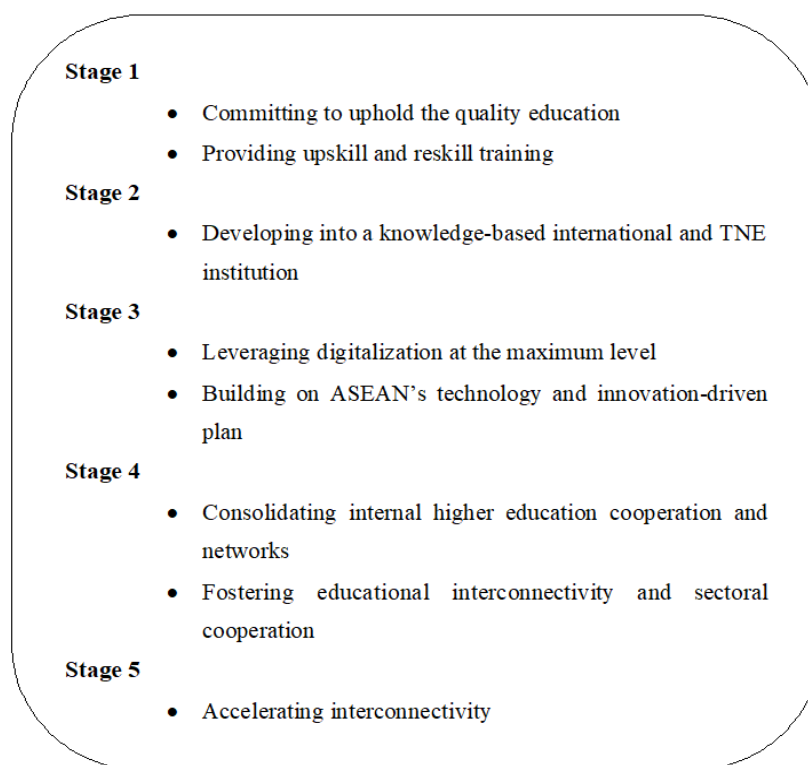


Figure 14 A proposed roadmap for strategic management for higher education

Figure 14 proposes a roadmap of an institution's future plan which aims to provide a guidance of what policy makers of higher education institutions should do in order to benefit from AEC engagement more effectively and efficiently. The strategic roadmap is a time-based plan. The proposed timeline can be varied appropriately to the institution's mission, consisting of five stages.

Firstly, the institutions need to commit to leveraging and upholding the quality education in order to build up their capacities towards their engagement. They also need to provide upskill and reskill training as required by MRAs and multinational standards to increase the competitiveness.

Secondly, they need to develop into a knowledge-based institution to consolidate the quality education of their institutions as required by the regional standards. A more advanced local institution should plan to develop into international transnational ones as Singapore and Malaysia models.

Thirdly, they need to leverage digitalization at the maximum level to uphold quality education and upskill according to ASEAN's technology and innovation-driven plan.

Fourthly, they need to consolidate internal higher education cooperation, embrace ASEAN's economic relations and networks, foster educational inter-connectivity and sectoral cooperation and their partners, and accelerate interconnectivity among various partners to empower the regional entity.

Lastly, ASEAN regulations are still complex. To solve the complexities, institutions look beyond and aim at international standards which are applied for multinational enterprises while they are waiting for a global ASEAN to envisage in 2025.

4.3 Discussion

Four areas need to be discussed:

On progress of AEC integration, like prior study that investigated the contributions of this integration in various aspects such as emerging ASEAN community regional development (Kobayashi et al., 2017) and economic integration (Ishikawa, 2012), ASEAN integration and beyond (Das, 2015), directions that ASEAN is moving towards (Azis, 2018; Chia & Plummer, 2015) , this present study found that AEC has achieved the four aspects of AEC are almost completely achieved. Outstanding achievements could be found in these areas: moving towards a single market and production base, removing barriers to trade, bolstering productivity, providing MRAs, gearing to a world class investment destination and strengthening commercial viability.

On opportunity, in details, this present study found opportunity in these areas: trade in goods, trade facilitation, customs cooperation, standards and conformance, trade in services; well-functioning markets, rules on competition, intellectual property (IP); ICT, electronic commerce (e-commerce), energy, tourism; Food, Agriculture, and Forestry (FAF), Science and Technology (S&T); MSMEs, such as the ASEAN Online Academy (ASEAN-OA), ASEAN Business Incubator Network (ASEAN-BIN) and the ASEAN Mentorship for Entrepreneurs (ASEAN-ME); Free Trade and Investment

Agreements; MSMEs, such as the ASEAN Online Academy (ASEAN-OA), ASEAN Business Incubator Network (ASEAN-BIN) and the ASEAN Mentorship for Entrepreneurs (ASEAN-ME), Free Trade and Investment Agreements; A Work Plan for AANZFTA Upgrade Negotiations, The ASEAN-Japan Comprehensive Economic Partnership (ASEAN-JCEP) by all AMS to incorporate the chapters on services, investment, and Movement of Natural Persons; and The Fourth Industrial Revolution (4IR). In particular, this study found that moving towards a single market and production base consists of free flow of goods, services, investment, skilled labor and freer flow of capital. This is consistent with several studies (Luz, 2014; Huelser & Heal, 2014; Yue, 2013; Rüländ, 2016) that free flow of skilled labor in ASEAN community provides huge opportunities to the people. Another potential impact on the economy and business of the is the flow of trade, goods, service and investments in this hegemony region. For example, the study of Rivera and Lagdameo (2013) indicated that a surge of trade flows, foreign direct investments (FDIs), and monetary flows within and into the ASEAN economic block, brought about by the rapid expansion of inter- and intraregional trade in goods, services, and FDIs via trade and investment liberalization policies, preferential trading arrangements, and the creation of production networks.

One of the most outstanding AEC progress and achievement is worker mobility (Te et al., 2018; Batalova et al., 2017). This present study also found barriers to trade through facilitative standards and conformance includes mutual recognition arrangements (MRAs), along with harmonization of standards, technical requirements and development of guidelines have been removed. Productivity through skills mobility which aims to build capacity in skills by facilitating the free flow of skilled labor across the region, taking into account domestic regulations, and market demand has been bolstered. This finding lends support those of prior study on AEC progress in terms of facilitating worker mobility (Te et al., 2018; Batalova et al., 2017). Te et al. (2018) indicated that the observed and potential impact of the health-related MRAs on health worker mobility within the region, particularly with regard to qualified doctors and nurses.

On crucial challenges of the ASEAN economic integration, the study of Hoàng (2013) revealed that the labor market has encountered challenges regarding worker

mobility. This is the key deterrence to the promise of AEC (Wallar, 2014). This present study explains the reasons of the challenges in terms of quality education. There are direct and indirect factors to quality education. The factors that directly affect quality education include all these: difference in quality, quality assessment, quality enhancement, quality of students and quality of physical and academic infrastructure. The factors that indirectly affect quality education consist of student and faculty exchange, integrated education framework, inadequate interdisciplinary contents and multidisciplinary studies, quality of research, development of higher education quality, and professional education and job training.

In addition to quality of education, this present study found that the lack of high skill demand also poses potential challenges to worker mobility, including regional skills competition, shortage of skilled workers, regional certification, higher MRA work-related skill demand, intraregional skilled labor mobility, and increase English proficiency. This study lends supports to prior studies that high skills are required for achieving skill mobility (Papademetriou et al., 2016), skill verification by the means of professional certification examination (Pyakurel, 2014), capacity-building (Aldaba & Aldaba, 2013) and English is a key impetus (Kirkpatrick & Bui, 2016; Crocco & Bunwirat, 2014).

Lastly, digitalization is a crucial challenge to worker mobility. Challenges in digitalization can be found in these two aspects: width in digitalization and width in ICT in education. ICT is the key to quality education enhancement and skill development. This finding relates to the study of Abonyi (2012) which is the challenge of innovation-micro view. ICT-related pedagogy can improve the challenges in quality education, equity, and efficiency. This present study proposes engagement between institutional connectivity and physical and digital connectivity.

The study of Moussa & Kanwara (2015) highlighted the significance of internationalization, the present study focuses on emerging trends in higher education and response to the trends. In response to emerging trends, two new forms of higher education are knowledge-based international and transnational HE. Singapore is an example of international higher education while in Singapore while Malaysia is an example of transnational higher education. Similarly, in a study on education trends, Grapragasem et al. (2014) explored current trends in Malaysian Higher Education and

found four main trends including globalization, teaching and learning, governance, and the knowledge-based society. The finding of this present study related to globalization or inter-nationalization. Investigations of the current trends found several effects, including: education policy and practice (Grapragasem & Mansor, 2014), the role of education to strengthen human capital development and R&D capacity in ASEAN (Tullao & Cabuay, 2015), the effects of ASEAN policy on education and job market (Pyakurel, 2014), and the impact of ASEAN economic integration on education policy and plan (Kamolpun, 2015). Kamolpun (2015) found that every type of institution was facing similar challenges in the policy process, including policy clarity, government regulations, and budget inadequacy. This present study therefore suggests recommendations for innovative educational policies and practices, enhancing knowledge-based international higher education institutions, adopting ASEAN's ICT and accelerating physical interconnectivity. This study also proposes a roadmap for strategic management for higher education institutions, consisting of 5 stages: 1) committing to uphold the quality education for capacity-building and providing upskill and reskill training, 2) developing into a knowledge-based international and TNE institution, 3) leveraging digitalization at the maximum level, building on ASEAN's technology and innovation-driven plan, 4) consolidating internal higher education cooperation, embracing external economic relations, fostering educational interconnectivity and sectoral cooperation, and accelerating interconnectivity.

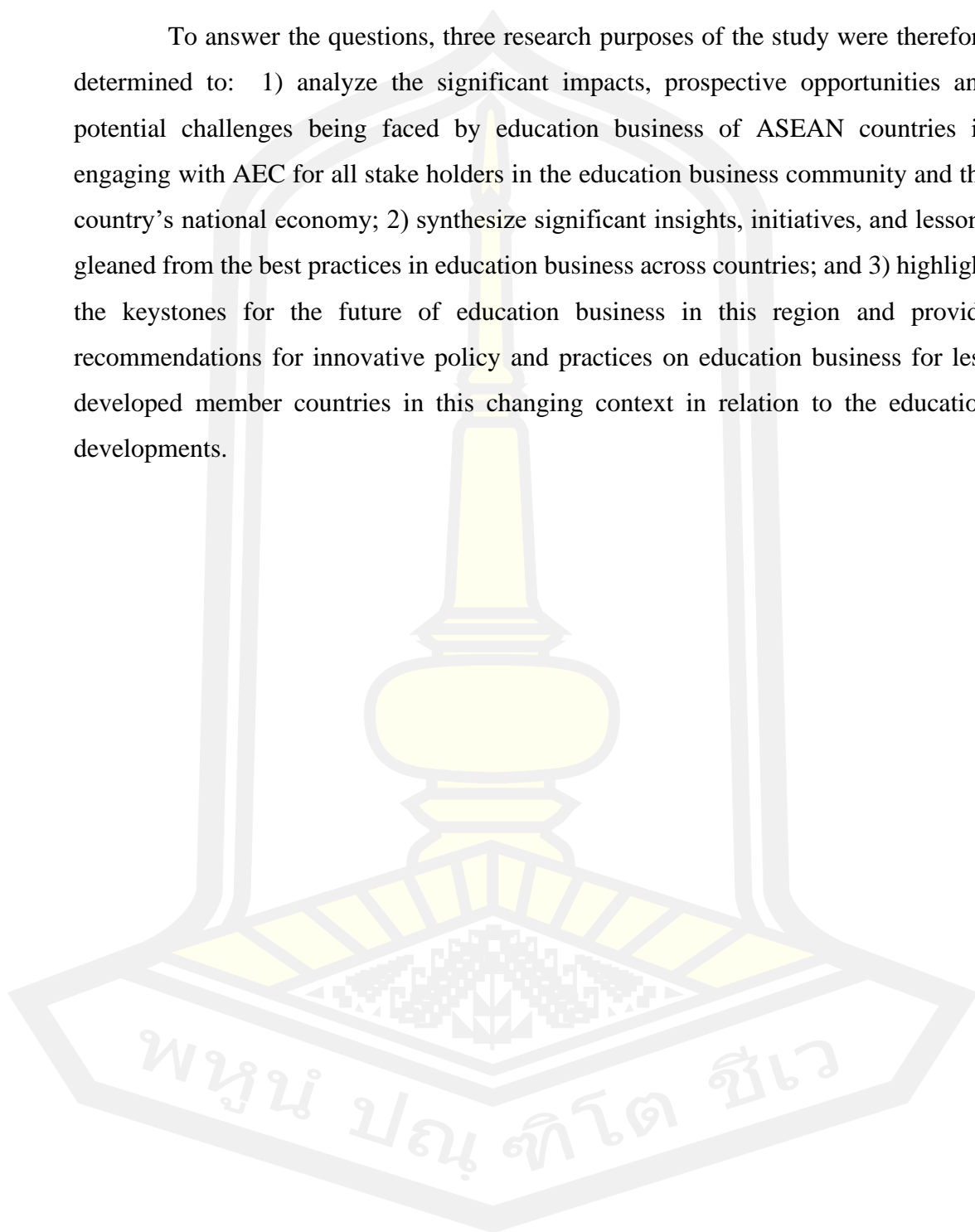
To support the roadmap, this present study highlights keystones for innovative policy and practices. On the keystone, this present study pinpoints the importance of the regional connectivity. On physical connectivity, Chia (2016) found the progress in transport and other physical infrastructure, which is necessary for the physical delivery of the goods and people flows made possible by trade and investment liberalizations, particularly in geographically dispersed and diverse regions such as ASEAN (Chia, 2016). However, this present study emphasizes on interconnectivity, not extending to a wider global economic context like the study of Abonyi (2012) and ASEN connectivity (Chia, 2016), due to the fact that the documents for data analysis in this present study limited to the post-2015 to December 2020 and the results indicate that keystones for higher institutions lies on interconnectivity. Three factors that institutional connectivity (i.e. improvement of the regulatory environment to enhance connectivity within

member states), people-to-people connectivity (i.e. exchange of cultural, tourism, education and know-how), and physical connectivity (i.e. infrastructure to support greater connectivity among and within member states). The challenges of higher education in this region can be resolved through the strategic use of ICTs when a holistic approach towards ICT in holistic education as modeled by the Singapore education system is adopted because the use of ICT allows for sharing of best practices and digital learning resources, enhancing learning environments and their scholastic performance. The interactive capacity of ICTs provides opportunities for students to engage more pro-actively in their learning process. It also opens up the possibility of adapting learning content and pedagogy to the needs and capabilities of individual students for a more personalized learning experience. The use of ICT has the potential to reduce the digital learning divide. Finally, both ICT enabled education and ICT education can improve the quality, equity and efficiency of education systems. ICTs provide the opportunities for students to develop a set of core competencies to meet the demands of the new education vision.

To support the roadmap, this present study highlights major initiatives offered to enhance AEC and higher education in the region in order to drive the regional integration specifically relate to such as institutional cooperation through ASEAN University Network (AUN) and other mechanisms and institutional connectivity. On one side, institutional cooperation involves the network among universities under ASEAN University Network (AUN) as offered to enhance education cooperation which higher education in slow progress economies can learn lessons from in terms of publication growth rate and in-region collaboration in more academic advanced countries (namely Singapore, Malaysia, and Thailand) and to build collaboration for capacity-building and upskill and reskill training for the eight services professions in MRAs (namely accountancy, architecture, engineering, dental practitioners, medical practitioners, nursing, tourism professionals, surveyors) and other related professionals (including ICT, science and technology, energy, minerals, FAF, healthcare, e-commerce, MSMEs, and transportation). This study lends support to the studies of Lek (2014) and Sakamoto & Chapman (2012) that cross-border partnerships is the tool for HE effective management.

4.4 Conclusion of the chapter

To answer the questions, three research purposes of the study were therefore determined to: 1) analyze the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community and the country's national economy; 2) synthesize significant insights, initiatives, and lessons gleaned from the best practices in education business across countries; and 3) highlight the keystones for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries in this changing context in relation to the education developments.



CHAPTER 5

Conclusion

5.1 Summary of research

Education has long been considered as a key driver for human capital development, especially economic development at all levels. It is considered by all ASEAN governments as a key driver of the region's economic prosperity so they put high investment in education and human capital development. The investment has considerably contributed to the economic progress in this region. Still, the goal of one economic community has a long way to go.

It is therefore necessary to understand the impacts of the regional economic transformation on the education business in all member countries, particularly on how education in each country can contribute to its economic prosperity and, in turn, how education in each country is affected by the regional economic goal, especially the impacts of key elements for ASEAN education cooperation in the post-2015. To achieve the goal of economic integration, the ASEAN governments initiates education cooperation as a prime mover of progress and the key elements for the initiated education cooperation in the post-2015 marked as the inauguration of AEC.

Three research questions were raised so as to guide and frame this analysis, including: 1) What are the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community? 2) What is the synthesis of significant insights, initiatives, and lessons gleaned from the best practices in education business across countries? 3) What are the keystones for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries in this changing context?

This present study primarily explores the impacts of AEC on education business in ASEAN countries. In response to the aforementioned research questions, three specific purposes of the study are determined as a guideline and framework of the

analysis, which were to: 1) analyze the significant impacts, prospective opportunities and potential challenges being faced by education business of ASEAN countries in engaging with AEC for all stake holders in the education business community; 2) synthesize significant insights, initiatives, and lessons gleaned from the best practices in education business across countries; and 3) highlight the keystones for the future of education business in this region and provide recommendations for innovative policy and practices on education business for less developed member countries in this changing context.

A literature review of a prominent feature of the successful educational transformation across the region and the globe indicates that education reform efforts in order to cope with national, regional and global transformation especially in this disruptive world are guided by a clear goal or vision and implemented through a coherent planning, management and monitoring process. This study therefore reviewed, understood, interpreted and made sense of primary and secondary sources of documents and texts. In an attempt to draw insights of meaning lying beneath the texts, this study went through comparative perspectives to include lessons, best practices and feasible multimodality across the countries, the regions and the globe into the focus of the analysis.

The design of this study would be based on qualitative, cross-national, interpretive analysis of documents relation to the focus of the study. This analysis aimed to draw a set of conclusions as reflections for education policy makers and practitioners in areas where policy dialogue and reform is critical for improving education performance for further discussions on possible areas and practical approaches to feasibly policy reform to serve the needs of the people in the country and the region and to prepare for the sustainable future of ASEAN. Cross-national comparative analysis, which is a qualitative research method, was therefore purposefully selected for this interpretive investigation.

Data analysis process in this study followed these five steps consisting of: gathering data, organizing data item, coding, recording, and categorizing categorization and abstraction. To check the reliability and validity, this study designated to ensure every step of the research process, from the outset till the analysis as detailed below. Choice of documents are chiefly based on primary official and formal sources while

secondary sources are used as supports, clarifications and extensions. Terms are meaningfully defined and operational definitions or nodes are concretely and precisely detailed. Coding process are systematically planned. Data are coded and recorded in order to compare the results of coding. The coded and recoded data from other three experts were compared based on triangulation with the aim to construct reliability and validity check.

The results of the analysis could be concluded as seen in the next part.

5.2 Conclusion of the Study

Conclusions of the study could be divided into three major groups.

5.2.1 Significant impacts, prospective opportunities and potential challenges

5.2.1.1 Significant impacts

The significant impacts of AEC are key achievements as a result of the four AEC aspects (namely moving towards a single market and production base, removing barriers to trade, bolstering productivity, providing MRAs, gearing to a world class investment destination, and strengthening commercial viability). Trade in goods, trade facilitation, customs cooperation, standards and conformance, trade in services; well-functioning markets, rules on competition, intellectual property (IP); ICT, electronic commerce (e-commerce), energy, tourism; Food, Agriculture, and Forestry (FAF), Science and Technology (S&T); MSMEs, such as the ASEAN Online Academy (ASEAN-OA), ASEAN Business Incubator Network (ASEAN-BIN) and the ASEAN Mentorship for Entrepreneurs (ASEAN-ME); Free Trade and Investment Agreements; MSMEs, such as the ASEAN Online Academy (ASEAN-OA), ASEAN Business Incubator Network (ASEAN-BIN) and the ASEAN Mentorship for Entrepreneurs (ASEAN-ME), Free Trade and Investment Agreements; A Work Plan for AANZFTA Upgrade Negotiations, The ASEAN-Japan Comprehensive Economic Partnership (ASEAN-JCEP) by all AMS to incorporate the chapters on services, investment, and Movement of Natural Persons; and The Fourth Industrial Revolution (4IR).

5.2.1.2 Prospective opportunities

The prospective opportunities of AEC to all business sectors can be seen from these aspects. First, the economic growth in general and specifically to HE in the region could be summarized as follows. The overall normal GDP of the region has increased significantly from 2010 to the integration in 2015 and has doubled in 2018. The normal GDP of each country shares has also risen considerably. Second, in terms of rank, value and global share of selected indicators of ASEAN economy (2010-2018). The ranks of FDI inflows and outflows have increased. The values of all selected indicators have also risen up. The global shares of all indicators have increased significantly from 2010 to 2018. Third, nominal GDP of agriculture, industry and service (2010-2018) has risen. The balancing item has risen continuously from 2010 to 2018. However, there are differences in details on each sector. The agricultural and industrial sectors have decreased consistently. Only the service sector has risen, though continually. The service sector contributed for half of the region's total GDP in 2018, which made it the largest component of ASEAN GDP. This indicated that the service sector is the most promising sector that HE should pay close attention to earnestly as a new engine for growth in ASEAN which continues to grow up.

Compared to agricultural and industrial sectors, the sum of the real GDP shares of services makes up nearly half of the real output. Countries that received higher shares, more than fifty percent, were Singapore, Thailand, Philippine, and Malaysia respectively. Compared to the industrial sector, the sum of the women employment accounts for more than half of employed workforces in every country, some of which received higher shares, from 75.9-90.0% were Brunei Darussalam, Singapore, Philippine, and Malaysia respectively. Thus, HE should focus on these prospective opportunities of the of services sector.

In details of the opportunities from the services sector, the countries with higher shares (namely Singapore, Thailand, Philippine and Malaysia) can optimize more opportunities from the services sector. Women workforce in all countries, especially the workforce in countries with higher shares (namely Brunei Darussalam, Singapore, the Philippines, and Malaysia) have higher job opportunity in the services sector than the industrial sector. HE in Singapore, Thailand, Philippine, Malaysia, and Brunei Darussalam need to prepare their students for intraregional skilled labor

mobility by providing knowledge and work-related skills as required by the regional standards, revolving around services sector labor mobility provisions, especially MRAs which allow to work outside their home country.

More specifically, looking into trade in service, the subsector shares increased in these areas, namely: manufacturing services; maintenance and repair; travel; finance; telecommunications, computer, and information; and other business). The intra-ASEAN services trade increased in these sub-sectors, including: manufacturing on physical inputs; insurance and pension; finance; charges for the use of intellectual property; telecommunications, computer, and information; other business; and personal, cultural, and recreations. HE should prepare for these sub-sectors of services sector to gain the most opportunities from AEC and find solutions to potential challenges of AEC in order to maximize the opportunities.

5.2.1.3 Potential challenges

Potential challenges to HE in this region fall into three groups, including: quality of education, higher skill demand, and digitalization.

5.2.1.3.1 Quality education

The factors that directly affect quality education include all these challenges. First, differences in quality of education consist of these issues: teaching standards, research capability, expertise across the regions, and education systems among institutions within some countries remain high. Second, quality assessment involves improved efficiency of higher quality of education. Attention should be given to the observance of the principles of academic freedom and institutional independence. Third, quality enhancement concerns with the need for initial training and in the service of academic staff and for more rigorous mechanisms in the selection and training of staff for administration and management at the tertiary level. Fourth, quality of students largely depends on the aptitudes and motivation of those leaving secondary education, so it is imperative to recheck such issues as the connection during higher education. Student counseling and orientation, including the need to promote the concept of social responsibility among students, especially those who benefit from public support. Fifth and lastly, quality of the physical and academic infrastructure of higher education is important for teaching, research, service duties, and institutional culture that is

indispensable for the integration of highly diverse and often geographically dispersed higher education institutions.

The challenges that indirectly affect quality education involves these factors. Above all, student and faculty exchange is currently being offered to students and enhancing the education of teachers, academics, other educational personnel. Professional competence to lead a program focused on talent management and leadership selection is another way of improving the quality of education. Next, integrated education framework and courses and delivery models in all programs are still in the process of being adjusted to be integrated to meet the needs of the labor market and achieve the desired goals of one community. Then, updating the content of interdisciplinary and multidisciplinary studies is essential to develop students' cognitive abilities to improve the content of interdisciplinary and multidisciplinary studies and the use of delivery methods that enhance information and communication technology and digital economy. In addition, research which is one of the major functions of higher education and a fundamental factor for its social relevance and academic quality still needs promotion. The higher education business should be viewed as an indispensable ally in promoting this function. Also, development of higher education quality and regional approaches to the relationship between the quality of higher education and development need to be shifted, with a focus on research quality, which has led to institutional quality. Lastly, professional education and job training have been significant changes in the delivery of doctoral studies in ASEAN. The impetus for national capacity-building and economic competitiveness at the national, regional and global level has led to a strong focus on the career readiness of new graduates, especially at the postgraduate level.

5.2.1.3.2 High skill demand

Another potential challenge engages with high skill demand. Regional skills competition among higher education institutions needs to be encouraged to participate in skills competitions to support labor development and to achieve competencies according to regional standards according to the professions as required by MRAs. Moreover, shortage of skilled workers ASEAN countries needs to improve the quality of their educational systems as many graduates lack the skills required in today's rapidly changing workplaces. Furthermore, regarding regional certification,

accreditation as a process and a result lacks independent judgments to confirm that significant objectives are achieved and are generally of comparable quality. On higher MRA work-related skill demand which is globally and regionally connected economic progress demands higher work-related skills. Higher education needs to promote timely upskill, reskill, and on-demand trainings as required by MRA certifications of qualifications and regional standards conducive to AEC provisions. In addition, intraregional skilled labor mobility, the most tangible benefit for the peoples, should revolve around labor mobility provisions, especially MRAs which allow to work outside their home country. Finally, workers should recognize the importance of the ability to communicate in English more consciously as a vital tool for advancing the ASEAN Community 2015.

5.2.1.3.3 Challenges in digitalization

ICT is the key to quality education and skill development. However, ASEAN has the width in digitalization which becomes a major challenge to AEC progress, especially digital economy as well as quality education and skill development. ICT is the major trend for education but ICT is the major challenge in this region due to economic differences among the countries. Challenges in digitalization can be found in these two aspects. On the width in digitalization, the access and differences in digitalization within ASEAN varies greatly are very wide. The gap between the country with the highest number of subscribers (94.6) and the lowest one (33.1) is wide. The majority of subscribers in Brunei Darussalam, Singapore, and Malaysia could access to the Internet three times higher than the minority of subscribers in Indonesia, Lao PDR, and Myanmar could access to the Internet. The gap between the country with the highest number of cellular phones (180.2) and the lowest one (51.9) is also wide. The three highest cellular phone usage countries are Thailand, Viet Nam, and Singapore while the three lowest ones are Myanmar, Philippines, and Lao PDR. What's more, on the width in ICT in education, the proportion of Internet access in schools in the selected countries, excluding Myanmar, Laos and Vietnam. The gap was very wide. All students in Brunei and Singapore could access to the Internet. The majority of students in Thailand and Malaysia could use the Internet in studies. Almost half of the students in Indonesia could gain access to the Internet while students in the Philippines and Cambodia had limited access to the Internet. These facts may explain why the

educational and economic systems of the countries with high proportions of the Internet access developed more successfully than those of the countries with lower Internet access.

Most importantly, challenges in digitalization need to be solved. With respect to quality, ICT-related pedagogy can improve the challenges in quality of teachers, student achievement, deliveries of public education. In terms of equity, ICT technologies enable equitable access to quality education in slow economies. On efficiency, the application of ICT in education can ensure efficiency and capacity-building on-demand training and labor market needs.

5.2.2 Significant insights, initiatives, and lessons gleaned from the best practices in education business across member countries

5.2.2.1 Significant insights

Key points regarding recent development of higher education concern with emerging trends in higher education and response to the trends. Most outstandingly, emerging trends in recent developments in higher education views education and knowledge as an international commodity. Effective participation in the globally connected world is a vital part of the mutual benefit of any economic communities and consumers are often viewed as more of a must-buy item to create a skill set for use in the marketplace or products at multinational corporations, educational institutions, which have passed themselves into business. Thus, international and transnational education is a vital trend for the future of higher education in this region.

In response to emerging trends, two new forms of higher education are knowledge-based international and transnational HE. To increase competitiveness, HE in this region needs to gear towards knowledge-based international higher education. There is also a robust commitment to knowledge-based international higher education in Singapore. These countries, while not all being the ones with the largest higher education systems in ASEAN, are those whose systems are generally the most developed across the core domains in higher education of learning/teaching and research. They also benefit from governments who, in relative terms, are most able to invest in higher education. The other new form of higher education which is related to knowledge-based transnational higher education. Knowledge-based transnational higher education has always had an international dimension, with more than one million

students studying abroad, and through a multinational collaboration between universities, transnational drive is a new development. It is likely that the transnational higher education program will continue to be developed in the host country markets such as Malaysia and Singapore, especially when they target at ambitious, international students.

5.2.2.2 Initiatives

Major initiatives offered to enhance AEC and higher education in the region in order to drive the regional integration specifically relate to: a) institutional cooperation through ASEAN University Network (AUN) and other mechanisms and b) institutional connectivity. On one side, institutional cooperation involves the network among universities under ASEAN University Network (AUN) as offered to enhance education cooperation which higher education in slow progress economies can learn lessons from in terms of publication growth rate and in-region collaboration in more academic advanced countries (namely Singapore, Malaysia, and Thailand) and to build collaboration for capacity-building and upskill and reskill training for the eight services professions in MRAs (namely accountancy, architecture, engineering, dental practitioners, medical practitioners, nursing, tourism professionals, surveyors) and other related professionals (including ICT, science and technology, energy, minerals, FAF, healthcare, e-commerce, MSMEs, and transportation). On the other side, institutional connectivity engages with physical and digital connectivity. On physical connectivity, cooperation has progressed in terms of transport sector. Offered mechanisms for physical connectivity are the Protocol 3 on Expansion of Fifth Freedom Traffic Rights between Contracting Parties of the ASEAN-China Air Transport Agreement, Protocol to Implement the Eleventh Package of Commitments on Air Transport Services under the ASEAN Framework Agreement on Services, and Implementation Framework of the ASEAN Framework Agreement on Multimodal Transport and its Action Plan (Association of Southeast Asian Nations, 2019). On digital connectivity, the ICT sector is a key driver of digital transformation in other sectors. ASEAN declared ASEAN Declaration on Industry Transformation to Industry 4.0 to reaffirm the regional commitment to develop a combined strategy on 4IR and adopt the ASEAN Digital Integration Framework Action Plan 2019-2025 to advance digital transformation and innovation in ASEAN. The new blueprint envisaged by 2025

is based on 3 dimensions (namely physical, institutional and people-to-people) and 5 strategic areas of ASEAN Connectivity (namely infrastructure, digital innovation, seamless logistics, regulatory excellence and people mobility).

5.2.2.3 Lessons from best practice

Singapore is the best practice of international and management driven, using programs such as 'Global Schoolhouse' and 'Singapore Education' to bring overseas campuses to Singapore and form a global alliance. As Singapore is widely positioned itself both in the region and in ASEAN, it is therefore the model for best practice. The Singapore education system aims to help our students discover their talents, realize their potential, and develop a passion for learning that lasts them through their lives. Some strengths among many that are keys to success of the Singapore education system as the best practice that provide some lessons include the following qualities: broad-based and holistic learning education, good teachers and school leaders and ICT-infused curriculum.

5.2.3 Keystones and recommendations for innovative policy and practices

5.2.3.1 Keystones for higher institutions

Keystones for higher institutions lies on interconnectivity among three factors: institutional connectivity (i.e., improvement of the regulatory environment to enhance connectivity within member states), people-to-people connectivity (i.e., exchange of cultural, tourism, education and know-how), and physical connectivity (i.e., infrastructure to support greater connectivity among and within member states). The challenges of higher education in this region can be resolved through the strategic use of ICTs when a holistic approach towards ICT in holistic education as modeled by the Singapore education system is be adopted because the use of ICT allows for sharing of best practices and digital learning resources, enhancing learning environments and their scholastic performance. The interactive capacity of ICTs provides opportunities for students to engage more pro-actively in their learning process. It also opens up the possibility of adapting learning content and pedagogy to the needs and capabilities of individual students for a more personalized learning experience. The use of ICT has the potential to reduce the digital learning divide. Finally, both ICT enabled education and ICT education can improve the quality, equity and efficiency of education systems.

ICTs provide the opportunities for students to develop a set of core competencies to meet the demands of the new education vision.

5.2.3.2 Recommendations for innovative educational policies and practices

To fully maximize the opportunities and overcome the challenges of AEC engagement, higher education needs to strategically translate regional-level commitments into institutional-level ones in the realm of institutional policy making and implementation. Implications for strategic implementation that need to be addressed are: enhancing knowledge-based institutions, adopting ICT, and accelerating inter-connectivity.

First, HE needs to enhance knowledge-based international higher education institutions and provides key competencies needed for building human capital for knowledge-intensive sectors to expedite the progress towards the AEC Blueprint 2025 and strengthen its institution's leading role through expanding its knowledge-focused events and knowledge-intensive jobs. Next, HE needs to adopt ASEAN's ICT and innovation-driven 4IR plan and increase in the use of ICT for radically changing the traditional teaching styles through ICT-blended education delivery models to facilitate a more student-centered creativity, implement the institutional digital literacy plan, increase digital and ICT-related skills in students, and establish a technology incubator and accelerator centers by increase in diaspora talent engagement to support education. Then, HE needs to accelerate physical interconnectivity through deepening educational cooperation and networks offered by AUN. Cooperation with leading institutions in other countries (e.g., Singapore and Malaysia) is valuable for the local institutions in building their capacity and in reviewing their education to ensure that they are moving towards up-to-date, comprehensive, and high-quality education based on the region's growing regionalization and internationalization.

5.2.3.3 A roadmap for strategic management for HE institutions

A roadmap for strategic management for HE institutions was therefore proposed. The roadmap include 5 stages: 1) committing to uphold the quality education for capacity-building and providing upskill and reskill training, 2) developing into a knowledge-based international and TNE institution, 3) leveraging digitalization at the maximum level, building on ASEAN's technology and innovation-driven plan, 4)

consolidating internal higher education cooperation, embracing external economic relations, fostering educational interconnectivity and sectoral cooperation, and accelerating interconnectivity, and 5) accelerating interconnectivity.

5.3 Limitations of the Study

The study possessed these limitations. First, this study employed a qualitative method so it is unrepeatable. Second, this was a documentary study, using public document means a document written and published by ASEAN authorities with the purpose to present information, policies, guidelines or knowledge messages. The study was limited to the documents that aimed at informative purpose. The other purposes of the document, goals or assumptions of the document were ignored. In addition, statistics and figures in this study were drawn from the documents.

5.4 Suggestions for policy implementation and future study

5.4.1 Practical suggestions for policy implementation

For policy implementation, the roadmap proposed in this study needs to be adjusted as needed according to the higher education institutional goals, as circumstances evolve and make the best decisions you can, with the information you have available.

5.4.2 Suggestions for future study

This study employed a qualitative method which it is unrepeatable. Future inquiry should include a quantitative method or a mixed-method. In addition, as this study looked at the whole picture of ASEAN, further inquiries should gear towards member countries



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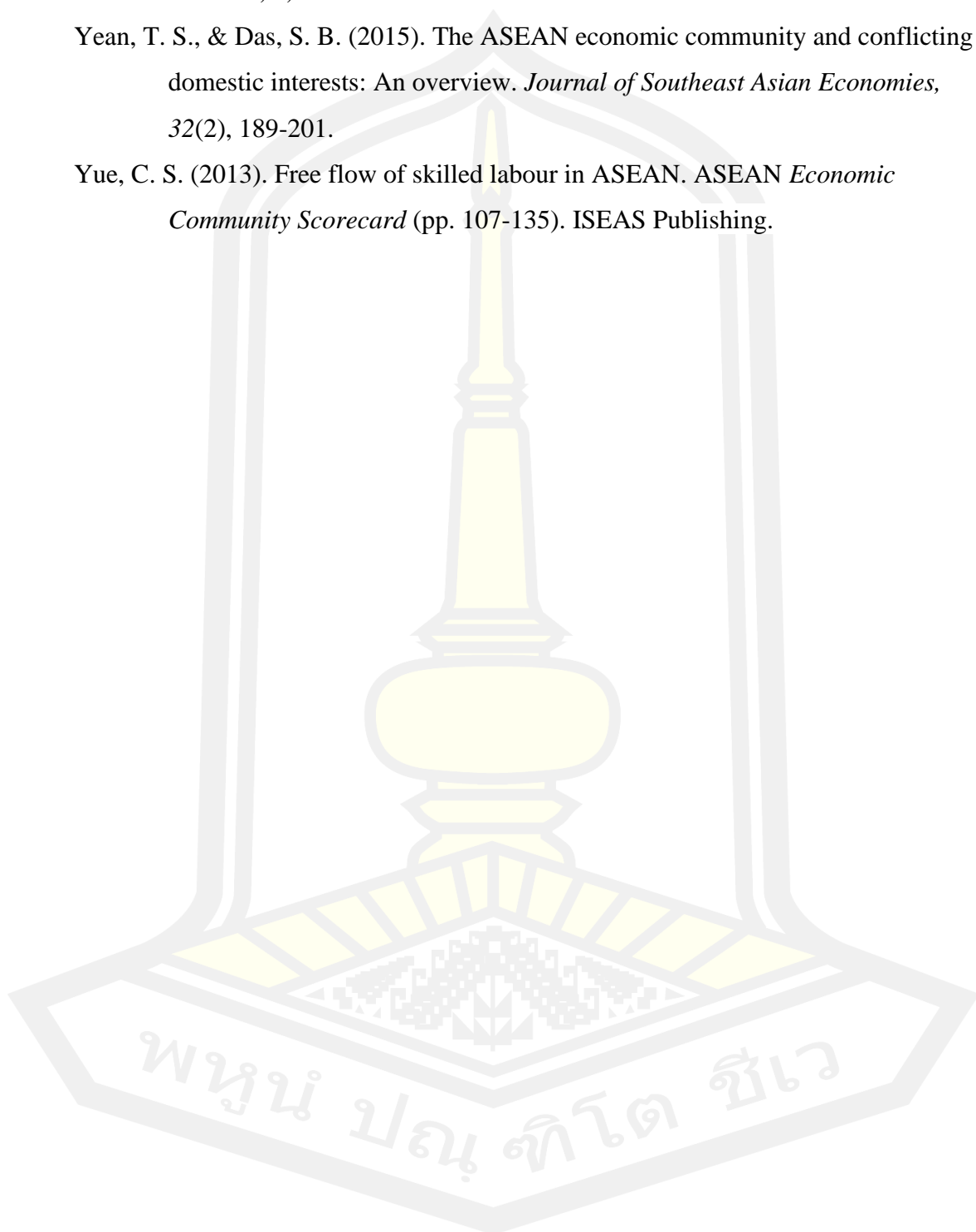
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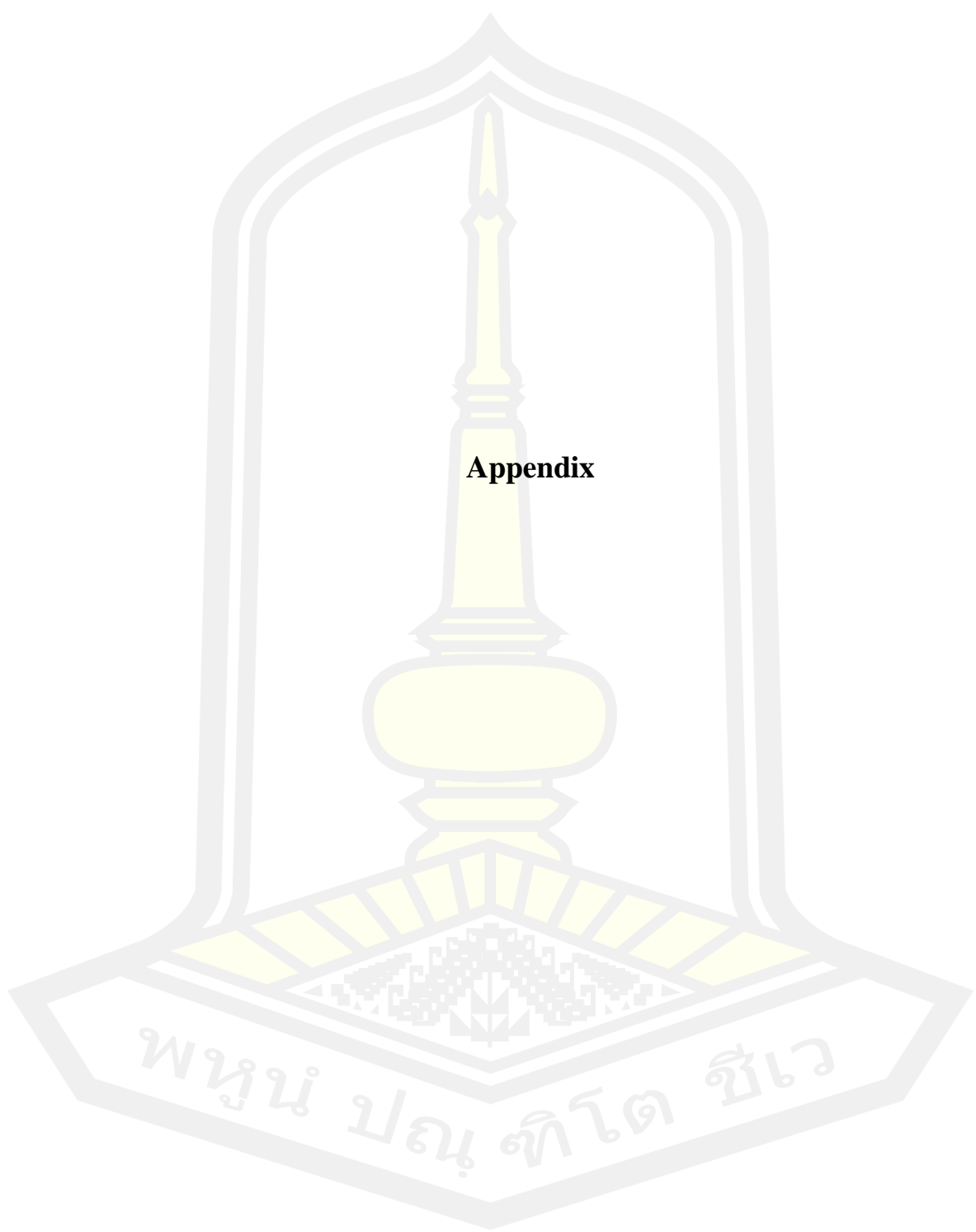
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Appendix

พหุจน์ ปณฺ ทัต วิเว

Appendix Bio-data of the three experts

1. Dr. Wilaiporn Laohakosol

She received a Colombo scholarship to study for B.A. in Australia, another scholarship to pursue M.B.A. in the Philippines and the last scholarship to do Ph.D. in Business in Thailand. She had taught at Faculty of Business and Administration, Kasetsart University and then moved to Mahidol University before she became the director of several international enterprises which she had to do business with all the ten ASEAN member states. Lately, she has resumed her work for a Ph.D. program at School of Management, Shinawatra University. She has been in business and education more than for 35 years.

2. Asst. Prof. Dr. Prapaipan Aimchoo

She received B.Ed. in English from Chulalongkorn University, M.A. in English from Srinakharinwirot University and a scholarship to pursue Ph.D. in Literature at National University of Singapore. She had worked for international department, Ministry of Education where she was in charge of education cooperation with ASEAN countries before she moved to English Department, Faculty of Humanities, Srinakharinwirot University, where she was the head of the department and vice dean. Lately, she has resumed her work at English Department as an expert. She has been in international education for 35 years.

3. Dr. Darunee Chooprayoon

She received B.Ed. in mathematics, M.A. in linguistics and Ph.D. in higher education, Chulalongkorn University. She has been working for Krirk University for almost 35 years. She was the head of English department and was the dean of Faculty of Liberal Arts. Lately, she is the director of the language institute as well as director of academic affairs who works in cooperation with Chinese international school, Krirk University. She has been in international education for almost 35 years.

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