CHAPTER 1
INTRODUCTION

1.1 Significance of the Research Problem

1.1.1 Retrospective, Contemporary and Prospective Views of Worldwide Higher Education

Universities originated in Middle Age Europe, but it was not until the 12th and 13th centuries that an organised higher education system emerged from Paris and Bologna complete with faculties, programme of study, exams and academic degrees (Haskins, 1923). Despite the obvious and significant contrasts between these original universities and contemporary higher education institutions, the higher education system of today can be traced to medieval origins, although contemporary higher education is in a process of transformation and is becoming more business like and corporate in its operation (Aronowitz, 1998; Byrd, 2001).

Higher education has a growing role in the worldwide knowledge economy, and as well as fostering economic development and opportunity for individuals, it also promotes political democracy, international economic trade and cultural diversity (Marginson, 2010). Sizeable amounts of literature outline the advantages of higher education to nations and the international economy (Carnevale and Desrochers, 2002; Gürüz, 2008; Marginson, 2000; Stiglitz, 1999), but despite global agreement as to the benefits of higher education, each nation or region exhibits distinct differences in the structure and organisation of its higher education system. Since the inception of higher education in the Middle Ages, there have been debates about how it should be organised and managed (Clark, 2001). Furthermore, there is increasing evidence to suggest that contemporary higher education is in crisis and experiencing rapid and dramatic change. According to Drucker (in Lenzner and Johnson, 1997; 122 -128):

"...thirty years from now, the big university campuses will be relics. Universities won't survive... totally uncontrollable expenditures, without any visible

improvement in either the content or the quality of education, mean that the system is rapidly becoming untenable. Higher education is in deep crisis…"

While this view suggests a paradigm shift in higher education's structure and organisation, according to Inayatullah and Gidley (2000), changes in higher education have been evolutionary rather than revolutionary. The key drivers of change in higher education can be separated into six main categories, which are;

- The massification of higher education
- The cost of higher education
- Internationalisation and student mobility
- Public versus private funding
- Global economic change, and
- The internet and technology

Each of these is now considered in turn before considering the state of higher education worldwide, and more specifically, higher education in Thailand.

1.1.2 The Massification of Higher Education

Over previous decades, the number of students enrolled in higher education worldwide has increased and is reflected by the increasing mobility of students and scholars, the movement of academic programs and institutions across borders, the extraordinary impact of technology (Altbach et al. 2009), and the participation of non-traditional higher education populations, particularly females, part time students, and older age groups. The growth of part-time students is related to job market factors with employers often requiring their staff to enhance their job competencies (Shin and Harman, 2009). Figure 1.1 illustrates the worldwide growth in higher education through student enrollment over the past decade.

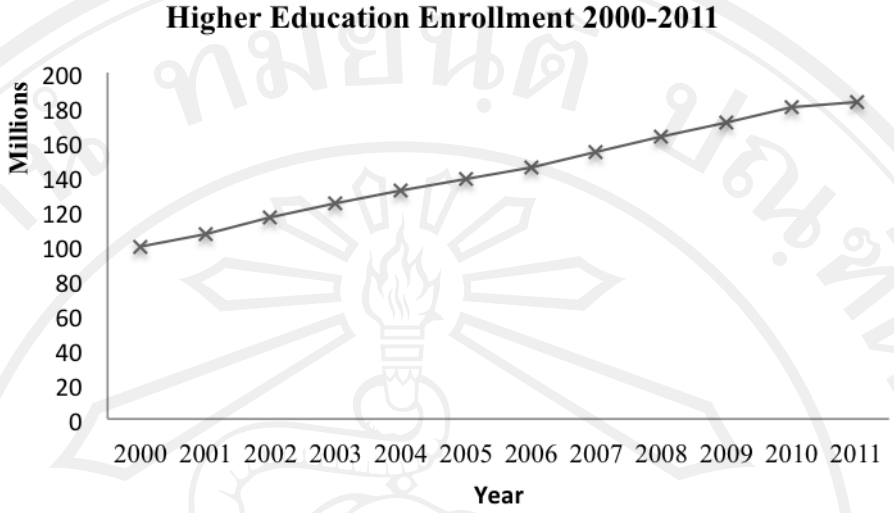

Figure 1.1 Higher Education Enrollment
(World Bank Edstats Data Query, 2013)

Higher education has been changed by massification growth in the knowledge economy, which created jobs and occupations where a secondary school education was no longer enough. More demand existed for highly educated people to fill the tertiary education needs of the economy, but it became clear that increasing student numbers could not be accommodated by simply expanding the existing and relatively elitist higher education system (Beerkens-Soo and Vossensteyn, 2009).

Massification placed pressure on higher education institutions and provided opportunities for all, not just the elite. From a business point of view, such massification allows universities to increase their income, however, the cost of higher education is still increasing (Johnstone and Marcucci, 2007).

In Thailand, over 1.9 million students are currently enrolled in the higher education sector and participation rates of university age students has increased significantly over the previous few years from an average enrollment of 26% of university-age population to the current average of 40% (MOE, 2010). The new policy (1999 National Education Act) of 9-years of compulsory education and 12-years free basic education will continue to result in a large increase of high school graduates eligible to enter university. Data suggests that 0.6 million students entered university in Thailand in 2000 compared to an estimated 1.8 million in 2016, an

increase of 150 % over a period of 15 years. Such increases in enrollment beg the question of who will fund and pay for students' university education.

1.1.3 The Cost of Higher Education

Funding higher education is highly variable according to the country and region. For example, in Europe and some parts of the USA, there are plans and policies to reduce public spending on higher education. Conversely, Norway and Mexico plan to increase spending on higher education (Varghese, 2009; EUA, 1999). In other countries, funding varies considerably according to the particular subject, for example there are plans to increase higher education spending on science and technology in Germany, the UK, India and China (Marginson, 2010), while in Mexico and Russia, there are plans to increase student support systems rather than direct spending solely on academic systems.

The cost of higher education has increased significantly over time (Archibald and Feldman, 2006; Clark, 2011; Johnstone 2003, 2004) and is now considered essential to an individual's career success. Some argue that higher education has become as important as healthcare and the expense has grown year on year (OECD, 2003).

The cost of higher education also has impacts on where students are choosing to study and is linked to the internationalisation of higher education and the mobility of students. How students fund their education and the associated debt burden on students and graduates is putting pressure on universities and their management. For example, recession and global economic crises affect household income and the ability to pay for higher education (Altundemir, 2012; Varghese, 2001; 2009)

As a result, universities are attempting to cut costs without loosing quality or access (Grimshaw, et al. 2004; Giménez and Martínez, 2006; Robst, 2001). They are attempting to reduce costs through changes to five key areas - academic, general resources, human resources, outsourcing and technology.

In terms of academic changes to cut costs, universities are phasing out some less popular or successful academic programe, and consolidating or regionalising their departments and colleges. From a resources perspective, universities are attempting to

conserve energy and use their resources more efficiently. In terms of human resources, positions are being eliminated, pay frozen, new travel policies and expense systems implemented and an increase in employee contributions to healthcare and pensions. In relation to changes in human resources policies, universities are often choosing to outsource various operations to reduce costs. Finally, in terms of technology, universities are attempting to leverage technology and software solutions to improve the efficiency or student applications and enrolments, finance, reporting, and all other aspects of university operations. In addition, technology is often being positioned as a fundamental way to change delivery of courses and the way universities teach courses (Kogan et al. 2006). Coincident with changing costs has been an increase in the internationalisation of higher education and student mobility.

1.1.4 Internationalisation and Student Mobility

International student mobility has always been a feature of higher education, with students often moving to study elsewhere. Universities have also met the needs of internationalising education by moving the delivery of their courses through the opening of branch campuses in other countries, and the provision of distance learning.

Franchising occurs when the delivery of the full course, or part of it, occurs in another country, often through a branch campus. In Thailand branch campuses are usually independent campuses of foreign universities operating in a host country and most predominantly feature universities from the USA, UK or Australia. They are frequently in collaboration with domestic private institutions and public universities. Twinning happens when a course is jointly designed and offered by two institutions.

A further key aspect of higher education mobility is via the internationalisation of teaching and research staff. This occurs due to shortages of skilled staff in developed countries (Bigalke and Neubauer, 2009), to enhance the prestige of foreign institutions (Kogan et al. 2006) or to attract foreign students (EUA, 1999).

Student mobility is a key factor affecting higher education (UNESCO, 2006) and the cross-border movement of students and regionalisation of higher education is rapidly increasing (World Bank, 2011). The flow of students worldwide is often from developing countries to more developed countries, with the USA, UK, Germany, France, Canada and Australia being major host countries for foreign students. The

major source of international students is from China, India, Korea and Japan (UNESCO, 2006). According to the literature, 70% of internationally mobile Asian students choose to study in the USA, UK or Australia. The flow of students is in a state of continual flux, with more recent patterns suggesting the majority of Asian students are choosing to study in Australia. In Thailand, the ASEAN Economic Community 2015 (AEC 2015) will have significant impacts on Thai higher education with far easier mobility across the Southeast Asian region for staff and students (Shin and Harman, 2009; OHEC, 2010a).

1.1.5 Global Economic Change

A key factor affecting all aspects of higher education in recent years has been global economic crises, which affect both governmental funding of universities and students' behaviour in terms of choosing to study at university (Peresamy et al., 2011). There have also been changes to the type of economy, with the growth of the knowledge-based economy meaning higher education has become more important than ever as changes to labor and employment require knowledge workers (Office of United Nations Population Fund Country, 2011). The key characteristics of changes to the global economy and the emergence of a globalised knowledge based economy are as follows:

- Global trade has become increasingly important for economic growth
- There has been an increase in the service sector and a high proportion of jobs exist in the service sector
- Globalisation implies an easy cross-border flow of goods and services
- There are less trade barriers
- The cost of transport is lower
- IT has increased and is contributing to the 'death of distance'
- There is an increasing knowledge content in goods and services
- There has been an emergence and development of a technological infrastructure to access knowledge

- There have been increases in understanding of the human capacity to produce and absorb knowledge
- Higher education has become critical and important for all

The implications of a knowledge economy are wide-ranging and significant for higher education. Firstly, the changing nature of the global skills market means higher education must adapt to meet needs of students. This involves changing and adapting courses and recruiting appropriate staff to design the curriculum and deliver courses to meet the needs of students and industry (Hong, 2011). The ubiquitous need for higher education driven by the knowledge economy has also created the expansion, and massification of higher education (Moon, 2007). Thus the expansion of higher education, changing mechanisms of funding, changing delivery mechanisms and the increase in private sector higher education is strongly linked to the process of globalisation and development of the knowledge economy (Office of United Nations Population Fund Country, 2011).

1.1.6 Responding to Drivers of Change: Governance Risk Management and Compliance (GRC)?

GRC is one framework (Suvannasarn, 2010), which might allow universities to achieve sustainability by responding to the key drivers of higher education change. But, GRC must be considered from the perspective each country faces in terms of its higher education system. Therefore before GRC is considered in relation to higher education in Thailand, it is necessary to consider the unique context of Thai higher education by placing it in the context of higher education worldwide.

1.1.7 The Worldwide State of Higher Education

To cope with changes in the global economy, public universities in many countries have changed their organisational processes to achieve their objectives. One such change has been the degree to which universities experience autonomy. Table 1.1 illustrates the extent of autonomy in universities worldwide.

Table 1.1 The Autonomy Experienced by Universities Worldwide (Adapted from OECD, 2003)

	1 Own their Buildings and Equipment	2 Borrow Funds	3 Spend Budgets to Achieve Their Objectives	4 Set Academic Structure/ Course Content	5 Employ and Dismiss Academic Staff	6 Set Salaries	7 Decide Size of Student Enrolment	8 Decide Level of Tuition Fees
Mexico	✪	✓	✪	✪	✪	✓	✪	✪
Netherlands	✪	✪	✪	✓	✪	✪	✪	✓
Poland	✪	✪	✪	✪	✪	✓	✪	✓
Australia	✪	✓	✪	✪	✪	✪	✓	✓
Ireland	✪	✓	✪	✪	✪	✓	✪	✓
United Kingdom	✪	✓	✪	✪	✪	✪	✓	✓
Denmark	✓	✪	✪	✓	✪	✓	✪	✓
Sweden	✓	✓	✪	✪	✪	✪	✓	
Norway	✓		✪	✪	✪	✓	✪	
Finland	✓		✪	✓	✪	✪	✓	
Austria	✓		✪	✪	✪	✪		
Korea (National-Public)			✓	✓		✓	✪	
Turkey				✓	✓		✓	
Japan (National Public)				✓	✓			

Legend: Aspects in which institutions:
✪ have autonomy
✓ have autonomy in some respects

According to Table 1.1, the degree of autonomy granted to public universities differs significantly both between countries, and within countries. Some countries grant full autonomy to public universities to empower themselves, focusing on policy formulation, auditing, strengthening governance of the university council and university management, and promoting good governance. In Thailand, the increasing shift towards autonomy in public universities has led to the creation of the Thai public affiliated universities (Organisation for Economic Co-operation and Development, 2003). Table 1.2 shows the key features and characteristics of higher education in selected countries, particularly those in the Southeast Asian region.

Table 1.2 Status and Features of Higher Education in Asia

Countries	Features	Key points and Characteristics
Malaysia	Corporatisation of Public universities	- 1995: Amendments to the Universities and University Colleges Act of 1972 - Changes in university governance structure - Diversification of revenue - Institutionalisation of corporate managerial practices - Establishment of Malaysia Qualifications Agency (MQA)
Singapore	Corporatised Universities	- 2000: Government review of public university governance and funding - Diversification of financial resources - University Endowment Fund - Faculty delinked from civil service - Performance – based salary - 2005: Corporatisation of public university
Indonesia	Autonomous Universities	- 1999: 2 Laws – PP60 and PP61 - New Paradigm in university management: quality, autonomy, accountability, accreditation and evaluation - 2000: 4 selected public universities to function as "guides" - Change in university governance - Change in financial management – income generation - Internal and external quality control

Table 1.2 Status and Features of Higher Education in Asia (Continued)

Countries	Features	Key points and Characteristics
Philippines	Charter Universities	University charters Strong influence of professional board examinations Several accreditation bodies Commission on Higher Education (CHE) gives financial grants and administrative deregulation to accredited institutions
Vietnam	Consolidation of Higher Educations	- Mergers to be comprehensive universities - More autonomy to public universities (Human resource management, curriculum development, utilising resources) - Setting up private universities - Applying international programs - Establishing international model universities - Decentralised management - Institutionalised tuition fees - Discontinued job placement - Quality assurance and accreditation - Applying credit system
Cambodia	Consolidation of Higher Educations	- 1997 Decree: Public Administrative Institution (PAI) - 8 of 31 public Higher Education Institutions (HEIs) are PAIs - 2007: Education Law (better governance of higher Education) - Most public HEIs are civil servants

Table 1.2 Status and Features of Higher Education in Asia (Continued)

Countries	Features	Key points and Characteristics
China	Consolidation of Higher Educations	- 1990: Governance structural reforms – all universities under the Ministry of Education and comprehensive universities - HEIs managed at two levels: national and provincial - Decentralisation in higher education administration (enhanced role of provincial government and enlarge autonomy of HEIs) - 1997: Financial reforms – charge fee from student
Japan	National University Corporations	- 2004: Universities become independent administrative corporations - Competition (resource, students) - Clarify management responsibility – setting up new institutions, schools and department: designing curriculum and management - University presidents to be appointed by Ministry of Education, Culture, Sports, Science and Technology (MEXT) - Revenue – associated business - University evaluation and Quality Assurance - Non – public servant status
Korea	University Restructuring	- Diminishing social demand - University restructuring: merger and acquisition, strategic alliance - Specialisation through restructuring - Indirect president election methods

Table 1.2 Status and Features of Higher Education in Asia (Continued)

Countries	Features	Key points and Characteristics
		- Possibility of changing national universities into corporate bodies Strong support for leading universities
India	Higher Education Crisis	- Massive higher Education system e.g. over-production, unemployment, student unrest, deterioration of standards. - Ritualisation of distance education - Ineffective quality control - Decline of state patronage - Private initiatives in higher education - Uncertain future
Thailand	Autonomous Universities	- The Higher Education Long Range Plan (1990 -2004) - 14 Autonomous Universities - Faculty delinked from civil service - Alter native funding - Quality assurance initiatives
Sources: Bigalke and Neubauer, 2009; Marginson, 2000; Mok, 2006; Rosenstone, 2004; UNESCO, 2006		

As shown in Table 1.2, while higher education as a common goal, it is distinguished geographically by its organisation, nuances and management. So far, global higher education has been placed into context, but this thesis focuses on higher education in Thailand, which is now considered in detail.

1.1.8 Higher Education in ASEAN and Thailand

1.1.8.1 Background

Higher education in Thailand comprises more than 169 institutions (OHEC, 2010b). The main objective of higher education in Thailand is to;

- To provide higher education and high level professional education emphasising academic excellence and quality graduates
- To conduct research
- To provide academic services
- To preserve and nurture of country

Thailand's religious and cultural heritage, while developing the country's resources (OHEC, 2010b). At present, a student capacity of approximately 800,000 places exists, but with a current student enrolment of around 600,000, there is spare capacity in the system. This spare capacity varies according to particular institutions and subject areas. Due to the changing educational environment, Thailand's higher education system is presently trying to extend its profile to become a leading provider of higher education in Southeast Asia and beyond (ASEAN, 2008).

In 1997, Thailand faced an economic crisis, which in turn led to a crisis of education, resulting in the Thai government applying for financial assistance from the Asian Development Bank (ADB). One suggestion from the ADB was to let public universities manage themselves to reduce governmental spending, while also minimising bureaucracy. Bureaucracy in particular was shown by Nitikraipot (1999) to be reducing the effectiveness and global competitiveness of Thai universities. More recently, Kantabutra and Tang (2010) suggested public universities in Thailand are currently stagnating in terms of the quality of education and research. This is particularly concerning given the forthcoming 2015 ASEAN Economic Community (AEC), when Thai higher education will be exposed to significant impacts resulting from a free flow of population, trade and service. Before attempting to understand these impacts, there is a need to outline the context of ASEAN and the AEC 2015.

1.1.8.2 The AEC 2015

The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967 with five members now comprises ten Southeast Asian countries. The countries along with their current population, GDP per capita and higher education enrolment are shown in Figure 1.2.

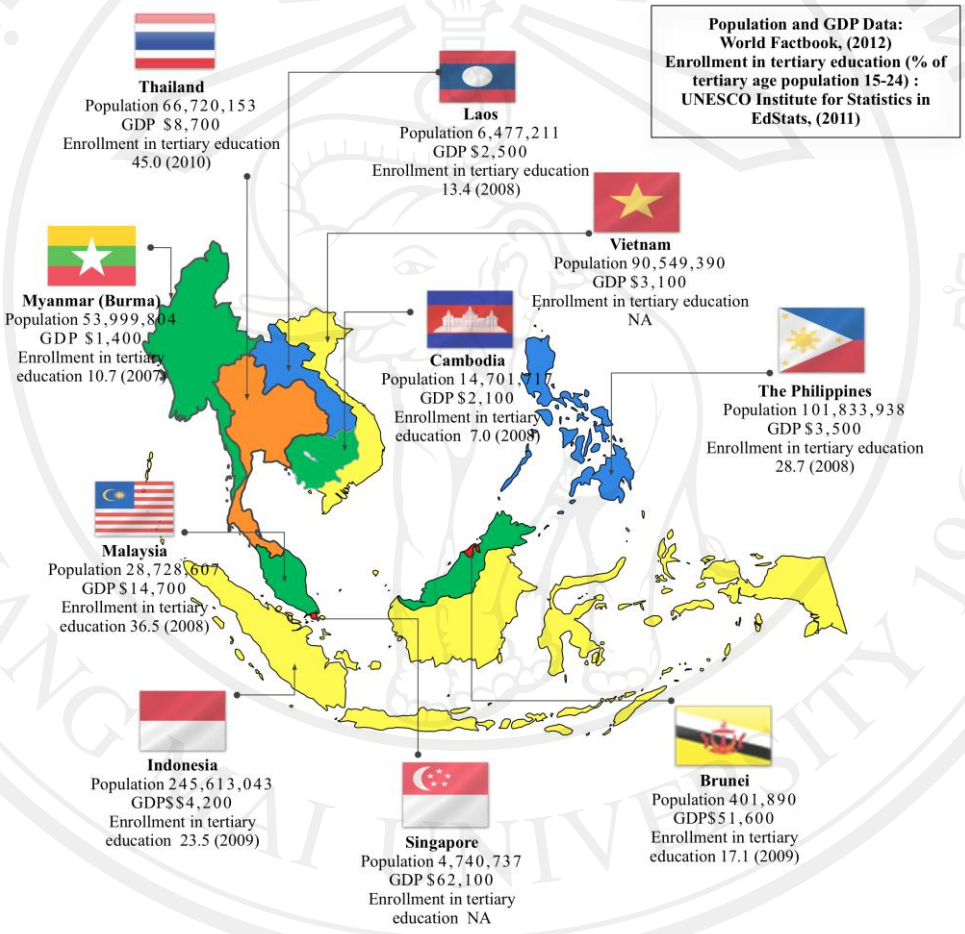

Figure 1.2 Map of ASEAN Including Population, GDP Per Capita (as of 2010) and Student Enrolment in Tertiary Education

At the 12th ASEAN Summit in January 2007, ASEAN leaders agreed to establish the ASEAN Economic Community (AEC) by 2015 to transform ASEAN into a region with a free movement of goods, services, investment, skilled labor, and capital. The AEC is the realisation of the end goal of economic integration in Southeast Asia, as illustrated by the AEC vision for 2020 (ASEAN, 2009), which is based on a convergence of the interests of ASEAN member countries to deepen and

broaden their economic integration through new and existing initiatives with clear timelines. ASEAN countries must prepare themselves to compete with the changing global economy (ASEAN, 2009) and other powerful economic regions, hence the AEC will establish ASEAN as a single market and production base to drive the region to become more dynamic and competitive. This will include new mechanisms and measures to strengthen the implementation of its existing economic initiatives. The aim is to accelerate regional integration in priority sectors, facilitate movement of businesses, skilled labor and talent, and strengthen the institutional mechanisms of ASEAN (ASEAN, 2008). Figure 1.2 illustrates that population, GDP per capita and enrolment in higher education are variable across the ASEAN region. For Thailand, this variability, in combination with the free flow of people and capital will produce significant challenges as well as, opportunities. The effects of the AEC 2015 pose major risks to the educational sector in Thailand, particularly higher education, which, unlike compulsory primary and secondary education, is more exposed to the potential economic changes likely to arise from the AEC.

In response to these potential challenges, the ASEAN University Network (AUN) was established in November 1995 with 13 universities from 7 ASEAN member countries. The objective of the AUN is to work in four key areas comprising student and faculty exchange, academic status, information sharing, and collaborative research between ASEAN countries. Currently, the AUN has 26 member universities, four of which are in Thailand: Chulalongkorn University, Burapha University, Mahidol University, Chiang Mai University (ASEAN, 2009). Despite the presence of the AUN, the Thai Ministry of Education showed that there is little cooperation between educational institutions in Thailand and there is no clear guidance on developing collaborative objectives, either domestically, or internationally (OHEC, 2010a).

The Office of Higher Education Commission (OHEC), under the jurisdiction of the Thai Ministry of Education (MOE) has begun to focus on the impacts of the AEC 2015, and in 2010, the Thai education report on strategic planning (OHEC, 2009b) placed strong emphasis on the effects of ASEAN on the education sector in Thailand. The report noted that the free movement of people throughout the AEC would result in an easier movement of students, staff and lecturers across all

educational sectors. Free trade and service also affects the transfer of knowledge, language, and culture within ASEAN countries. Organisations within the education sector must therefore adapt to remain competitive in the region and teach students and staff how to prepare for the effects of the AEC. In response, the Thai government has encouraged and supported the educational sector to achieve academic excellence in research and development within ASEAN. Thailand has three major strategic plans in preparation for the AEC 2015; increasing the ability of graduates to reach international standards, the development of higher education to reinforce and develop the ASEAN region itself, and supporting the function of higher education within ASEAN (OHEC, 2010a).

So far, this chapter has described the forthcoming AEC 2015 and outlined the context of Thailand's higher education sector. The next section analyses the challenges and opportunities for Thailand's higher education system from a top-level policy perspective. This general high-level perspective is then transposed to provide an insight into the general management challenges Thai institutions might face, before introducing GRC to illustrate how individual higher education organisations might respond to the AEC 2015 and other management challenges.

1.1.8.3 The AEC 2015; Challenges and Opportunities?

Table 1.3 outlines the key challenges associated with the AEC 2015 as well as corresponding government planning, the potential responses expected from higher education institutes and the associated literature.

Table 1.3 The AEC 2015 Challenges to Thai Higher Education

The AEC 2015 Challenges	Thai Ministry of Education Strategic Planning Response	Potential Grass-roots Responses from Higher Education Institutes
Free flow of academic staff and students	Increase the ability and quality of graduating students to reach international standards	- Increase the English skill of Thai students to use in their work place and daily life - Increase employability and cross-cultural skills

Table 1.3 The AEC 2015 Challenges to Thai Higher Education (Continued)

The AEC 2015 Challenges	Thai Ministry of Education Strategic Planning Response	Potential Grass-roots Responses from Higher Education Institutes
Free flow of trade and service	Increase the strength of educational institutions to develop ASEAN as a powerful economic region	- Increase the ability and skill of lecturers to reach international levels - Support ASEAN knowledge and innovation in educational institutions - Develop curriculum to maintain quality based on international standards - Develop academic and research excellence - Develop and contribute to the ASEAN educational system
Free flow of knowledge culture and language	Supporting the role of Thai education in ASEAN	- Support the role of leadership in educational institutions, which is related to the AEC, especially social and cultural aspects of ASEAN - Focus on the AEC and the role of Thai educational institutions, which develop according to both positive and negative aspects of Thailand - Support Thailand's higher education institutes to become a center of education excellence - Develop ASEAN institution information to create a profile across the region for particular institutions
Sources: AUN, 2010; Autonomedia, 2009; Hong, 2011; Kirtikara, 2004; Moon, 2007**;** Nordin, 2011; OHEC, 2010a ,2009b; Sawchuk, 2008; Witte, 2000		

As Table 1.3 shows, the primary challenges of the AEC 2015 are the free flow of staff and students, which will demand a high level of English language and cross cultural skill to enable Thai universities to effectively interact with the AEC population of staff and students (Peresamy et al. 2011). The free flow of trade and service will require support from universities in terms of establishing industry collaboration and innovation. Such innovation and collaboration will be important not just for Thai universities, but also as a stimulus for the Thai economy which will be a chief participant in the AEC's economic prosperity. Finally, a critical challenge is creating a profile for Thai higher education and institutions within the AEC 2015. Without such a profile, Thai higher education could falter if other ASEAN nations create a prominent identity for their higher education system (Severino, 2011).

In considering these challenges further, a SWOT (strengths, weaknesses, opportunities, and threats) analysis was undertaken to understand more clearly the current state of Thai higher education, and is shown in Table 1.4.

Table 1.4 SWOT Analysis Preparing Thai Higher Education for the AEC 2015 (Translated and Adapted from OHEC, 2010a)

Strengths	Weaknesses
- Thailand education institutions are members of international networking corporations such as the ASEAN University Network (AUN), the Association of Southeast Asian Institutions of Higher Learning (ASAIHL), the ASEAN-European Academic University Network (ASEA-UNINET), the Association of Universities of Asia and the Pacific (AUAP), the University Mobility in Asia and the Pacific (UMAP), the Association of American University (Internet II).	- Poor English teaching and learning when teaching students to use English language at an international level. There is a general weakness in English within Thai higher education. - Thailand educational institutions, lecturers, staff and students do not have useful and appropriate knowledge about the AEC 2015. Moreover, there are no courses to teach or prepare students for the AEC 2015. - Students who graduate do not have the ability to work in manufacturing

Table 1.4 SWOT Analysis Preparing Thai Higher Education for the AEC 2015 (Translated and Adapted from OHEC, 2010a) (Continued)

Strengths	Weaknesses
- Having 844 international curricula to support international students and academic cooperation with other countries. - Quality standards for science and technology curricula. - Many higher educational institutions in Thailand are recognised by the quality of international academy and competition. - Strong academic reputation in niche programs such as heath science, tropical medicine, topical agriculture, tourism, industrial agriculture. - Excellent academic center/ research center to have academic cooperation and research internationally to improve competitive level of Thailand. - Office of Higher Education Commission (OHEC) set Thailand Higher Education Standards to monitor and control quality in academic education management. - Academic institutions in economic areas have the ability to provide academic service in the local community.	and service industries, which are a key part of the AEC. - Many Thai educational institutions have low understanding and knowledge about free trade and service so they do not prepare to compete as an educational service in the AEC. - There is not enough cooperation with international academic institutions who have offices in Thailand. - There is more on teaching than research and development. - The number of academic staff with PhDs is below international standards. - There is little cooperation between education institutions in Thailand and there is no clear guidance on developing collaborative objectives. - Academic standards in Thailand are different to international standards. - Academic competition in Thailand is lower than in Singapore and Malaysia. - There is not enough deep knowledge and understanding about how to

Table 1.4 SWOT Analysis Preparing Thai Higher Education for the AEC 2015 (Translated and Adapted from OHEC, 2010a) (Continued)

Opportunities	Threats
- International academic organisations represented in ASEAN such as Southeast Asian Ministers of Education Secretariat (SEAMES), Southeast Asian Ministers of Education Organisation (SEAMEO), SEAMEO Regional Centre for Higher Education and Development (SEAMEO RIHED), SEAMEO Regional Tropical Medicine and Public Health Network (SEAMEO TROPMED), UMAP International Secretariat (UMAP IS), United Nations Educational, Scientific and Cultural Organisation (UNESCO) and AUNS. - Good geographic location - Thailand is central in ASEAN, linking many countries both in and outside of ASEAN. Also, Thailand is in an economic corridor and economic route in ASEAN-countries such as the Greater Mekong Sub region (GMS) and Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT). Thailand has a clear policy to be an academic center for neighboring countries (e.g. Lao, Vietnam, Malaysia, Singapore, Myanmar, Indonesia).	manage the educational system and related compliances to service education in the AEC. There is little cooperation with the ASEAN to provide scholarships to people outside Thailand and few opportunities to collaborate and work together. - There are many universities with academic excellence in ASEAN countries, such as Singapore, Malaysia, Vietnam so educational institutions in Thailand are less competitive/ attractive to students. - Many competitive education institutions exist because of free trade and service across ASEAN. - There is no currently credit transfer or centralised system to approve/validate academic qualifications in ASEAN countries. - ASEAN countries have policies to retain people with high performance and excellent ability to study and work in their country (e.g. Singapore).

Table 1.4 SWOT Analysis Preparing Thai Higher Education for the AEC 2015 (Translated and Adapted from OHEC, 2010a) (Continued)

Strengths	Weaknesses
- The ASEAN charter and 2020 Vision acts as a framework to promote collaboration between ASEAN members. - Free flow of trade and services in ASEAN will increase work skills and language ability. - Academic status is an important rule related to the 3 pillars of the ASEAN community (ASEAN Political-Security Community: APSC, ASEAN Economic Community: AEC and ASEAN Socio-Cultural Community: ASCC).	- Free movement of people has potential to cause disease, illegal substance abuse and crime in Thailand, which could in turn affect Thailand's higher education system. - A lack of preparedness to deal with the movement of people in an economic area.

So for this chapter has identified the key challenges represented by the AEC 2015 and has presented a SWOT analysis outlining the general state of Thailand's higher education with regard to the AEC 2015. This paper now considers how the AEC 2015 and other challenges and opportunities translate into management requirements within Thai higher education institutions.

1.1.8.4 Management Requirements of Thai Higher Education Institutions

Firstly, the administrative and organisational structures of the Thai education system have been mandated to change through the enactment of the 1999 National Education Act with an emphasis is on the decentralisation of administrative responsibilities to a local level with the consolidation of education planning at the central level (MOE, 2008b). This translates to changes to autonomy levels in Thai universities, particularly the newly created Thai public affiliated universities. Table 1.5 compares the autonomy given to the various types of higher education institutions in Thailand.

Table 1.5 Varying Levels of Autonomy in Thai Universities (Source: MOE, 2008b)

Type	Autonomy/Regulation Administration			OHEC Roles			
	Academic	Personnel	Financial	Policy	Higher Education Standards	Financial Support	Monitoring and Evaluation
Affiliated Public Universities	Autonomy	Autonomy	Autonomy	✓	✓	✓	✓
Public Universities	Autonomy	Partial Autonomy	Government regulation	✓	✓	✓	✓
Private Universities	Autonomy	Autonomy	Autonomy	✓	✓	No Support	✓

1.1.8.5 The Thai Public Affiliated (Autonomous) Universities

Thailand has 185 universities in 9 categories namely, 40 Rajaphat universities, 34 public universities and private universities, 28 Rajamangala universities, 13 private and public colleges, 6 private institutions, 2 open public universities as of 2013, 15 have received mandates to become public affiliated universities (National Information Center, 2013, OHEC, 2010b). Among this group, ten have finished their evolution from public to affiliated public university and four are new universities, which were conceptualised as affiliated universities from the outset. The process of transforming from a public, to an affiliated public university, initially results in two main challenges. Firstly, some lecturers and staff are fearful of losing their perceived permanent employment status due to new infrastructures and systems, and secondly, there is a legacy of bureaucracy, where there is a habit to blindly follow leaders rather than be creative and productive at work. Such a mentality is not commensurate with the new affiliated status. In an attempt to overcome these challenges, a significant number of management tools have been applied to universities in Thailand (e.g. Public Sector Management Quality Award, Thailand Quality Award and Results Based Management). These tools are mainly concerned with piecemeal improvements

in quality management for specific university stakeholders, and have achieved limited success (Suvannasarn, 2010). One potential framework, which attempts to integrate organisational ethos and allow universities to successfully identify and meet their objectives is Governance, Risk Management and Compliance (GRC). The key advantage of GRC is that people, process and technology are central aspects of the framework and are in alignment with the philosophy of the affiliated status, as well as its aim of achieving successful and sustainable management (Suvanasarn, 2010; PricewaterhouseCoopers, 2004; Tarantino, 2008). Therefore, if Thai affiliated universities can successfully implement and maximise the potential of GRC, the gap between current and desired management scenarios could be reduced to secure their future as higher education institutes in Thailand, and beyond. This is of particular importance in relation to the single ASEAN Economic Community (AEC), which will be established in 2015 and have significant impacts on Thai higher education. Before assessing how a GRC framework might help Thai affiliated public universities meet their management challenges, there is a need to understand the current higher education management situation and potential management requirements of the affiliated status.

1.1.8.6 Management Challenges of the Thai Public Affiliated Universities

The central management challenges of Thailand's affiliated university status are related to seven scenarios set out by the Ministry of Thai Education (2008b), which are:

- Demographic change
- Energy and the environment
- Future employment
- Decentralisation of the country and development of local administrative bodies
- Peaceful conflict resolution and violence
- Post modern/post industrial world
- His Majesty the King of Thailand's initiation on the 'Sufficiency Economy'

Each of these scenarios is presented and considered in Table 1.6 with regard to the context of each scenario, and the potential impacts on Thai public affiliated universities. These impacts are based on a review of the appropriate literature

Table 1.6 Challenges of the Public Affiliated Status based on Future Educational Scenarios along with the Potential Management Impact on Thai Public Affiliated Universities

Thai MOE Educational Scenario	Context	Potential Impacts on Higher Education Institutions
1.Demographic Change	- Aging population - Declining birth rate - Immigration/ emigration - The AEC 2015	- Challenge to retain knowledge of retiring academic staff - Shortage of labor or lack of appropriate skills (brain drain) - Smaller number of students wishing to study in Thai higher education - Mobility of students and academic staff requires new skills - International mobility puts pressure on university competitiveness and domestic/global ranking
2.Energy and the Environment	- The Thai government's the Energy Conservation Program - The Energy Conservation and Promotion Act in 1992 - National Education Act, Thailand, 1999 - Global climate change	- Restrictions on energy use and resource limitations - Global warming - Educational quality index affected by energy and resource usage

Table 1.6 Challenges of the Public Affiliated Status based on Future Educational Scenarios along with the Potential Management Impact on Thai Public Affiliated Universities (Continued)

Thai MOE Educational Scenario	Context	Potential Impacts on Higher Education Institutions
3.Future Employment	- Economic structure of Thailand - Globalisation - Technological development - Information/ knowledge based society	- Information Technology becomes an instrument for public understanding and consumer protection - Dominant labor force works in international service and industrial sector - Requirement of real sector both in public and private sector - University must change to meet technology transformation in productivity and innovation in manufacturing and services - Universities must adhere to information technology accountability - International education level - Increased mobility of labor both domestically, regionally, and internationally - A large university division of size, budget, maturity, quality of staff, students, and reputation

Table 1.6 Challenges of the Public Affiliated Status based on Future Educational Scenarios along with the Potential Management Impact on Thai Public Affiliated Universities (Continued)

Thai MOE Educational Scenario	Thai MOE Educational Scenario	Thai MOE Educational Scenario
4.Decentralisation of the country and development of local administrative bodies	- Thai local government administrative bodies - Ministry of Education's One University - One Province (OUOP) project - Rajabhat University Act of 2004 - Rajamangala University of Technology Act of 2004	- Universities must seek cohesion and direction local public agencies - Collaboration of local/regional higher education institutes - Inadequate planning - Lack of proper funding - University networking issues - Educational quality index - Increased number of higher education institutes
5.Peaceful conflict resolution and violence	- Local/global conflicts - Political instability/ community relationships	- Complex socio-historical factors - Violence in Southern Thailand - To ensure good and meaningful employment - Opportunities in ASEAN and the world's Muslim community. - Lack of harmony in relationships of community
6.Post Modern/Post Industrial world	- Globalised economy - Multicultural society - Work-based education - Community based education - Internship/ apprentices	- Socialisation platforms need to be created within and outside of universities - Information-based society, knowledge-driven society, life-long education, and learning environment will affect university teaching and research

Table 1.6 Challenges of the Public Affiliated Status based on Future Educational Scenarios along with the Potential Management Impact on Thai Public Affiliated Universities (Continued)

Thai MOE Educational Scenario	Context	Potential Impacts on Higher Education Institutions
	- Economic uncertainty/crises	- Stakeholder expectation - To change from public university to be affiliated university - Proactive leaning infrastructure - Information Technology accountability - Public expects universities to contribute to national competitive advantage
7.His Majesty the King's initiation on "Sufficiency Economy". The philosophy means to lead a balanced life, without excess	- Sufficiency Economy philosophy - National Economic and Social Development Plan (2007-2010) - The 10th National Economic and Social Development Plan - Office of the Education Council	- Challenging budget allocation, which aims for balanced and sustainable development - Educational quality index - Good governance and management
Sources: Association of Southeast Asian Nations 2008; MOE, 2011; Ministry of Thai Public Heath, 2010; Office of United Nations Population Fund Country, 2011; ONESQA, 2009ว OHEC, 2008; Potar et al., 2011;Yamtraipat et al. 2004		

1.1.8.7 Public Vs. Private Funding

A critical driver of higher education is funding and there is a significant difference between private (for-profit) versus public universities. Private sector universities are a fast growing sub-sector of higher education and governments are increasingly seeking to reduce the burden of funding higher education, thus leading to quasi-public institutions with their own requirements and autonomy in generating funding and remaining sustainable. According to Kirtikara (2002), Table 1.7 indicates that the majority of universities in Thailand remain public, however this is expected to change in the future.

Table 1.7 The Proportion of Public Vs. Private Educational Institutions in Thailand (Kirtikara, 2002)

	Total	Public	Private
Whole Kingdom	50,402	47,290	3,112
Pre-Primary	45,577	43,123	2,454
Primary	33,840	32,343	1,497
Lower Secondary	10,109	9,555	554
Upper Secondary (General)	2,563	2,416	147
Upper Secondary (Vocational)	854	542	312
Below Bachelor's Degree	573	304	269
Bachelor's Degree	178	145	33
Post-Graduate Degree	51	31	20

The current challenges faced by Thailand's public affiliated universities are illustrated in Figure 1.3.

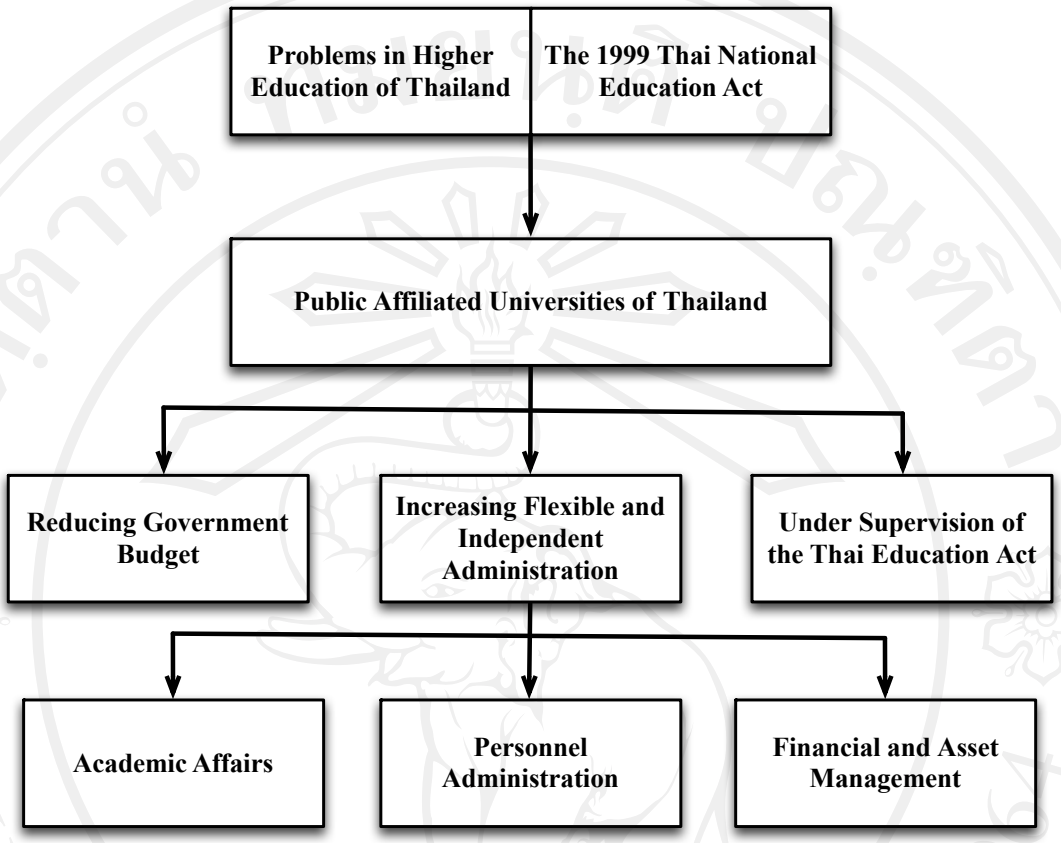

Figure 1.3 The Key Problems Facing Thailand's Public Affiliated Universities

1.1.8.8 Risks, Challenges and Opportunities for Thailand's Higher Education

Table 1.8 illustrates the current management challenges and opportunities facing the Thai higher education system (based on the seven scenarios identified by the Thai MOE).

Table 1.8 The Risks, Challenges and Opportunities for Thailand's Higher Education

The Thai MOE Educational Scenario	Context	Relationship to AEC 2015 and Potential Management Impacts on Thai higher Education
1. Demographic Change	- Aging population - Declining birth rate - Immigration/ emigration	- Shortage of labor or lack of appropriate skills (brain drain) - Mobility of students and academic staff requires new skills - International mobility puts pressure on university competitiveness and domestic/global ranking
2.Energy and the Environment	- The ASEAN Ministers on Energy Meeting (AMEM) - The ASEAN Plan of Action for Energy Cooperation (APAEC) 2004-2009 - AEC Blueprint - ASEAN Socio-Cultural Community (ASCC) Blueprint	- To enhance the integration of the regional energy infrastructures, promote energy security, create responsive policies to progressively enhance market reforms and liberalisation to become environmental sustainable - Restrictions on energy use and resource limitations - Global climate change - ASEAN commitment to energy saving - Secure and reliable supply of energy including bio-fuel

Table 1.8 The Risks, Challenges and Opportunities for Thailand's Higher Education (Continued)

The Thai MOE Educational Scenario	Context	Relationship to AEC 2015 and Potential Management Impacts on Thai higher Education
3.Future Employment	- ASEAN Charter "develop human resources through closer cooperation in education and life-long learning, and in science and technology, for the empowerment of the peoples of ASEAN and for the strengthening of the ASEAN Community" - e-ASEAN - Free flow of labor, service and trade - Economic Corridor/ Greater Mekong Sub-region (GMS)	- ASEAN countries must work closely together in order to strengthen their nations' and the region's competitiveness. - ASEAN countries must embrace technology - Information Technology becomes an instrument for public understanding and consumer protection - The dominant labor force works in international service and the industrial sector - Requirement of real sector both in public and private sector and work cross-culture - University must change to meet technology transformation in productivity and innovation in manufacturing and services to be competitive with other countries - Universities must adhere to information technology accountability and international education standards - Increased mobility of labor domestically, regionally, and internationally - Competitive education because of free trade and service in Education

Table 1.8 The Risks, Challenges and Opportunities for Thailand's Higher Education (Continued)

The Thai MOE Educational Scenario	Context	Relationship to AEC 2015 and Potential Management Impacts on Thai higher Education
4.Decentralisation of the country and development of local administrative bodies	- Education for All (EFA) - ASEAN University Network: AUN - ASEAN Student Exchange Program (ASEP) - University Mobility in Asia and the Pacific: UMAP International Secretariat	- Universities must seek cohesion and direction from local public agencies - Collaboration of local/regional higher education institutes - Inadequate planning - Lack of proper funding - University networking issues - Increased number of affiliated universities
5.Peaceful conflict and violence	- Vientiane Action Plan (VAP) "Towards shared prosperity and destiny in an integrated, peaceful and caring ASEAN Community"	- Complex socio-historical factors - Violence in Southern Thailand - To ensure secure and meaningful employment - Opportunities in ASEAN and the world's Muslim community. - Lack of harmony in community relationships

Table 1.8 The Risks, Challenges and Opportunities for Thailand's Higher Education (Continued)

The Thai MOE Educational Scenario	Context	Relationship to AEC 2015 and Potential Management Impacts on Thai higher Education
	- Narrowing the development Gap - Political instability / community relationships	
6.Post Modern/Post Industrial world	- Transnational education - Cross-border education - ASEAN's niche - Harnessing Educational Cooperation in the East Asia Summit (EAS) for regional competitiveness and community Building - Narrowing the digital divide	- Recognising that different levels of development within ASEAN require some flexibility as ASEAN moves towards a more integrated and interdependent future - Socialisation platforms need to be created within and outside of universities - Information-based society, knowledge-driven society, life-long education, and learning environment will affect university teaching and research - Stakeholder expectations - To change from public university to affiliated university - Proactive learning infrastructure - Information Technology accountability - Public expects universities to contribute to national competitive advantage

Table 1.8 The Risks, Challenges and Opportunities for Thailand's Higher Education (Continued)

The Thai MOE Educational Scenario	Context	Relationship to AEC 2015 and Potential Management Impacts on Thai higher Education
7.His Majesty the King's initiation on "Sufficiency Economy". The philosophy means to lead a balanced life, without excess	- ASEAN Internship Program - Sufficiency Economy philosophy - Accountability - Sustainability	- Challenging budget allocation, which aims for balanced and sustainable development - Good governance and Management - To achieve higher levels of economic dynamism, sustained prosperity, inclusive growth and integrated development of ASEAN
Sources: ASEAN 2008, 2009; Hjort, 2008ว OHEC, 2008, Office of United Nations Population Fund Country, 2011; MOE, 2011; Potar et al., 2000; Yamtraipat et al., 2004		

Aside from the AEC 2015, there are a variety of other challenges facing Thai higher education. Most notably one university one province, and university social responsibility.

1.1.8.9 One University One Province (OUOP)

The one university one province project is one of Thailand's strategies to efficiently and systematically bridge society by engaging higher education with society in order to provide universities with the means to promote access, and to reach out and touch, connect with, and understand local communities in the country (OHEC, 2009b). The main purpose of this project is to encourage universities to cooperate with the public and private sectors as well as with local agencies in preparing development plans and solving problems within communities through the

integration of knowledge, technology, and innovation with the aim of raising the quality of life, economy and society as a whole. In line with this project, relevant activities have included:

- The establishment of the center for knowledge management for provincial development
- The development of academic services for society
- Create the inclination for youth to become university student
- Create an educational atmosphere for university adjustment (OHEC, 2009b).

Currently, the 'one university one province' project has enhanced the role of universities to develop society, students and communities and good citizens within two years with the following purpose:

- To integrate the cooperation of both public and private sectors in responsible areas in order to develop society, economy, natural resources and the environment, technology and innovation
- To enhance the center for the knowledge management for provincial development through the mechanism of universities
- To increase the communication channels and transfer of knowledge, technology, tradition and culture and local wisdom as a mechanism of public hearing and public policy according to the needs of the Thai people (OHEC, 2009b).

1.1.8.10 University Social Responsibility (USR)

ASEAN University Network (AUN) (2010) expressed the importance of the concept of university social responsibility and sustainability (USR&S) as the concept of development has shifted its focus from being economic-oriented to become more socially oriented. The higher education sector has also faced the need to change their course of development strategy and have become active units within a society that vigorously applies the concept of social responsibility.

The concept of social responsibility is about commitments, which go beyond what organisations normally do. The concept also needs to incorporate elements of

sustainability to successfully achieve a long-term impact. Thus USR&S is the collection of ethical practices which form the foundation for social activities and services aimed at students, the staff of universities, the local community and society, keeping in line with creating social good (Riyanto and Toolsema, 2007).

According to the AUN, there are four integral parts of an effective USR&S framework, as shown in Figure 1.4.

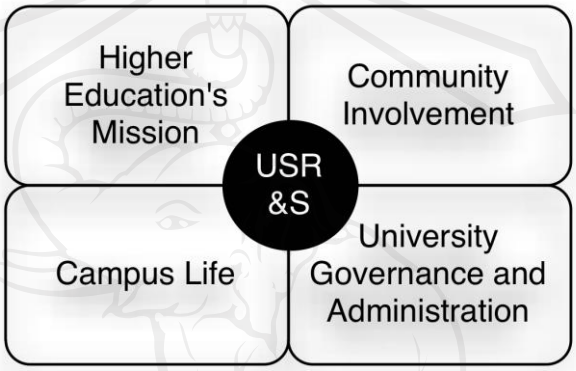

Figure 1.4 Integrated USR&S (Sources: Adapted from AUN 2010)

This chapter has so far shown the fundamental and wide-ranging shifts in higher education worldwide, with a particular focus on Thailand. Such wide-ranging changes and the plethora of challenges and opportunities require higher education to adapt and meet these challenges, and since the higher education system is fundamentally a knowledge-based industry, interested in the supply, creation and storage of knowledge, then knowledge management should be a particularly useful tool in assisting higher education institutions to respond to the global knowledge economy and fundamental challenges and opportunities facing higher education.

1.2 Problem Statement

1.2.1 Global Change in Higher Education

In recent years, higher education has been affected by the two pivotal trends of massification and globalisation (Shin and Harman, 2009). These trends have created

challenges as well as opportunities for higher education institutions worldwide. The American higher education system for example, has provided opportunities for significant social and economic mobility, enabling new generations of immigrants to pursue their goals and objectives (Rosenstone, 2004). In Europe, the European Union (EU) has become more active and assertive in its efforts to influence the behavior of higher education organisations, which are increasingly being challenged by the rapidly, developing EU innovation strategy (Vught, 2009). In Southeast Asia, higher education is developing and expanding rapidly and facing challenges from increasing student enrollments, the effective management of knowledge, economic restructuring, and financial limitations (Marginson et al. 2000).

While growth and change in the higher education sector has been globally ubiquitous, there has been a geographic variation in the type of growth and the challenges faced. Issues of finance and funding have been dominant in debates regarding the higher education system of many countries (Kogan et al. 2006). This is particularly so in Thailand, where funding and the economy have had critical impacts on the structure and organisation of the higher education system (McCarthy, 2010).

In light of such challenges and change, there is general agreement within the Southeast Asian higher education community that closer regional and global cooperation is beneficial. It is necessary to produce highly qualified graduates who can contribute to sustainable economic development and increased global competitiveness (Cheng, 2005). To facilitate productive cooperation, policy makers and practitioners must be well informed about higher education development and international trends so they can transform such information into useful policies and practices, while staying within the limitations of their national needs and environments (UNESCO, 2006).

Within Southeast Asia, the requirement for cooperation and integration within higher education has been advocated through the establishment of the ASEAN Economic Community (AEC), which is set to become a region of free trade beginning in 2015. The AEC presents a variety of challenges and opportunities for higher education, and to match the momentum of economic change and development in the region, higher education must respond appropriately.

As one of the key Southeast Asian economies, and with clear objectives to

play a key role in the AEC 2015, including further development and the genesis of an internationally competitive higher education system, Thailand's universities and higher education institutes are facing significant challenges. This thesis investigates how knowledge management can be leveraged in synergy with a governance, risk management and compliance framework to respond to the new management structures and risks faced by Thailand's higher education system.

1.2.2 Higher Education in Thailand: Responding to New Management Structures and Facing Controllable and Uncontrollable Risk

COSO (2004) defines risk as a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.

In Thailand, one of the key changes within the higher education system has been the requirement for previously public universities to become more autonomous organisations with limited government supervision. In 1997, Thailand faced an economic crisis complete with a collapse in value of the Thai Baht (Zhuang & Dowling, 2002). This in turn led to a crisis of education, resulting in the Thai government applying for financial assistance from the Asian Development Bank (ADB). One suggestion from the ADB was to let public universities manage themselves to reduce governmental spending, while also minimising bureaucracy in higher education. Bureaucracy in particular, was shown by Nitikraipot (1999) to be reducing the effectiveness and global competitiveness of Thai universities. As a potential solution to economic difficultly and bureaucracy, fourteen universities have been mandated by the Thai government to transform into autonomous (affiliated) public universities. Prior to these changes, the government of Thailand provided centralised budgets to public universities and university staff worked as civil servants. This often meant staff felt secure and safe in their jobs, and as a result there was often no motivation or encouragement for imagination or ingenuity in their work. Ultimately, this led to stagnation within the higher education sector and the quality of

education suffered (Kirtikara, 2002).

As of 2012, fourteen universities have been mandated to change into public affiliated universities in Thailand. Among them, ten have finished their evolution from public, to public affiliated university, and four are new universities, which were conceptualised from the outset as public affiliated universities. The Thai government often prefers the term ‘public autonomous universities’ when describing this new higher education management structure, but in this thesis, the term ‘public affiliated universities’ is preferred. This is due to the word ‘autonomous’ not truly reflecting the status of these newly organisied Thai universities, which despite being offered significantly more autonomy than traditional public universities, are still bound by government directives and restrictions.

The process of transforming from public to public affiliated university, results in two main challenges. Firstly, some lecturers and staff are afraid of losing their perceived permanent employment status due to new infrastructures and systems. Secondly, there is a legacy of bureaucracy, where there is a habit to blindly follow leaders rather than be creative and productive at work. Transforming to become a public affiliated university also exposes the organisation to risk. New levels of budgeting autonomy and less government intervention and support thus require effective and sustainable management.

Management tools applied to Thai universities are mainly concerned with increasing and improving quality management for stakeholders of the universities, for example the public management quality award (PMQA), Thailand quality award (TQA), RBM (results based management), and balanced scorecard (BSC), among others. The majority of these management tools are retrospective, and fail to effectively consider risk.

The main risks currently facing Thai universities are represented by key scenarios envisaged by the Thai ministry of higher education (2008b). The key risks facing institutes of higher education in Thailand are therefore captured by the Table 1.9 following.

Table 1.9 Controllable and Uncontrollable Risk in Thai Universities

Controllable Risk	Uncontrollable Risk
Energy and the environment - increasing efforts to save energy and reduce environmental impacts mean universities must take responsibility for energy and the environment which has impacts on management and represents a risk for those institutions who fail to consider environmental sustainability	Demographic change - ageing population and changes to Thailand's demographics mean risks for higher education institutes and the recruitment of students
Decentralisation of the country and development of local administrative bodies - reliance on local administrative bodies rather than central government poses a variety of risks and means universities and local authorities must appropriately manage themselves to ensure they reduce risk.	Future employment - Thailand's continually shifting economic environment has impacts on employment and therefore on the demands of higher education. Thai higher education institutes face risk if they do not adapt to the changing economy and needs of employers.
Peaceful conflict resolution and violence - conflicts in the south of Thailand and other areas is a potential risk for Thai education.	Post modern/post industrial world - changes to the global economy mean that Thailand must also adjust its education or face being left behind in terms of the 'triple helix' of university-industry-government.
His Majesty the King of Thailand's initiation on the 'sufficiency economy' - universities face risk associated with the local communities they serve and ensuring they follow the precepts of the sufficient economy	

Despite the use of these new tools, none effectively integrate organisational ethos with objectives and risk. One well known contemporary framework, which attempts to integrate organisational ethos and allow organisations to successfully meet their objectives is governance, risk management and compliance (GRC) (PricewaterhouseCoopers 2004; SAP, 2011; Suvanasarn 2010; Tarantino 2008). The advantage of GRC is that people, process and technology (PPT) are key aspects of the framework, which are leveraged in a synergistic way to address risks and challenges to create organisational sustainability. The framework of GRC is thus inextricably linked to organisational sustainability and if Thai public affiliated universities can successfully implement and maximise the potential of GRC, it will enable them to respond to risk and secure their future as higher education institutes in Thailand, and beyond (PricewaterhouseCoopers, 2004; Suvanasarn, 2011; Tarantino, 2008; Thanalerdsopit et al. 2010).

1.2.3 The AEC 2015 and Thai Higher Education

In parallel to the challenges associated with changing their management structure to public affiliated status, Thai universities must prepare for the ASEAN Economic Community (AEC) 2015. Southeast Asian higher education must prepare itself to compete with the changing global economy and other powerful economic regions (OHEC, 2009b), hence the AEC will establish ASEAN as a single market and production base to drive the region to become more dynamic and competitive (ASEAN, 2008). This will include new mechanisms and measures to strengthen the implementation of ASEAN's existing economic initiatives. The aim is to accelerate regional integration in priority sectors, facilitate movement of businesses, skilled labour and talent, and strengthen the institutional mechanisms of ASEAN (ASEAN, 2008).

For Thailand, the free flow of people and capital will produce significant challenges as well as opportunities. As the fourth largest economy amongst ASEAN member countries (ASEAN, 2009.), Thailand has access to significant economic opportunity and therefore has objectives to develop its higher education sector in order to drive economic growth and take full advantage of these opportunities (OHEC, 2008.). The potential effects of the AEC 2015 also pose major risks to the

educational sector in Thailand, particularly higher education, which, unlike the compulsory primary and secondary education sectors, is more exposed to the potential economic changes likely to arise from the AEC. A critical aspect relating to challenges presented by the AEC 2015 and the new public affiliated Thai universities is understanding and managing risk and the appropriated risk knowledge to ensure future sustainability. In this sense, knowledge management should be a central tenet when responding to higher education challenges and risks.

1.3 Risk management in Government, Private and Public Affiliated Universities

Risk of various universities was presented on Table 1.10 (Kirtikara, 2002; National Association of College and University Business Officers and the Association of Governing Boards of Universities and Colleges, 2007).

Table 1.10 Risks in Different Types of the University

Type of the University	Descriptions of the risks
Government Universities	- Less types of the university concerned about financial risk - receive governmental funding - Political and economic changes could affect them - Suffered from an inefficient management structure - Budgets for state universities are adequate for their existence and routine operations.
Private Universities	- Financial risk is a significant issue – affects their viability and sustainability
Public Affiliated Universities	- Must manage finances - danger of risks in too much autonomy versus legacy system of government funding - Should be strong in governance, because they must accomplish all the tasks in academy, finance, assets and staff management supervised by the university council. - Risk in the quality of academic performance

	- Should keep well-performed staff- risk in staff turnover

1.4 Knowledge Management to Respond to Higher Education Risks and Challenges in Thailand

Responding to the risks and requirements of both the new affiliated status of Thai universities and the forthcoming AEC 2015 requires an effective knowledge strategy in order to appropriately integrate aspects of governance, risk management and compliance.

This thesis investigates how Thai government universities can use knowledge management (KM) techniques to adapt to the consequences of the 1997 economic crisis (public autonomous status) and the forthcoming risks and challenges associated with the AEC 2015.

Research presented in this thesis creates a model for Thai public affiliated universities, which will enable relevant stakeholders to create sustainable, independent universities. The research leverages a knowledge management perspective and proposes governance, risk management and compliance (GRC) as a framework and model to facilitate sustainability. In considering the sustainability of Thai higher education institutes, there are a variety of interrelated concepts, which are considered in this thesis. Figure 1.5 shows the concepts and their relationship with GRC.

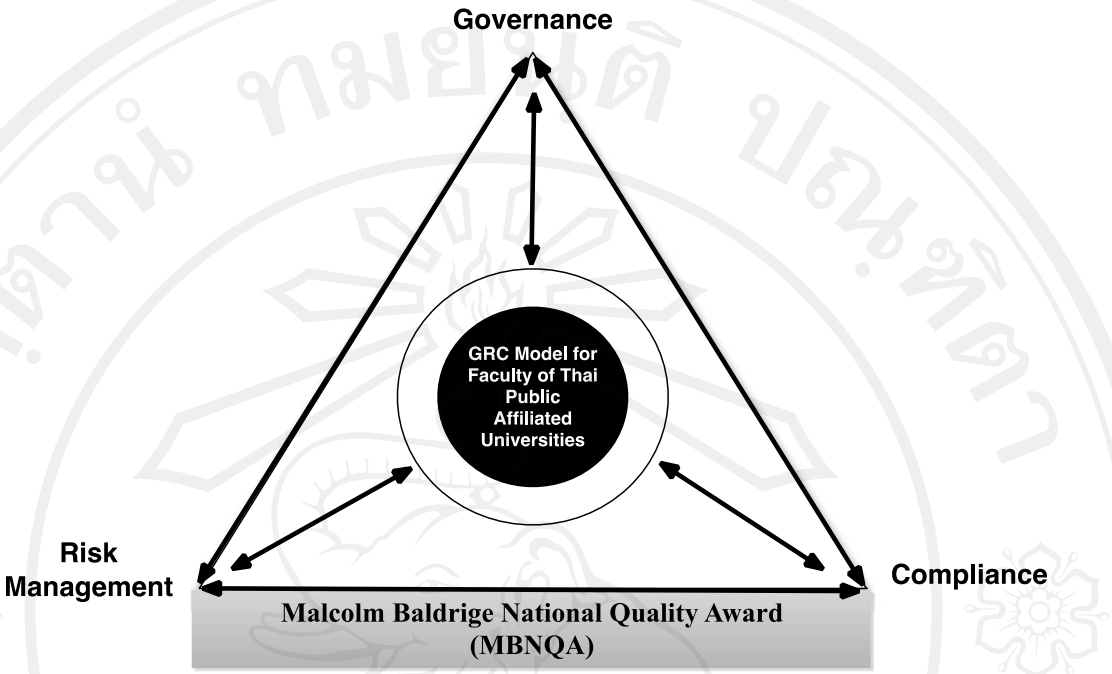

Figure 1.5 The Interrelated Factors Contributing to Risk and Sustainability and the Focus of the GRC Model Presented in this Thesis

The development of an appropriate GRC model is challenging, and this thesis focuses on how to develop a GRC framework using a Knowledge Management (KM) approach. In particular, the GRC framework is developed with regard to improving the efficiency and effectiveness of management in order to realise the full potential of the public affiliated status.

The problems in defining a suitable and consistent GRC framework have led to a variety of models being developed by management consultancies (e.g. PricewaterhouseCoopers, Deloitte Touche Tohmatsu and SAP). The emphasis placed on GRC by these models and the wide-ranging literature illustrates that despite the difficulty in defining and structuring GRC, there remains an implicit business need to apply the principles of GRC.

The need for an effective GRC model and implementation in the Thai public affiliated universities can be summarised according to four generic GRC drivers, as adapted from Schäfer et al. (2012). These are as follows:

1.4.1 Information Expansion and the Increasingly Cloud Based Storage and Retrieval of Information

Over the previous two decades, the amount of available information has grown significantly, with Gantz and Reinsel (2011) suggesting that in 2011, the digital universe contained in excess of 1.8 zettabytes (1.8 trillion gigabytes) and had grown by a factor of five in only nine years. Such information must be managed and used effectively by organisations, and existing structures for data or information management are often not adequate. In addition to this information growth, there is an increasing reliance on online storage and retrieval of such information, particularly for organisations. The increasing use of cloud based storage and retrieval has led to organisations becoming more porous, with fewer boundaries and the resulting need to ensure this information and the information environment is managed effectively.

1.4.2 Regulation and Rules

As well as an increase of information, the regulatory environment for organisations has expanded. This is the case both nationally, and internationally, with the increasingly globalised economy introducing further regulatory requirements for organisations. An effective GRC framework is required so organisations can operate in the constraints of an increasingly regulation based environment.

1.4.3 The Need for Transparency and Visibility

Coincident with the increase in regulation is the expanding requirement for transparency and visibility in organisational operations. Stakeholders, individuals, and communities are becoming increasingly interested in the way in which organisations operate in their communities (whether virtual or real) and as such, organisations must be prepared to divulge information and be honest and transparent in the way they operate. Once again, GRC can enable such transparency and visibility, and in combination with the three key parts of GRC (governance, risk, compliance), can ensure no misdemeanors occur to the detriment of the organisation.

1.4.4 Hyperextended Organisations

The level of complexity in which organisations operate has grown, as has the connectedness and networked nature of systems and the way organisations operate. This again requires an effective GRC framework to ensure that the hyperextension of organisations leads to effective opportunities as opposed to significant challenges.

These four drivers of an effective GRC capability combine to produce the contextual need for an effective GRC model. Figure 1.6 illustrates conceptually how these drivers concertedly produce the requirements of a GRC framework.

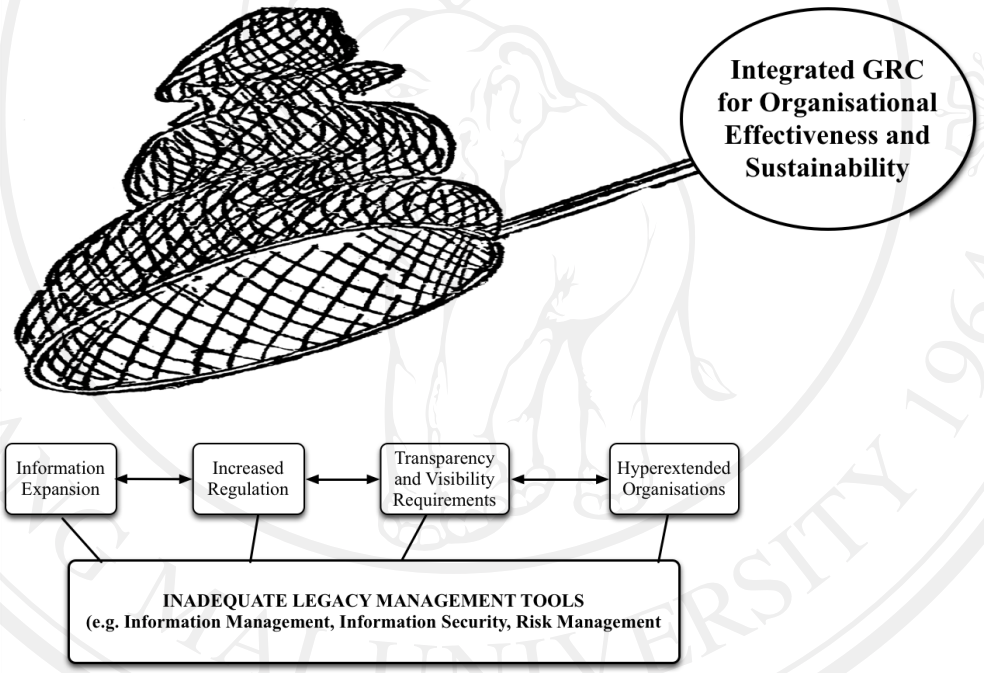

Figure 1.6 A Conceptual Diagram Illustrating how GRC Addresses the Four Driving Factors and Supersedes or Integrates Legacy Management Tools to Do So

As Figure 1.6 shows, GRC is effective at combining these four drivers to ensure they are responded to in an appropriate way. The legacy management tools currently in existence are not suited to address the current issues in organisational management and hence an effective GRC model supersedes these legacy silo tools to respond to the four GRC driving factors. While these factors have been discussed in a generic way, Table 1.11 illustrates how these drivers relate specifically to the

environment of Thai higher education, or more accurately, to the Thai public affiliated universities.

Table 1.11 The Application of Generic GRC Drivers to the Thai Public Affiliated Universities

Generic GRC Drivers	Application to the Thai Public Affiliated Universities
1. Information expansion and the increasingly cloud based storage and retrieval of information	As with all organisations, the Thai public affiliated universities are experiencing an expansion of information and pressure to manage such information. In relation to the other four GRC drivers, the increased connectedness and reliance on cloud computing means the Thai public affiliated universities must effectively manage their information if they are to succeed and become sustainable in their operations. For a university, information is a quintessential part of operations, and as such, the Thai public affiliated universities can gain considerably from an effective GRC model, which allows for a suitable management of information.
2. Regulation and Rules	The Thai public affiliated universities follow rules from the Thai government, but with increasing levels of internationalisation, must also meet additional rules and regulations. In terms of the forthcoming AEC 2015, there will be a plethora of additional regulation, which must be effectively managed if Thailand and the Thai public affiliated universities are to create a regional hub for higher education in the ASEAN region.
3. The Need for Transparency and Visibility	With increasing internationalisation comes a need for transparency and visibility in management and operations. In addition, the autonomous budgetary control given to the Thai public affiliated universities means there is increased pressure to be accountable, and transparent in their expenditure.

Table 1.11 The Application of Generic GRC Drivers to the Thai Public Affiliated Universities (Continued)

Generic GRC Drivers	Application to the Thai Public Affiliated Universities
4. Hyperextended Organisations	The Thai public affiliated universities aim to be internationally competitive organisations and are increasingly pursuing research links, student exchanges and collaboration with both public and private sector organisations in Thailand and beyond. The Thai public affiliated universities are less insular and more outward looking than in the past, and this is set to continue with increasing regionalisation and internationalisation.

1.5 The Research Case Study

The GRC model in this thesis was developed and created using expert knowledge and then applied at the College of Arts, Media and Technology (CAMT) Chiang Mai University (CMU). Chiang Mai University was the first higher education institute in the north of Thailand and in 2008, CMU became a public affiliated university, which is governed by the University Council. The vision of CMU is, *"to be a public affiliated research-oriented university, maintaining international standards of quality assurance and academic excellence"* (Chiang Mai University, 2010: 5). In 2011, the College of Arts, Media and Technology (CAMT), one of the 22 faculties in CMU, volunteered to study the development and application of a GRC model for Thai higher education, more specifically the Thai public affiliated universities.

CAMT was selected as a case study for a variety of key reasons. Firstly, CAMT is 93% self funded, which means it is a highly autonomous faculty within Chiang Mai University and can therefore provide useful results for other faculties who are moving toward higher levels of autonomy. Secondly, CAMT has already used and integrated the Malcolm Baldrige National Quality Award (MBNQA), which relates to the forthcoming 2015 Asia quality award, which will utilise the MBNQA as a foundation. CAMT as a case study therefore acts as a useful proxy for the

challenges Thai higher education will face in the future and is a useful place from which to capture the knowledge relating to GRC issues that Thai universities will encounter.

1.6 Quality Framework

1.6.1 Malcolm Baldridge National Quality Award (MBNQA)

In 1987, America established a national quality awards known as the Malcolm Baldrige National Quality Award (MBNQA) to improve quality management practices. National governments are playing an active role in promoting and encouraging organisations to embrace quality management practices because quality management is one of the keys to competitiveness (Lee and Quazi, 2001; Lee et. al 2003). According to the same standard of seven categories of MBNQA, namely; strategy planning, customer focus, measurement analysis and knowledge management, workforce focus, process management and results, both private and public sectors in many developed countries in the world have set up their own National Quality Management Award shown in Table 1.12 as follows:

Table 1.12 National Quality Award Around the World (OHEC, 2009)

Country	National Quality Award	Year Introduced
Australia	Australia Business Excellent Award (ABEA)	1988
European Union	European Quality Award (EQA)	1989
Singapore	Singapore Quality Award (SQA)	1994
Japan	Japan Quality Award (JQA)	1995

These awards from various countries borrowed ideas from the MBNQA and revised it according to their own national features to implement achieve gained success in quality management.

In Thailand, the office of public sector developement commission (OPDC) has supported Thai government agencies to apply new public management (NPM) by using

public sector management quality award (PMQA) that was agreed by Thai ministry on June 28, 2005. PMQA is based on a large part of the concepts of Malcolm Baldrige National Quality Award (MBNQA), America and Thailand quality award (TQA), which promote understanding of the requirements for performance excellence, competitiveness improvement, and sharing of learning of successful performance strategies (OPDC, 2008). Since then, the PMQA has become a ubiquitous key performance indicator for Thai public universities (Sukboonyasatit et al. 2011).

1.6.2 ASEAN Quality Assurance (ASEAN-QA)

ASEAN-QA is cooperatively conducted by the German Academic Exchange Service, the German Rectors´ Conference, and the University of Potsdam, Germany together with partners from Southeast Asia and Europe – ASEAN Quality Assurance Network (AQAN), ASEAN University Network (AUN), European Association for Quality Assurance in Higher Education (ENQA), and the Regional Centre for Higher Education and Development (SEAMEO RIHED) – and aims at developing capacity in the field of quality assurance (QA) in the ASEAN region (ASEAN-QA, 2013).

1.7 Conceptual Framework

The conceptual framework of this thesis is shown in Figure 1.3 and provides an overview of the research. The work begins by capturing expert knowledge associated with each component of GRC (governance, risk management and compliance). The research then develops a GRC model for the Thai public affiliated universities by integrating the individual G, R and C components to create a GRC model, which is designed to respond to features of the affiliated status and the challenges and opportunities presented by the AEC 2015. The GRC model is then applied using a case study approach at CAMT. Finally, the GRC portfolio is validated by experts, including the CMU risk management committee.

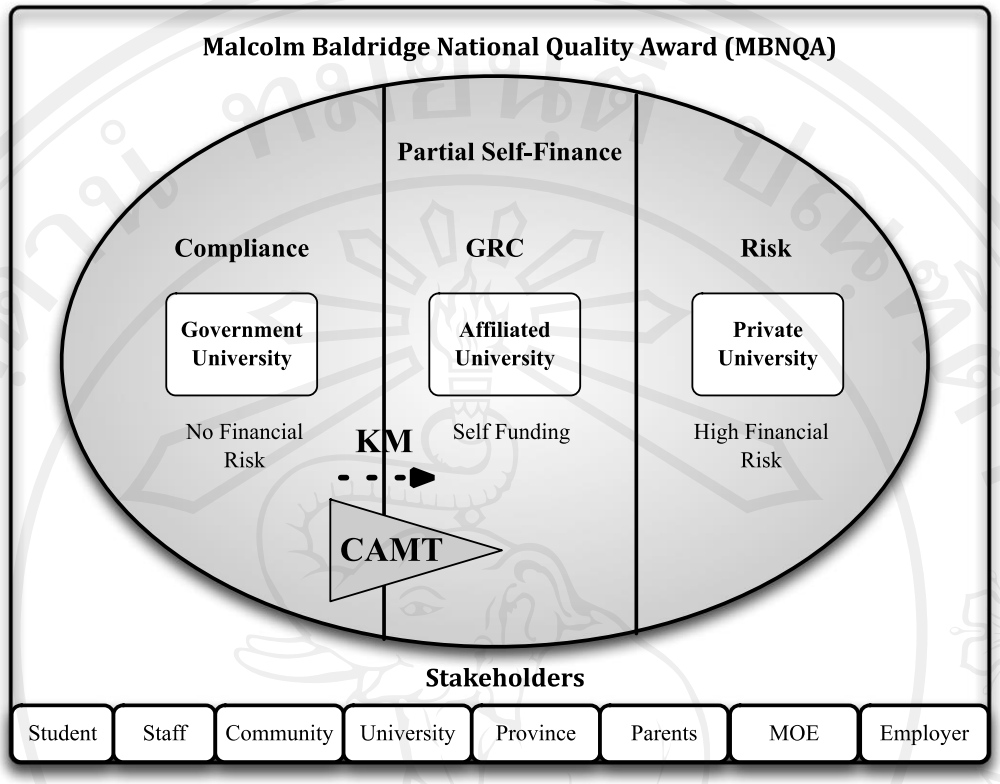

Figure 1.7 The Conceptual Framework of the Thesis

To achieve the conceptual framework in Figure 1.7 this thesis begins by defining problems and challenges in Thai higher education, focusing on public affiliated universities and the intrinsic issues associated with this organisational status. The research then aims to understand the key requirements of a GRC capability for the Thai public affiliated universities.

GRC is leveraged to promote sustainability within the Thai public affiliated universities, but GRC has been described as, *"... a large black box: a mysterious container full of improved processes...."* (Broady and Roland, 2008: 22). The components of GRC are therefore difficult to define and are also based on individual circumstances and subtle nuances associated with a particular organisation. With this in mind, knowledge management is utilised as the most suitable perspective from which to define and structure a suitable GRC framework for Thai public affiliated universities. This research utilises knowledge management to develop, structure and define a GRC framework for the public affiliated universities and applies it at CAMT, before validation.

1.8 Research Aim and Objectives

This research investigates how faculty of Thai public affiliated universities can maximise the potential of their new autonomy through the lens of knowledge management (KM) and in particular, via an integrated governance, risk management and compliance (GRC) framework and Malcolm Baldrige National Quality Award (MBNQA), which impact policy, management and practice to respond to the challenges presented by the AEC 2015. There are five main objectives from this overall research aim, namely:

- To capture tacit knowledge of management faculty in affiliated university with MBNQA to understand 'as-is' situation of organisation
- To capture tacit knowledge of management faculty in affiliated university with GRC to understand 'to-be' status
- To categorise GRC of faculty of affiliated universities on MBNQA framework
- To understand the status of the Thai public affiliated universities including challenges faced and future opportunities.
- To understand and model the GRC knowledge and relationships within the Thai public affiliated universities on MBNQA framework.
- To validate and evaluate the proposed GRC model with experts

The thesis structure is showed in Figure 1.3 and consists of seven chapters. A summary of each chapter is also presented below.

1.9 Key Research Questions

To achieve the five research objectives series of key research questions arise, which are;

- How can tacit knowledge be captured from faculty management in an affiliated university using the MBNQA to understand the 'as-is' situation of the organisation?
- How can tacit knowledge be captured from faculty management in an affiliated university using a GRC framework to understand the 'to-be' status?

- How can GRC components be categorised for the faculty of affiliated universities using the MBNQA framework?
- How can the status of the Thai public affiliated universities be understood including challenges faced and future opportunities?
- How can GRC knowledge and relationships be understood and modeled within the Thai public affiliated universities using the MBNQA framework as a basis?
- How can the proposed GRC model be validated and evaluated with experts?

There research questions are answered via the conceptual framework and methodology of the thesis.

1.10 Definitions

- Public affiliated university is a university stands by its foundation, under the government's guidance, with a limited budget.
- University governance refers to the direction and control of university and the rules and procedures for making decisions of administrators.
- University risk can be described as the measure of the likelihood of something happening that will have an effect on achieving and university's objectives.
- University compliance is laws and regulations both internal policies in university and external law from government.

1.11 Novel Contribution

The main contribution to knowledge is that GRC has not yet been effectively applied to the public affiliated universities of Thailand, and this thesis shows how such a model could improve their overall effectiveness and sustainability. While GRC is commonly discussed and applied in purely business settings, its application to higher education represents a more novel approach. A knowledge management approach also represents a contribution to knowledge through the novelty of the method used in this thesis which has used a knowledge management approach to effectively capture and structure tacit knowledge related to GRC which often leads to

GRC's infamy in being difficult to define. Therefore the methodology and approach in this thesis is novel. Lastly, while GRC is common in other parts of the world (e.g. the UK and US), GRC has not been customised and effectively applied to a Thai culture and this thesis also contributes to knowledge in its application of GRC to Thailand.

1.12 Thesis Structure

The thesis consists of five chapters, as showing in Figure 1.8.

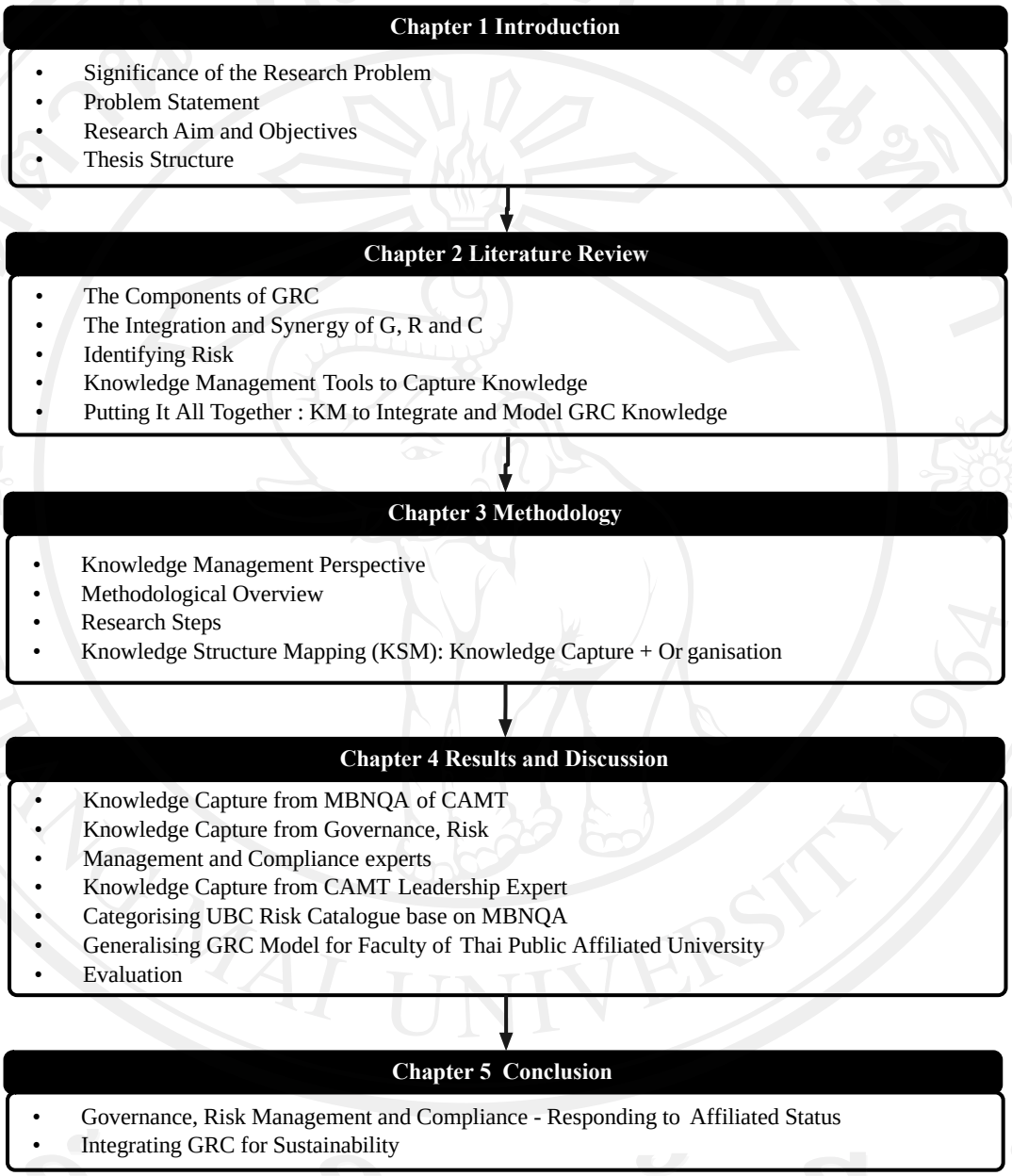

Figure 1.8 Thesis Structure

1.12.1 Chapter Two: Literature Review

This chapter has two parts: Part one provides a research overview of management in higher education around the world, specifically focusing on Thailand's perspective through the lens of Thailand's higher education policy and

focusing on the challenges and opportunities presented by the AEC 2015. Part two describes important roles and reflections of knowledge management in higher education. Knowledge management tools and techniques are also reviewed as a method to capture, develop and apply GRC techniques in higher education to show how the management of Thailand's affiliated universities might change, with a particular focus on adapting to regionalisation and internationalisation (e.g. the AEC 2015).

1.12.2 Chapter Three: Methodology

This chapter presents the methodology for this research outlining the knowledge management perspective and the tools and techniques to create the GRC model. The College of Arts, Media and Technology, Chiang Mai University acts as the case study to show how the faculty of public affiliated universities can practically apply the knowledge in this thesis to adapt the organisation to face changing situations such as the forthcoming AEC 2015. This chapter provides details of how the case study was approached.

1.12.3 Chapter Four: Results, Finding and Discussion

Chapter 4 presents results of the GRC knowledge capture from experts, including knowledge structure maps (KSMs) for each of the governance, risk and compliance components. In the second part of this chapter, the GRC model for Thai public affiliated universities is shown and explained, based on the knowledge capture processes. Also, this chapter provides results and a discussion based on an evaluation of the GRC model.

1.12.4 Chapter five: Conclusion

This chapter concludes the work and provides perspectives on limitations and future work with a focus on the future of GRC and knowledge management in higher education through the lens of the AEC 2015.