UNIVERSITY OF SOUTHAMPTON

FACULTY OF LAW, ARTS & SOCIAL SCIENCES

School of Management

Delivering Academic Services at Regional Level:
A Grounded Theory Study of Thai Academics

by

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Thesis for the degree of Doctor of Philosophy

February 2010

UNIVERSITY OF SOUTHAMPTON

ABSTRACT

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DELIVERING ACADEMIC SERVICES AT REGIONAL LEVEL:
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Investigating the work of Thai academic staff, this thesis addresses the extent to
which academic services are delivered at regional level with respect to the national
development plan to build Thailand as a knowledge economy. This is a grounded
theory research project involving three investigatory propositions namely
regional, institutional and individual profiling of academic staff. The empirical
setting of this investigation is a multi-site case study carried out in three
traditional public universities. The thesis concludes that academic services are
performed as either responding to regional needs or using resources existing
within the regional proximity. For public universities, in response to the national
expectation of their service roles, these universities have an institutional
organisation that serves systematic service performance. However, at the
operational level, despite the fact that there are many different forms of academic
service delivered, part of this work is misconceived and undermined which
results in an under-accounting of work and the underuse of designated
institutional organisation of service delivery. With the grounded theory approach
employed, these findings also function as hypotheses of a substantive theory
developed regarding the three investigatory propositions. Supporting the theory
developed, this thesis helps make a contribution to the knowledge by shedding
new light on the way in which systematic services are to be promoted.

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LIST OF ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CHE	Commission for Higher Education
CE	Creative Economy
CAQDAS	Computer-Assisted Qualitative Data Analysis or Computer-Aided Qualitative Data Analysis
CUAS	Central University Admission System
GDP	Gross Domestic Product
GMS	Greater Mekong Subregion
GPP	Gross Provincial Product
GRP	Gross Regional Product
GT	Grounded Theory
HDR	Human Resources development
HE	Higher Education
HEI	Higher Education Institution
HEIs	Higher Education Institutions
HoD	Head of Department
ICTs	Information and Communication Technologies
IS	Innovation systems
KAM	Knowledge Assessment Methodology
KEI	Knowledge Economy Index
KMUTT	King Mongkut's University of Technology Thonburi
KPIs	Key Performance Indicators
KE	Knowledge Economy
Lao PDR	Lao People's Democratic Republic
LAUs	Limited Admission Universities
LKS	Localised Knowledge Spillovers
MICT	Ministry of Information and Communication Technology
MOE	Ministry of Education
MOSTE	Ministry of Science, Technology and Environment

MRC	Mekong River Commission
MUA	Ministry of University Affairs
NEA	National Education Act
NESDB	National Economic and Social Development Board
NESDP	National Economic and Social Development Plan
NIS	National Innovation Systems
NRCT	National Research Council of Thailand
NSO	National Statistical Office
OEC	Office of the Education Council
OECD	Organization for Economic and Cooperation Development
ONEC	Office of the National Education Commission
ONESQA	Office of National Educational Standards and Quality Assessment
OPM	Office of the Prime Minister
PhD	Doctor of Philosophy
PIs	Performance Indicators
PIS	Post-Industrial Society
PRC	People's Republic of China
R&D	Research and Development
RISs	Regional Innovation Systems
RKC	Regional Knowledge Capacity
S&T	Science and Technology
SCI	Science Citation Index
SEA	Southeast Asia
SMEs	Small and Medium Enterprises
TDRI	Thailand Development Research Institute
TRF	Thailand Research Fund
TTMs	Technology Transfer Mechanisms
UILs	University-Industry Linkages
UITT	University-Industry Technology Transfer
UN	United Nations
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UK	United Kingdom
USA	United States of America
VP	Vice President

INTRODUCTION

1.1 THAILAND: TOWARDS A KNOWLEDGE ECONOMY

With the national economic problems in Thailand in 1997, came a sense of failure in higher education (HE) and frustration with the contributions made by universities; this sense of previous failure and the consequent public demands have had a crucial role in shaping today's HE reforms covering activities in public universities. Concerning this perceived failure, the contribution of HE to the capacity-building of the Thai society, in accordance with changing economic and social needs, was described by Government as follows (OEC, 2003a, p.7):

> '[Higher education] has been unable to attune itself to [provide a] timely response to these changes; nor can it serve as an effective mechanism for national capacity-building for self-dependence and strengthening the community as well as the grass roots economy, including enhancement of national competitiveness in the international arena.'

Realising the lack of sufficient knowledge in the past, the government therefore formulated national policies to promote Thailand as a knowledge economy (KE), also known as a knowledge-driven economy and a knowledge-based economy (OEC, 2003a). Accordingly, the KE concept has been adopted to shape the national development scheme in the Ninth National Economic and Social Development Plan (NESDP) (2002–2006).

With the KE concept being embedded in the plan, the aims of government for the Thai people to have sufficient knowledge and productive capability claimed to help make Thailand become competitive in the contemporary context of globalisation. In order to achieve this aim, innovative knowledge has to be promoted bearing in mind that globalisation is closely linked to an increased

dependence on technology and innovations (OEC, 2006b; ONEC, 2002). In this context, the OEC (2005) recommended that the building of the KE was to be carried out throughout the layers of Thai communities, from grassroots to the national level; strengthened communities were to be the foundation for national development as a whole.

1.2   THAI HIGHER EDUCATION AND THE KNOWLEDGE ECONOMY

Thailand started using a master plan for national economic and social development in 1963. The First NESDP was in effect for four years (1963–1966). Other subsequent plans, the Second to the Tenth, were each in effect for the period of five years. The function of these plans was to provide a key national scheme for social and economic development; other government policies developed within the effective period of each plan were to be in line with the key scheme of the plan.

Despite different periods of effectiveness, each scheme was developed in harmony with the previous one to promote a continuance within national development. During the first half of this research project (2005–2006), the Ninth plan (2002–2006) was in effect that KE, as mentioned earlier, was employed as the key national development scheme. Then, in the other half (2007–2009), the Tenth plan (2007–2011) became in use. Notwithstanding these changes, the concept of KE remains; it is regarded as one of the key mechanisms driving Thailand into a creative economy (CE), the key scheme of the Tenth plan.

With respect to the continuance within national development, Termpitayapaisit (2009b, p.25), Deputy Secretary-General of the National Economic and Social Development Board (NESDB), explains the essence of KE leading to the CE development as follows:

> 'Creative economy is a rhetoric of an economic driver developed upon the knowledge, the education, the creativity and management of intellectual property. The driver is to be developed on the basis of traditional, culture and social wisdom together with the use of modern technology and innovations.'

Despite this research being partly carried out under the Tenth plan, KE is still the central focus of government policy bearing in mind that CE is relatively new to Thailand and is, in effect, a continuance of the KE implementation. In other words, it is argued that the attainment of CE depends on the success of KE. This argument is reinforced by several studies recently carried out in the Thailand context during the effective period of the Tenth plan; these studies (*e.g.* Intarakumnerd and

Schiller, 2008; Liefner and Schiller, 2008; NESDB and World Bank, 2008) look at the roles of university, regarded as the knowledge facilitator, in innovation systems (IS) and university-industry linkages (UILs) claimed as the key activities in the building of the KE in Thailand.

To help make Thailand become a KE, activities in today's higher education institutions (HEIs) are shaped by the Second National Education Act (NEA) (2002), also known as the First National Education Act (1999) and amendments. With respect to the current NEA and the NESDP, these HEIs were expected not only to facilitate the learning environment in Thai communities, but also to be learning institutions themselves (Sangnapaboworn, 2003). That is, on the one hand, they have to demonstrate more proactive engagement with their host society following the national rhetoric of building 'a knowledge-based society as a pre-requisite for a knowledge-based economy' (OEC, 2006b, p.18). On the other hand, their organisational reform is underway. To do so, several goals were set out by the Office of the Education Council (OEC) as presented in Table 1.1:

TABLE 1.1: The Goals of Higher Education Reform

1. The goal of the reform is to enable higher education to be an effective mechanism empowering Thailand to become a knowledge-based society. Higher education will thus serve as the main mechanism for national development in various aspects, namely economic, social, political, cultural and environmental; it will also provide the driving force empowering Thailand to become a self-dependent society able to benefit from innovations and increased competitiveness in the international arena.

2. To enable higher education institutions to serve as academic sources for strengthening the grass roots economy of the community; the main aim of higher education is to enhance the knowledge of the community through production of quality graduates; the emphasis is on empowering the community to become self-dependent and capable of developing the quality of life by availing of various kinds of research work — basic, applied and policy-oriented; the research conducted should yield practical outcomes which can be utilised for development of community production, business development and public management system as well as laying the foundation for long-term development for the purpose of creating innovations based on Thai wisdom. The innovations will thus become value-added products, allowing the communities to benefit from their intellectual properties.

3. To produce graduates responding to social needs and harmonious with national development trends, particularly in the fields of science and technology, and to enhance the knowledge of the Thai people, who will be endowed with the basic qualifications of global citizenship.

4. To establish a desirable administrative and managerial system in educational institutions, enabling them to carry out their tasks with flexibility, academic freedom, quality, efficiency and effectiveness, and at the same time function with responsibility and accountability under the supervision of their respective councils, having regard to harmony with and exigency of national development.

Source: OEC (2003a, pp.9–10).

Although having been introduced as the national development aim, the concept of KE is based upon imported Western knowledge; various KE mechanisms are mainly developed in the context of developed systems. To explain further, since the later time of the Cold War, from the 1970s onwards, various KE mechanisms have been developed following an influential idea of Perter Drucker's 'knowledge economy' being driven by 'knowledge industries' and 'knowledge workers'. Accordingly, the power of innovative knowledge, rather than science and technical skills, has increasingly been emphasized (Bell, 1973; De Weert, 1999). With respect to the history, the concept has been widely adopted in developed countries, who enjoyed the prosperity of their industrial economies during the Cold War era (Salomon, 2000).

Bearing in mind the history above, the researcher agreed with Sinlarat (2005, 2007) that the use of any imported concepts in Thailand must be very carefully considered taking into account different contexts of implementation between Thailand and those developed countries.

1.3 THE THAI HIGHER EDUCATION: AN OVERVIEW

At present, all HEIs in Thailand are the responsibility of the Office of the Higher Education Commission, operated under the chairmanship of the Commission for Higher Education (CHE). These institutions are classified into three groups: public universities, community colleges and private universities. Among these types, public universities form the largest proportion, in which the majority of students are enrolled (Table 1.2).

TABLE 1.2: Higher Education Institutions in Thailand

Type of Institution	Number	Student Enrolments		
		New Enrolment	Total Enrolment	Total Graduate
1. Public Universities	78	521,612	1,652,965	274,796
1.1 Limited Admission University	72	358,410	1,006,580	228,304
1.2 Open University	2	146,415	602,582	39,372
1.3 Autonomous University	4	10,299	30,438	4,586
2. Community Colleges	12	6,488	13,365	2,534
3. Private Universities	59	80,690	256,148	55,428
Total	**149**	**602,302**	**1,909,113**	**330,224**

Source: Office of the Commission on Higher Education, Ministry of Education, 2005.

Of the 78 public universities, 72 are limited admission universities (LAUs), two use an open admission system and four are autonomous institution using a limited admission system. For those 72 LAUs, 54 are former teaching institutes,

namely 46 Rajabhat Institutes and 8 Rajamangala Institutes, having been granted their university status in 2004. Another 18 LAUs received their university status when they were established; this is the same for the two open universities and the four autonomous universities. According to the OEC (2004b), those universities having university status since their establishment are known as 'traditional' universities. In this sense, the 18 LAUs and the four autonomous universities form the group of '22 traditional LAUs'.

The former teaching institutes and traditional universities have different forms of historical development. Before the enactment of the second NEA in 2002, these two groups were the responsibility of different ministries; teaching institutes were overseen by the Ministry of Education (MOE) whereas traditional universities were the responsibility of the Ministry of University Affairs (MUA).

However, after the 2002 NEA, the MUA was merged into the MOE; the MUA no longer existed. Accordingly, all public HEIs have been unified within one system as they are now all overseen by the Office of the Higher Education Commission of the MOE (Figure 1.1).

FIGURE 1.1: The Change of HE Administration at Central Level
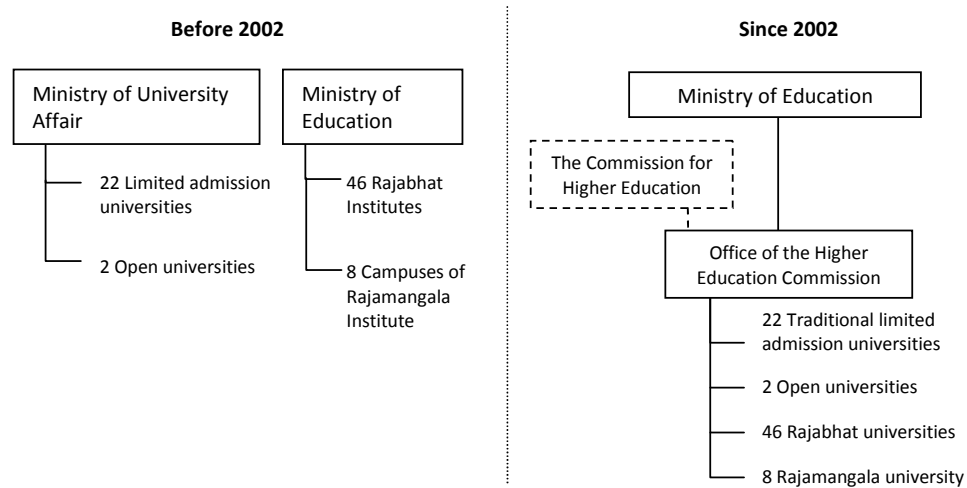
Source: Ministry of Education, 2005.

1.4 BACKGROUND TO THE RESEARCH PROBLEM

Considering the goals of HE reform, there are no clear rules for how each HEI should interpret these expectations of their performance and turn the national aim of building the KE into practical outcomes. Of the various types of universities discussed above, the researcher chose to investigate traditional LAUs because of their relatively longer historical development than other HEIs and because of their predominance within the overall system. In particular, the researcher was

interested to look at the work of academic members of staff at an operational level. Aspects of the research problem may be introduced as follows.

1.4.1 ACADEMIC SERVICES AT REGIONAL LEVEL

The KE is to be built not only at the national but also sub-national levels. In Thailand, as mentioned earlier, this idea is emphasised during the effective period of the Ninth NESDP and continued during that of the Tenth. This is reinforced by Webster (2006, p.1) as he states that '[t]he geographic dimension of development will become even more important during the Tenth National Development plan period (2007–2012) . . . [the objectives of development are] all *place-based* concepts'. Implicit in this, universities are facing an increase in expectations of their roles at each of the multiple economic levels of which they are a member (OEC, 2003b).

However, to look at university impact in terms of geographical area is argued as 'problematic'. Thanki (1999) finds that the university's area of impact could vary greatly depending on the university's character and service mission. Additionally, Charles (2003, p.13) argues that 'universities are not discrete entities . . . the university is embedded in many different types of "communities": some local, some global, some overlapping and interacting, some even barely recognizing each other'.

Nevertheless, regarding the basis of physical connection, every university is surrounded by its region, which is seen by Van der Sijde and Schutte (2000, p.7) as 'the direct environment' of the university. With respect to this reality, the researcher chose to investigate locational factors of the university's surrounding region and their influences on the delivery of academic services.

1.4.2 TRADITIONAL UNIVERSITIES

Despite all public universities being operated under a unified national policy and regulations, in terms of the university rank and status, traditional LAUs are recognized as being more prestigious than those former teaching institutes and open universities (Sangnapaboworn, 2003). With their historical tradition, these universities attract the best group of high school graduates (OEC, 2004c). Additionally, they usually receive relatively more annual state funding than other groups of university (CHE, 2005), as shown in Table 1.3:

TABLE 1.3: Higher Educational Budget, Fiscal Year 2005

Budget Allocation	% of total	HE Budget (Billions of Baht)
Office of the Commission on Higher Education	**11.03**	**4.99**
22 Traditional limited admission universities	**68.08**	**30.80**
18 Civil servant universities	63.88	28.90
4 Autonomous universities	1.90	4.20
Other limited admission universities	**17.79**	**8.05**
46 Rajabhat universities	9.92	4.49
8 Rajamangala universities	7.87	3.56
2 Open universities	**3.09**	**1.40**
Total	**100.00**	**45.24**

Source: Commission of Higher Education (CHE, 2005).

With more resources, these universities are seen as having an advantage over the others (OEC, 2003b, 2005). However, their resources also come at a price; they are blamed more for being unable to produce and deliver suitable knowledge in order to meet the social and economic needs of the country.

As asserted by several previous studies (*e.g.* OEC, 2004a; Sangnapaboworn, 2003; Sinlarat, 2005), the lack of research productivity and inadequate university engagement with outside society were found as the key reasons for economic failure and the inability to compete effectively in the global economy. For these reasons, a reconsideration of their roles has been raised (OEC, 2005; ONEC, 2002). Sharing the same concern, the researcher chose to examine academic work in this type of university.

1.4.3 INDIVIDUAL ACADEMICS

Academic members play an essential role in the academic operation, academic services included, of their universities. Notwithstanding this reality, there is very little literature, even those of developed systems, regarding the implications of the knowledge-based rhetoric at operational level and concerning the way in which this is made sense of by the university academics (Gunasekara, 2006b); expectations of the academic involvement are often made from the management viewpoint but very rarely have previous studies looked at the involvement from the perspective of academic staff. The researcher therefore took a distinctive approach by concentrating on these staff themselves.

In particular, bearing in mind the university's region chosen as the scope of investigation and the traditional LAUs chosen as the type of university to be investigated, the primary objective was to examine the perceptions and

experiences of academic members in these universities demonstrating their regional roles.

1.5   RESEARCH QUESTION AND PROBLEM STATEMENT

Given the aspects of the problem outlined above, a research question was developed as **'how are academic services at regional level delivered by Thai academics?'**

To clarify, this inquiry is made into **what** and **how** questions; the emphasis of this thesis is not on **why** and **who**. In the context of Thailand, this is due to the adoption of the KE concept in the current national development plan being already regarded as **why** academic work is to be examined. Then, bearing in mind the missing part of existing literature, individual academics are chosen as the **who** to be investigated. As a result, by choosing to look at academic work, the researcher intended to examine **how** the work was performed in order to help make a reality of the KE at regional level in the Thailand context, **what** is involved in the work and what factors influence the outcomes. These rationales are illustrated in Figure 1.2:

FIGURE 1.2: Illustration of Problem Statement
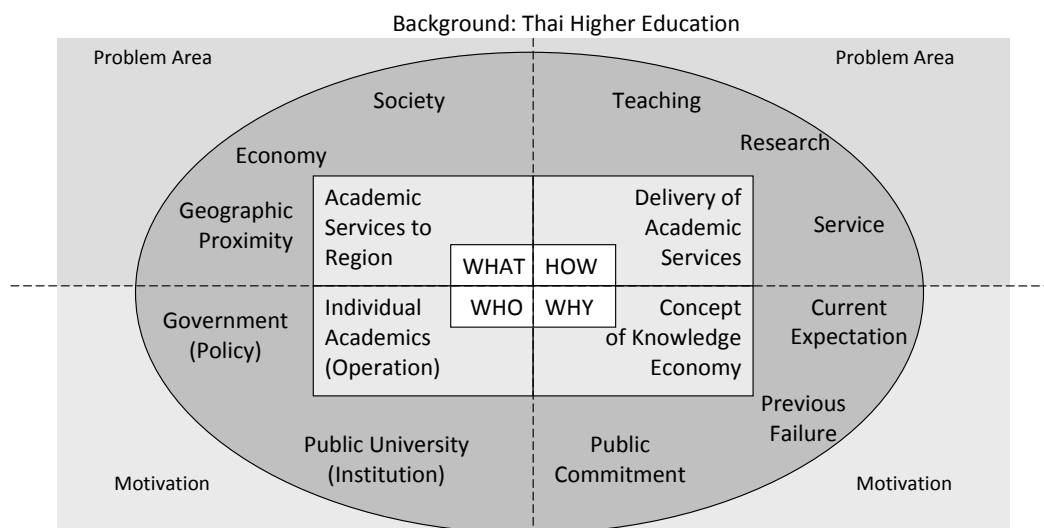
Source: developed by the author.

Given the above depiction outlining the *problem statement*, however, it must also be emphasised that answers to be obtained regarding the **what** and **how** questions would not be an ultimate answer to the *research question*; the answers would only form an analytical foundation for the researcher examining the delivery of academic services at regional level. To explain further, bearing in mind the

motivations for this research, it was decided that academic services would be examined with respect to demands on academic staff of traditional universities systematically to deliver their services to facilitate the building of the KE in Thailand. In this sense, the ultimate answer to the research question requires the examination of **systematic delivery** of **regional services** performed by **academic members of staff** in **traditional universities** for which they work. Moreover, to answer the **how** question, it requires not only description and understanding but also analysis and new theoretical propositions.

1.6 SIGNIFICANCE OF THE RESEARCH

Prior to this study and throughout the period of the investigation (October 2005–February 2010), very few studies have been found as closely relevant to the identified areas of problem and most of these related to developed countries. Nevertheless, one of these studies, conducted by Schiller (2006b), is about university responses to regional needs in Thailand. By making a discussion on his findings, Schiller outlines several concerns about academic involvement that need to be dealt with in order that university-region engagement is enhanced. These concerns include academic capability, the culture of systematic service delivery and sufficient support from the policy-making level to help strengthen existing informal relationships between university academics and regional knowledge stakeholders.

Consistent with Schiller's (2006b) study, despite not specifically looking at regional level, other studies (*e.g.* NESDB and World Bank, 2008; Termpitayapaisit, 2006) point out that the building of the KE in Thailand needs an improvement in academic capabilities and the promotion of formal, or systematic, service. However, none of these studies yet provide a vigorous recommendation based on empirical evidence of desired systems; in particular, none address the essential mechanism for delivering such service, namely the academic staff themselves.

Seeking to make an in-depth investigation, the research inquiry was therefore made into the operational perspective. Having said that, the researcher also intended to examine linkages between the operational perspective and the management of HEIs already in place in the literature and government documents. By doing so, this study could eventually help throw some light on the way in which formal and systematic services are to be promoted.

1.7 STRUCTURE OF THE THESIS

TABLE 1.4: Structure of the Thesis

Chapter	Contents
1. Introduction	Background; areas of problem; research question.
2. Literature Review	Local and focal knowledge about the inquiry made.
3. Research Methodology	Case study design & grounded theory.
4. Regional Profiling	The first part of findings series.
5. Institutional Profiling	The second part of findings series.
6. Individual Profiling	The third part of findings series.
7. Recommendations	Recommendations for systematic delivery of regional services.
8. Conclusions	Concluding part of the thesis.

Source: developed by the author.

As seen in Table 1.4 above, this thesis is divided into eight chapters. This chapter outlined backgrounds and motivations underpinning the problem areas and the development of the research question. Then, presenting the preliminary review of literature, the second chapter provides local knowledge about traditional LAUs selected as the type of HEIs in which the investigation took place. Additionally, in order to gain essential knowledge about the enquiry made into academic experiences, the chapter also reviews and discusses the ideas of the KE in relation to academic services. After that, the third chapter deals with philosophical discussions underpinning the methodological designs resulting in the employment of a case study setting and a grounded theory approach.

Then, a series of research findings is presented and divided into three chapters. The fourth chapter presents the first part of the series; it discusses various perceptions towards university regionalisation alongside the significance of the region to academic work. After that, the fifth chapter discusses institutional structures and characteristics in order to examine influences of the institutional profiles on academic members delivering their services. As the final part, the sixth chapter examines the delivery of services by individual staff with different professional profiles.

After that, based on the above findings, the seventh chapter provides recommendations on how systematic services could be promoted. Finally, the eighth chapter concludes the thesis together with theoretical implications, limitations of the investigation, and suggestions for future studies.

LITERATURE REVIEW

2.0   INTRODUCTION

Ridley (2008) points out that the review of literature reflects a researcher's understanding of the topic area; the presentation of it reflects the individual perspective of the researcher making a scholarly discussion on theories and their applications and the implications of previous studies relevant to the identified research inquiry. Hart (1998, p.15) defines the nature of the literature review in a PhD thesis as follows:

> 'Analytical synthesis, covering all known literature on the problem, including that in other languages. Higher level of conceptual lining within and across theories. Summative and formative evaluation of previous work on the problem. Depth and breath of discussion on relevant philosophical traditions and ways in which they relate to the problem.'

Hart (1998) explains that researchers conceptually link the known studies previously conducted by other scholars in the area to develop an idea about the optimum strategy that could deal with their own problems. Additionally, Murray (2002, p.108) suggests that the researcher reviewing the literature with a purpose in two senses; one is to 'learn' about it and the other is to critically clarify its 'role in the thesis argument'.

According to Glaser (1992), the literature review is often undertaken in parallel with other steps of the research. Similarly, for thesis writing in particular, Anderson and Poole (2001) state that the activity is to be done throughout the duration of the thesis. To discuss the known literature with respect to her own investigation, the researcher reviewed the literature throughout the whole research process using two literature types, namely technical and non-technical

(Strauss and Corbin, 1998b), also known as professional and non-professional (Glaser, 1992) (Figure 2.1).

FIGURE 2.1: Literature Review

= Literature review and discussion
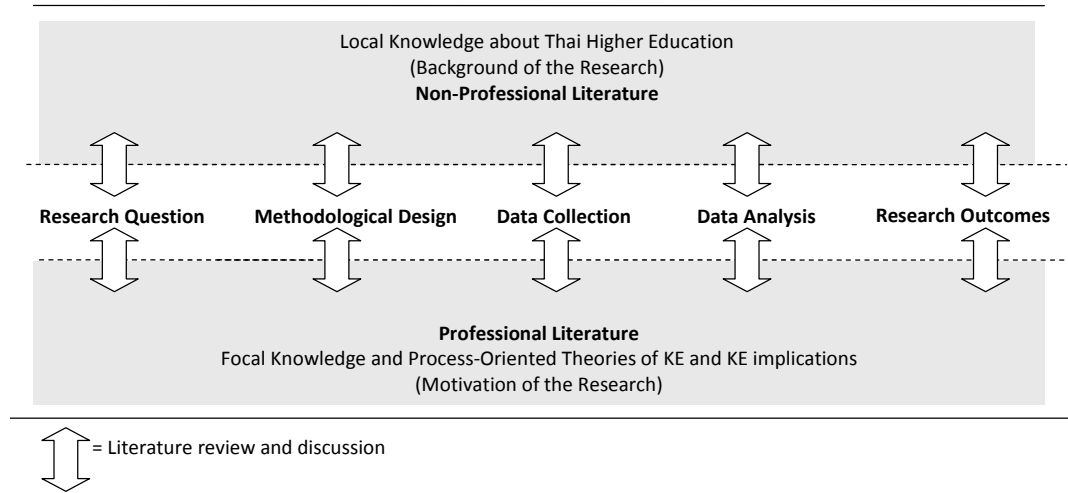
Source: developed by the author.

Non-professional literature comprises a range of descriptive information about the area of investigation. The review of literature of this type allowed the researcher to gain local knowledge about Thailand, Thai HE and Thai public universities, regarded as the context of the research problem. Non-professional literature used included several types of institutional documents of government authorities, whose responsibilities were related to activities in public universities.

These authorities are the Ministry of Education (MOE), the Office of the Prime Minister (OPM), the National Economic and Social Development Board (NESDB), the National Research Council of Thailand (NRCT), the National Statistical Office (NSO), the Thailand Development Research Institute (TDRI) and the Thailand Research Fund (TRF). The documents reviewed included annual reports, financial reports and technical reports officially provided by these authorities[1]. The access to these documents was via the official websites of the institutions and their on-line libraries providing institutional publications open to the public.

Professional literature, on the other hand, concerns previous studies relevant to the concept of KE and its applications in HE research. This body of reviewed literature mainly consisted of research papers and reports of research projects carried out in diverse contexts, in both developed and developing HE systems. In order to gain a central idea about KE and the way in which it helps to shape activities in universities, the researcher reviewed the professional literature to

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[1]These documents are listed in Appendix A.

study in breadth and depth theoretical perspectives underpinning the conduct and outcomes of the project.

By reviewing the professional literature, the researcher gradually gained 'syntagmatic' or 'process-oriented' theories, or 'the detailed results' of those various studies (Goulding, 2002, p.20). Discussions of these theories were made focusing on the use of the KE concept throughout the research processes, rather than on specific variables relevant to the context and units of analysis of each study. Simultaneously, the researcher also conceptualised philosophical discussions made by those scholars carrying out the studies (Hart, 1998).

A preliminary review of literature therefore serves two purposes: one is to gain 'local' knowledge about traditional public universities in the Thai HE system, and the other is to gain 'focal' knowledge involving with the key ideas of academic activities of relevance to the research inquiry (Figure 2.2).

FIGURE 2.2: Outline of Preliminary Review of Literature
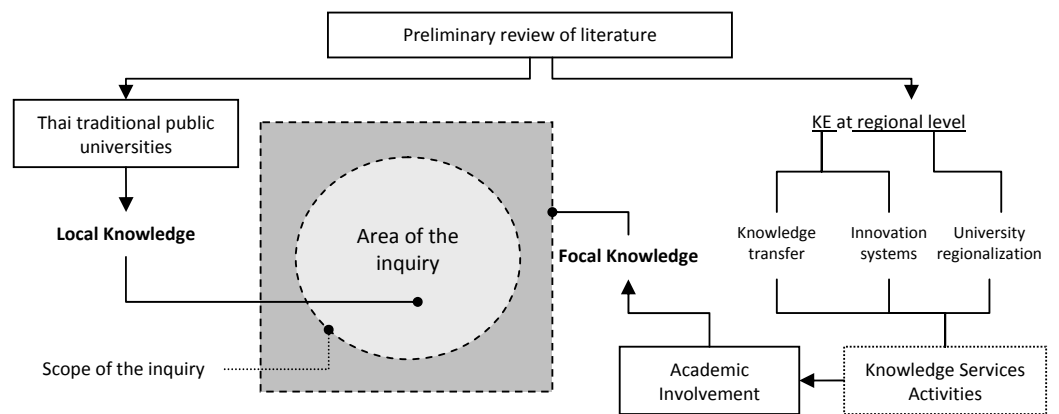
Note: KE = Knowledge Economy
Source: developed by the author.

Given the above outline, this chapter critically engages with both professional and non-professional literature (Murray, 2002). It is divided into six sections. The first section outlines historically some of the philosophies of academic services in developed systems, where the idea of KE comes from, in comparison to that of Thai HE. By doing so, the section helps to emphasize the researcher's proposition to pursue the study concerning the implementation of the imported KE concept within the specific context of Thailand. The second section clarifies the rationale underpinning the researcher's choice to examine academic services in traditional universities. The third section discusses the regionalisation of universities bearing in mind that the research inquiry is made into academic services at regional level. The fourth section deals with roles of the university in various existing approaches

to the knowledge region. The fifth section discusses various aspects of academic staff fulfilling their service function, concerning that these staff work for the university. Finally, the sixth section identifies investigative propositions.

2.1   ACADEMIC SERVICES AND THE ECONOMY

> 'Universities have always occupied a space that is socially created and supported and so have never had the complete autonomy that idealised versions of reality suppose. Such autonomy as they do have is, broadly speaking, socially sanctioned, or at least tolerated, always provisional and subject to revision in line with social and economic change.' (Harloe and Perry, 2004, p.214)

2.1.1   THE HISTORY OF THE DEVELOPED UNIVERSITY

Trying to understand the meaning of 'academic service', the researcher was led by existing literature back to the later Middle Ages (c.1150–1500), which is recorded as the first era of university development (Table 2.1). From this period onwards, Scott (2006) points out that academic services have always been associated with the concept of university institutional mission and its redefinitions throughout time. Consistent with this, as quoted above, Harloe and Perry (2004, p.213) find that the university institution has remained quite stable, performing its two key roles of 'the pursuit of knowledge' and 'the provision of education'. Scott (2006) divides the development of the Western university since its medieval roots into six eras by its mission (Table 2.1).

TABLE 2.1: The University Historical Development

University era	Period	The University Mission	Academic Service
Medieval university	c.1150–c.1500	Emphasis on teaching	The service is interwoven with teaching function. Scholars serve societal needs with liberal arts and knowledge produced from interdisciplinary research.
Early modern university	c.1500–c.1800	Dawn of nationalisation	The service primarily concerns the needs of the nation-state.
Formative U.S. college	c.1800–c.1900	Growth of democratisation	The focus on service shifts to individual needs.
German (Humboldtian) university	c.1800–early 20th-century	Dominance of research	Due to the emphasis on academic freedom allowing academics to carry out the research 'wherever it leads', service is not a vital part of academic work.
Modern American university	Late c.1800–after the World War II	Formalisation of public service	Debates on formal definition of academic service to public.
Postmodern university	1970s–[underway]	Internationalisation as a vital mission	Utilisation of knowledge power in the globalisation and localisation of economic activities.

Source: developed by the author after Scott (2006, pp.6–33) with some material from Duderstadt (2000).

Concerning university history, it is recognized that the periodic changes of social context have led to timely changes in university missions and the way the university serves society. In its early time, the Medieval university mainly served European society with the provision of HE in the various professions needed back then, including priests, administrators, lawyers, physicians and clerks for business (Scott, 2006).

Then, the university entered its early modern stage, from the 16th to 19th centuries, with the primary mission to serve the nationalisation of society. After that, alongside the foundation of the United States, a formative U.S. college was developed with the mission to promote the growth of democratisation (Boyer, 1996). Within the same period of time, the idea of academic freedom, defined with the rise of 'the research-oriented Humboldtian university', was emerging in early 19th century Germany to allow academics to enjoy the independence of scholarly

research (Altbach, 2001, p.206). As Altbach (2001) and Scott (2006) remark, this idea also migrated to shape the university teaching-learning and research mission worldwide. Concerning the idea, with the academic freedom, academe is to be permitted by the state to pursuit and transmit knowledge with a great intellectual freedom (Altbach, 2001).

Entering the modern university era (late c.1800–present), the academic freedom was found to lead to the high cost of academic research, particularly those 'blue sky', or basic, research (Duderstadt, 2000; Kezar, 2005). Bearing in mind this high cost, there was an increased concern about the benefits of high-cost discoveries. Accordingly, in order to make use of the academic knowledge, the idea of public service formalisation began; government-university-industry relationships were formally developed throughout this stage of university history (Duderstadt, 2000; Kezar and Eckel, 2000).

During this time, the university was expected to contribute to the industrialisation of the economy, regarded as the key driver of power in modern economies. Countries claiming to have succeeded in gaining power, such as the United States, Western European countries, Australia and Japan, are recognized as industrialised or developed countries (Etzkowitz *et al.*, 2000). Compared with developing countries such as Thailand, these countries are sometime seen as 'forerunners' countries (Bell, 2002).

Then, after World War II, society entered the Cold War era, in which modern society developed its power using its capabilities in the science and technology (S&T) (Scott, 2006). Considering the change in university purposes, Watson (2007, p.1) addresses various pressures on modern universities in accordance with 'an international convergence of interest on issues about the purposes of universities', as presented in Table 2.2.

TABLE 2.2: Pressures on Modern Universities

- Conservative and radical;
- Critical and supportive;
- Autonomous and accountable;
- Private and public;
- Excellent and equal;
- Entrepreneurial and caring;
- Certain and provisional;
- Traditional and innovative;
- Ceremonial and iconoclastic;
- Local and international.

Source: Watson (2007, p.1).

2.1.2   THE COMING OF KE

After being through the Cold War for decades, modern society is now argued as being in the great transformation of modernity to post-modernity (Bilton *et al.*, 2002). According to this view, the role of knowledge is anticipated to change in accordance with the changed socio-economic context. During this so-called great transformation, there are emerging debates concerning not only the changing characteristics of knowledge (scientific reasoning vs. human sense) but also the production of knowledge and the service of it (*i.e.* linear vs. non-linear, disciplinary vs. transdisciplinary, context-free vs. context-oriented) (see also Drucker, 1969; Gibbons *et al.*, 1994). Bell (1973) regards this as the transition from industrial to post-industrial society (PIS).

Often credited for his influential idea of the economy after World War II, Drucker (1969, pp.264–265) asserts that 'increasingly knowledge is the key factor in a country's international economic strength ... "Knowledge" rather than "science" has become the foundation of the modern economy'; he refers to the economy being driven by 'knowledge industries' and 'knowledge workers' as the 'knowledge economy'. In this sense, the power of knowledge is essential for the strength of economic power.

Consistent with Drucker's idea, Bell (1973) anticipates that the trend of PIS economy is closely tied to the power of innovation and knowledge, rather than to technical skill only. In this regard, Bell (1973) also expects that the university would become a key actor concerning that it is to be the source of theoretical scientific knowledge used for the creation of intellectual innovations.

Concerning the changing characteristic of powerful knowledge, De Weert (1999) discusses debates on HE knowledge provision in the knowledge society based on influencing ideas of Bell's power of knowledge and Drucker's knowledge worker. By so doing, De Weert (1999) argues that scientific reasoning is no longer the key; rather, the key is found to be fruitful combinations between a less specific scientific aggregation and a more context-oriented application in the real world society, full of human common sense and values.

2.1.3   THE THAI UNIVERSITY

In comparison with the developed university, the Thai university has a significantly shorter history; it started in 1916 when the first university,

Chulalongkorn University, was established. Since then, as outlined by Sinlarat (2002, 2004), the university has been through four phases of reforms: (1) the provision of education for specific professions (1943–1958), (2) the expansion of HE opportunity (1959–1972), (3) the emphasis on S&T (1973–1999), and (4) the implementation of the knowledge-based society (1999–present). Table 2.3 presents the history and changes in the university mission and academic service:

TABLE 2.3: Thai University Historical Development

History	Period	University Mission	Academic Service
Early Thai university	1916–1942	To train leaders and civil servants.	Interweaving service into teaching activities.
Reform for professionals	1943–1958	To serve civic needs.	Indirect service to public.
Reform for liberalism	1959–1972	To enhance individual's access to liberal arts education.	Responding to individual professional needs.
Reform for massification	1972–1999	To expand HE opportunity throughout the country.	Promoting the use of Western knowledge for economic activities of the community.
Reform for new management	1999– [underway]	To provide responsive knowledge to the Thai economy using the academic freedom and efficiency-oriented university operation.	Promoting knowledge service using the KE concept.

Source: after Sinlarat (2002, 2004).

Considering the mission and characteristics of the Thai university, Sinlarat (2004, 2007) recognizes that the university started to import HE ideas from the American system since its second reform, which was carried out after World War II. Since then, the university has been primarily encouraged to develop a broad objective of academic provision with comprehensive academic curricula to serve knowledge needs in a wider extent in order that modern society is promoted in Thailand (Sangnapaboworn, 2003).

The knowledge importation continued through the third reform, in which Thai HE has an objective to help shift Thailand to an industrial economy, where scientific and technological knowledge is a key driver (NESDB and World Bank, 2008; Schiller, 2006b). The university became familiar with the approach to national innovation systems (NIS) with S&T capabilities playing a vital role since this phase onwards until the present time (Intarakumnerd *et al.*, 2002). Together with recent reforms, the third and fourth, the Thai university became aware that research and

academic service needed to be formalised. This is due, as Schiller (2006a) points out, to the two roles being vital for the university to facilitate the NIS.

As a result, clearly, the Thai university wants to be like the modern American university, themselves facing ongoing debates about the service role formalisation in the modern society currently being transformed to post-modernity. Based on the above comparative history, this following section discusses the KE in relation to academic services in Thailand.

2.1.4 KE AND THE THAI UNIVERSITY

The modern American university pattern is claimed to lead the United States to its power and economic success (Sangnapaboworn, 2003). However, to import the pattern into Thailand is seen by Sinlarat (2007) as the origin of HE dependence relying on the knowledge importation, which is obviously not the HE character helping the United States to its economic leadership in the globalisation. In other words, Thailand has been depending on other, namely developed countries, and importing knowledge and technological innovations at a high price. Salomon (2000, p.247) agrees that industrialised, or developed, countries 'do not share the same impediments and stand to gain exponentially from new technologies' over developing countries. As Salomon (2000) points out, to follow the developed countries can cost more in those developing ones concerning the costs of training, retraining, languages, accommodating a skilled workforce.

Furthermore, the attempt of Thailand to become S&T intensive is comparable with the mission of the modern American university prior to the 1970s, when technical skill was seen as the key to economic power. In the light of this pressure, it can be argued that Thailand is trying to be like the American Modern University, which has been adopted in developed systems since later the 19th century, while simultaneously attempting to implement the new idea of KE.

However, it must be borne in mind that the KE is regarded as a tool of the transformation from modernity (industrialisation) to post-modernity (intellectual living in the knowledge economy) (Bell, 1973; Bilton *et al.*, 2002). Implicit in this, KE implementation in Thailand may have now come to a difficult stage at the same time as the recent HE reform.

By considering the historical development of the Thai university, it is assumed that Thai universities have been acting as 'modern-to-be universities' throughout the past reforms. However, Thailand was barely involved in the Cold War before

swiftly heading towards the KE; it never fully enjoying the prosperity of industrialisation before making a shift to share the post-industrial idea that was underway (see also Figure 2.3).

FIGURE 2.3: Universities and Academic Services
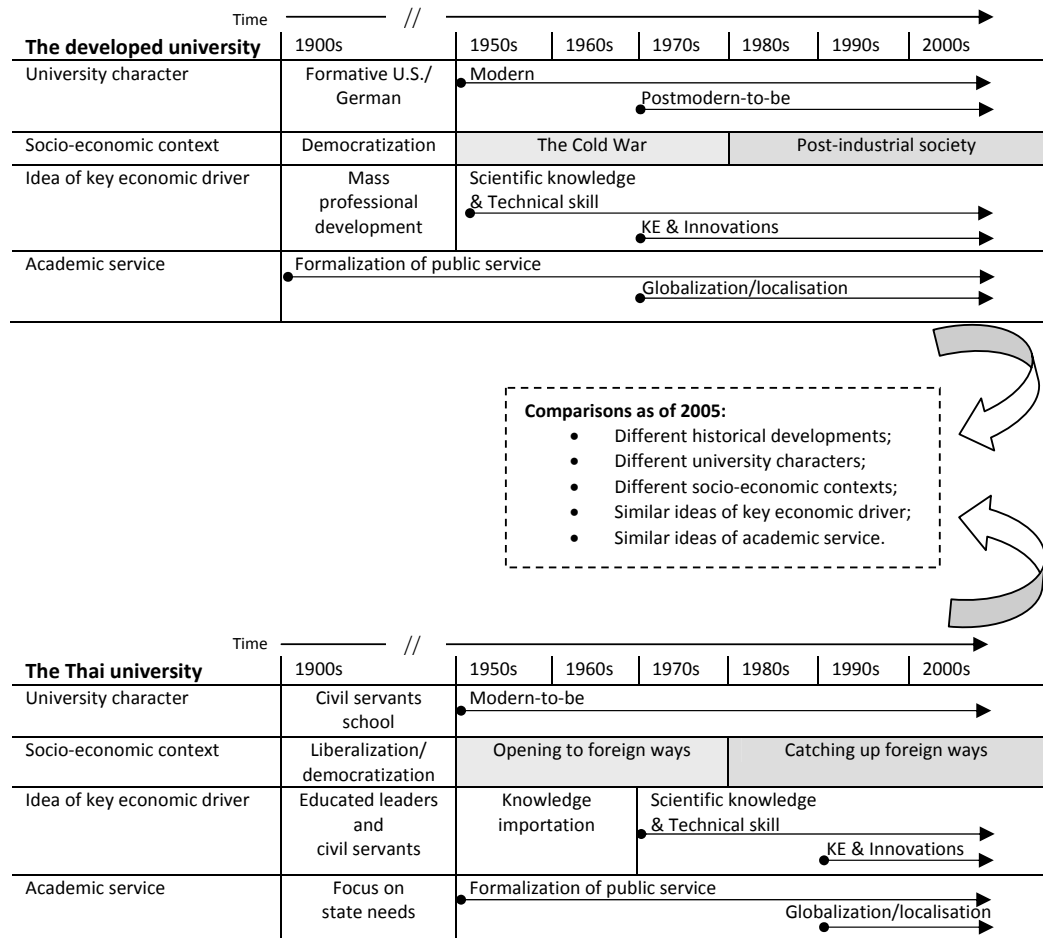
Source: developed by the author based on Bell (1973), Harloe and Perry (2004), the ONEC (2002), Scott (2006) and Sinlarat (2002).

Arguably, the Thai university of today therefore does not actually have what it takes to walk on this transformation path; to shape service activities in today's Thai universities using the KE outline can therefore be problematic. This assumption is supported by Termpitayapaisit's study (2006) which indicates that Thailand lacks essential KE enabling factors, namely S&T infrastructures, high quality academic researchers and systematic UILs. By considering the quality of academic staff in particular, various previous studies (*e.g.* Intarakumnerd *et al.*, 2002; NESDB and World Bank, 2008; Schiller, 2006a) also reveal additional problems regarding the quality of academic staff other than their research capability; they point out that the poor self-adjustment of Thai universities and of their staff is the key barrier for the innovation system in this country.

Notwithstanding several difficulties being revealed, the intention to become a knowledge economy has been underlining national development plans for more than a decade and will continue. This is evidenced by government policies (see, for instance, OEC, 2003a, 2006b; ONEC, 2002; Termpitayapaisit, 2009a) and reinforced by several educational and economic scholars (*e.g.* Chulasai, 2003; Termpitayapaisit, 2006; Yokakul and Zawdie, 2009) stating that Thailand is unavoidably pressured to move on to the KE, which is the current trend of economic development in this globalisation era. Also, as noted in the previous chapter, the Tenth NESDP (2007–2011) is already in effect with this intention remaining. The key concern here in this research is therefore not to dispute the plans; rather, the researcher intended to examine **how** they were made to work in Thai universities and **what** academic activities were put into practice.

2.1.5 IMPLEMENTATION OF THE KE

The benefits of the KE are often tied to economic impacts, in which the measurement of outcomes narrowly concern economic indicators (OECD, 2007; Thanki, 1999). This is consistent with the recent use of the concept in Thailand; economic impacts are stated as the primary concern of HE reform whereby the building of a knowledge society is regarded as the strategy to achieve this goal.

As seen in the history, the initial focus of the KE is scientific and S&T intensive knowledge. Accordingly, among the diverse disciplines of knowledge provided in universities, technology transfer is the subject presented in the main body of KE literature, with the innovation system of scientific and natural sciences forming the largest proportion (Drejer and Jørgensen, 2005). Implicit in this S&T focus, social scientific knowledge is sometimes left aside in the discussion on innovation systems (OECD, 2007).

In Thailand, similar to the origin of KE, the concept of KE appears to favour technological and scientific innovations. Despite seemingly discriminating between the importance of scientific and social innovations, NESDB and World Bank (2008) point out the necessity of doing so, considering the imbalance of academic personnel as well as the production of graduates of the two sciences. This is evidenced by the ratio of science to social sciences students being approximately 30:70 in 2004 and 2005 (NSTDA, 2006). This is claimed as the reason underpinning the current HE priority aiming at an increase in the quantity and quality of human capital with technological and scientific knowledge (NESDB and World Bank, 2008; OEC, 2005).

However, various studies recently carried out in developed systems tell otherwise. Alongside studies emphasizing S&T as the central focus of innovation, others consider the notion as covering a wider range of areas of knowledge. Providing an extended view towards the KE, Audretsch and Lehmann (2005), Boucher *et al.* (2003) and Harloe and Perry (2004) regard social sciences and humanities as no less important.

Furthermore, in terms of KE benefits, Thanki (1999) asserts that expected outcomes are to be wider than economic impacts. This is reinforced by Etzkowitz *et al.* (2000, p.326), whose comparative study is about the role of universities in systems across the world[2], as they discover that '[t]here is a shift underway from the economics of the production function to the socio-economic processes of the contemporary innovation system'.

It is suggested that developed HE systems have evidently expanded their perspectives to cover the essence of knowledge other than S&T. These perspectives emerge in accordance with the change in their socio-economic circumstances, moving away from the period after the Cold War, when technological sciences played a vital role in its prosecution (Harloe and Perry, 2004).

The question here is therefore 'How about Thailand?'; has it started to realise this yet? At least, has it yet recognized that the movement of ideas of academic service in developed systems is in accord with their own changing needs, whereas that in Thailand is about trying to approach what 'the others' see as good?

Concerning the above question, as evidenced by studies recently produced in the Thailand context, very little realisation is found. Included in this small body of literature, Sinlarat (2007) raises his concern that, since Thai HE started to import various Western notions, Thai HE has become a follower in the global academic heartland polity. He therefore suggests that it is time for Thailand to develop the Creative and Productive Higher Education (CPHE) and to be more community oriented while at the same time also accepting the Western patterns of innovation systems.

Despite acknowledging various concerns, the researcher recognized not only 'the risk' but also 'an opportunity'. To explain further, the KE was viewed as a flexible development tool whereby its usefulness would rather depend on the user, not the tool itself. This argument is with respect to the historical development of the KE notion being closely linked to the intellectual power of knowledge creation. In the

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[2]They draw the findings on data from the USA, the UK, Italy, Germany, Brazil and Japan.

light of this belief, the researcher argued that the KE would only become an effective tool if the academic sector facilitates the use of it based on Thailand's own needs, context, values and ways of living. This is agreed by Sinlarat (2007), who asserts that university performance based on community affairs should be an ultimate national issue and priority.

2.1.6 What to be concerned about?

The KE concept comes with KE evaluation indices. Presenting their study about economic performance in countries throughout the world using the KE notion, Driouchi *et al.* (2006) proposes four components of the Knowledge Economic Index (KEI) to measure the performance at system level, comprising: (1) economic incentive regime, (2) innovation, (3) education, and (4) information infrastructure.

In Thailand, various Western academic values have been brought into the educational sector, particularly S&T advancement, academic research capabilities and a good rank in the international academic community. As an example, Termpitayapaisit (2006) utilises in his discussion on Thailand and its KE a number of Knowledge Assessment Methodology (KAM) indices, HE knowledge services included, developed by the World Bank Institute. Another study is conducted by Schiller (2006a), who looks at UILs within the Thai IS. In his discussion on the performance of Thai universities acting in the system, he employs indices such as Science Citation Index (SCI) and Index of Specialisation for SCI Publications.

Undoubtedly, the use of these imported indices to evaluate the stand of Thailand on its path towards the KE always results in Thailand presenting a low KE capability. Having concluded so using those indices, recommendations given by these studies are all about how to run into 'a higher level' of the evaluation (see Driouchi *et al.*, 2006; Intarakumnerd *et al.*, 2002; Intarakumnerd and Chaminade, 2007; Liefner and Schiller, 2008; NESDB and World Bank, 2008; Schiller, 2006a). In the mean time, factors regarding the use of the indices for different historical developments between developed and developing systems are left behind.

Arguably, to keep doing this would go nowhere but risk Thailand becoming 'forever a follower'. In order not to fall completely into this path, the researcher argued that there should be a proper implementation taking into account the needs of Thailand and its context, besides following what had already been developed in those Western systems, particularly any imported measurements.

2.1.7   ACADEMIC SERVICES AT REGIONAL LEVEL

According to Schiller's study (2006b), the building of KE at a regional level is the foundation for the Thai KE. Consistent with this, by valuing knowledge regions, Audretsch and Lehmann (2005) find, from the basis of data from Germany, that the production of knowledge and innovation systems within the proximity can enhance the comparative advantage of the regional knowledge capacity through the knowledge spillovers from universities to firms. Similarly, Cooke *et al.* (2002, p.237) point out that different competitive advantages are in accord with the 'variability in initial supply conditions (of knowledge, skills and infrastructure)' that make the production capabilities vary across places.

Claimed as the rationale underpinning this study, to focus on the comparative and competitive advantages of knowledge specific to places is assumed to help Thailand out of being a follower in this era of global capital mobilisation. To explain further, the knowledge served based on the specific context of the location is not as mobilisable as the capital; the priority of the knowledge utilisation is therefore assumed to be the local population being promoted to be the 'human capital' of the economy (Thanki, 1999). Consistent with this notion, the Thai government refers to this kind of knowledge as a 'Thai wisdom' (OEC, 2003a; ONEC, 1999, 2002). As the OEC (2003a, p.9) points out the role of universities in Thai communities as:

> '... [to lay] the foundation for long-term development for the purpose of creating innovations based on Thai wisdom. The innovations will thus become value-added products, allowing the communities to benefit from their intellectual properties.'

As mentioned previously, the KE concept has not gone anywhere away from underpinning the national policies, HE included. However, one of the key problems concerning the policy implementation is insufficient academic services in both the NIS and regional innovation systems (RISs). This identified problem has not yet been resolved (Liefner and Schiller, 2008). This is reinforced by Schiller (2006b) as he regards RISs in Thailand as 'nascent' arguing that the employment of imported RISs knowledge is only in its initial stage of development in this developing countries; further empirical studies are still required.

As a result, with respect to the KE implementation, how well the rhetoric is being responded to at regional level is still in doubt. Having said that, it must be clarified that there is no doubt regarding the KE concept having been acknowledged by the Thai government and by a number of scholars to be a good

concept recommended for the country; what is doubted and is being questioned here in this research is how well academic personnel help to turn 'the good concept' into 'a good practice'.

2.1.8 KNOWLEDGE SERVICES IN KE

Bramwell and Wolfe (2008, p.1175) assert that 'the flow of knowledge does drive innovation, but knowledge transfer from universities to industry is a fluid, complex and iterative process involving many different actors'. Regarded as a traditional approach of knowledge transfer, the knowledge produced from these universities must be codified and then applied to make impacts in the real world economy and society. Implicit in this approach, the knowledge production is a one-way flow from universities to their societies, even though interactive activities are undertaken in the knowledge transfer process. This form of knowledge is known as 'codified knowledge' (Bramwell and Wolfe, 2008, p.1176).

Providing an additional perspective on the knowledge flow, Lundvall (1996, pp.9–10) indicates that learning regions require 'a spiral movement' of knowledge involving both 'codified' and 'tacit' knowledge, with the latter form of knowledge usually generated through practices. Metcalfe and Ramlogan (2005) equate the tacit knowledge to 'private knowledge' which cannot be identical between different individuals. Considering this, the geographical proximity of region is regarded as an enabling factor as it helps facilitate inter-personal connections made between regional knowledge infrastructure and knowledge users (Audretsch and Lehmann, 2005).

Whilst both codified and tacit forms of knowledge are vital in the KE at regional level, Termpitayapaisit (2006) argues that the service role of codified useful knowledge and the problem solving role in Thai universities are still at a minimum. This is based upon two forms of evidence; one is a low rate of research publications and the other is a low production of practical knowledge. These arguments are reinforced by Schiller (2006a) who finds that applied and experimental research in Thai universities are relatively low compared to the business sector and other government research institutions.

Confirming the researcher's investigative rationale, academic services need to be considered at the operational level and examined in-depth to determine how university staff perform their work such that keep these two forms of the knowledge delivery at the low level.

2.2   EXAMINING ACADEMIC SERVICES IN TRADITIONAL LAUS

This section clarifies rationales underpinning the researcher's choice, as introduced in the previous chapter, to examine academic staff in traditional public universities, chosen rather than other university types.

2.2.1   PUBLIC COMMITMENT CHALLENGE

Theoretically, different types of public HE are developed with different purposes and expectations for them to play different roles in society (Duke, 2000). In Thailand, traditional public universities were initially developed to take a leadership role in producing a higher-educated labour force, which is a type of human capital leading the country to its advancement (Chulasai, 2003; Sinlarat, 2004). Unlike traditional universities, former teaching institutes were traditionally expected to focus more on higher knowledge distribution at grassroots level. The primary role of these institutes was therefore teaching activities (Sangnapaboworn, 2003).

According to the history, however, while traditional universities were expected to perform both knowledge production and knowledge provision roles, they did not adequately satisfy the expectation of knowledge production that met the national needs. Even at the present time, Sinlarat (2007) finds that academic services in Thailand are mainly based on the promotion of foreign knowledge, regarded as knowledge from outside, brought into the communities. Considering this background, history has shown that these universities have long acted as teaching institutions and the seeking out of new knowledge was not undertaken in a mainstream fashion (OEC, 2004b; Sinlarat, 2005).

Accordingly, the NESDB and World Bank (2008) point out that the main challenge faced by traditional universities is to improve their research capability with a good academic standing that also yields practical outcomes to benefit Thailand's economy and the well-being of Thai society.

2.2.2   UNIVERSITY RANK

As introduced in the previous chapter, traditional LAUs receive more government funding than other types of public universities[3] (CHE, 2005). This is argued by Sangnapaboworn (2003) as an inequity in budget allocation, considering that all

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[3]See also Section 1.4.2 (pp.6–7).

public universities are unified in accord with the current National Education Act, which sees all public universities as state degree-level institutions.

However, the researcher contradicts Sangnapaboworn's proposition that the government budget is inherently inequitable in terms of monetary volumes allocated to different types of public universities. By doing so, the researcher rather agreed with several studies on government budget allocation (*e.g.* Jongbloed and Vossensteyn, 2001; Orr *et al.*, 2007; Schiller and Liefner, 2007; Weiler, 2000) asserting that the type of university is an essential criterion for the government budgetary mechanism. That is, universities of different types receive different budgets in accord with their different institutional missions requiring different volumes of grant for the university operation.

This idea of university classification is also regarded as a part of the strategies and roadmap for HE reform used by the Office of the Education Council (OEC, 2003a). That is, by overseeing these universities with different institutional missions, the Government will be able to promote sub-systems of networking developed across universities, horizontally (between universities of the same rank), and vertically (between universities with different ranks). The win-win scenario aimed for is that the universities share academic and research excellence via their connections. This idea is consistent with the objective of the 2002 National Education Act indicating that HE in Thailand is to be 'unity in policy and diversity in implementation' (ONEC, 2002, p.5).

Additionally, according to the OEC (2004b), the Thai Government recognizes different potential across different university types and intends to promote their operations using different financial mechanisms. According to the report, in addition to the classification of public HEIs by their admission and management systems, these institutions can also be classified by their key academic activities into five groups: (1) research-oriented universities with good academic standing, (2) comprehensive universities, (3) technical colleges, (4) open universities, and (5) community colleges (Figure 2.4).

FIGURE 2.4: Public HEIs Ranked in order of Public Funding Volume
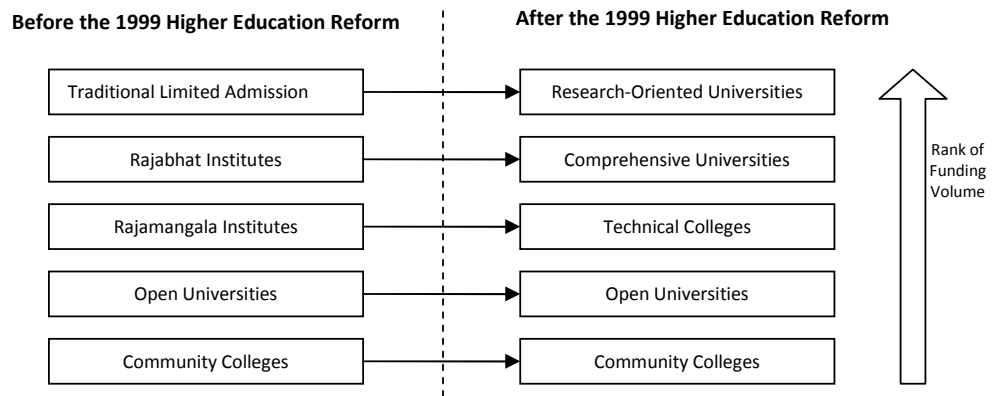
Source: developed by the author, based on the OEC (2004b).

Considering the above five categories, the 22 traditional LAUs present their potential to operate as a **research-oriented university**, which is an ideal characteristic of leading universities serving in KE (OEC, 2004b).

2.2.3   TOWARDS AN AUTONOMOUS UNIVERSITY

Dividing the 22 traditional universities by their university management systems, 18 of these universities are civil servant organisations whereas the other four are autonomous universities. The four autonomous universities are King Mongkut's University of Technology Thonburi (KMUTT), Suranaree University of Technology, Walailuk University and Mae Fah Lunag University. KMUTT was formerly a government organisation, later being granted university autonomy, whereas the other three universities were founded as autonomous universities.

The concept of university autonomy has been in Thai HE for almost three decades; it was started in the early 1980s when KMUTT started preparing to become an autonomous university. University autonomy was officially granted to KMUTT when the KMUTT Act was approved by parliament in 1998.

The organisational transition of KMUTT is often referred to as the a of satisfactory transformation of a civil servant organisation to a state-supervised agency, known as an autonomous university (Sangnapaboworn, 2003). This is due to the remarkable efficiency of the university management reported annually in accord with the indicators of university quality assurance (Liefner and Schiller, 2008; OEC, 2004a).

Based on the empirical success of KMUTT, the government encourages other traditional public universities to take up university autonomy and enjoy more management freedom for tailoring their financial and personnel management (OEC, 2004a; Sangnapaboworn, 2003). This encouragement is presented in Section 36 of the current National Education Act as (ONEC, 2002, p.17):

> 'The state educational institutions providing education at the degree level shall be legal entities and enjoy the status of government or state-supervised agencies ... The above institutions shall enjoy autonomy; be able to develop their own system of administration and management; have flexibility, academic freedom and be under the supervision of the councils of the institutions in accord with the foundation acts of the respective institutions.'

The legislation above is not government enforcement; it is regarded as the opportunity for public degree-level institutions to develop their own management that most suits their institution (Figure 2.5).

FIGURE 2.5: Different Statuses of Public Universities
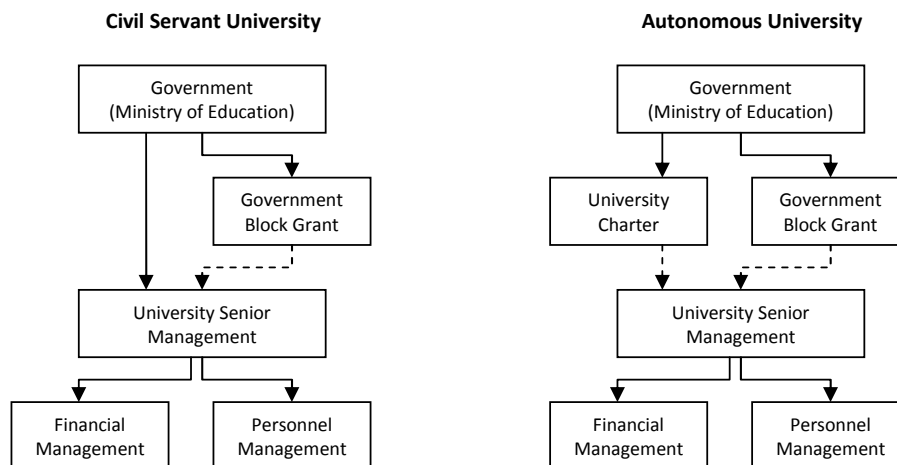
Source: developed by the author, based on the OEC (2004b).

The idea for organisational transformation originated from policy-makers and positive responses to the idea have been given by institutional leaders (NESDB and World Bank, 2008). The reason for the positive response, as similarly given by OEC (2003a) and Sangnapaboworn (2003), is that the university transformation being regarded the opportunity for these institutions to move away from traditional slow process state bureaucracy. To take up the opportunity, the remaining 18 LAUs with civil servant organisation status have opted to transform their status to an autonomous university (OEC, 2006b). At the time this research

was carried out, these universities were in the final process of proposing the university bill to parliament; they should soon become autonomous universities.

The researcher therefore attempted to include this aspect of organisation within the examination of operational academic work. The rationale is that to receive a university autonomy is a big change, not only for the university but also for their academic staff. Considering this view, academic perceptions and responses to the change are assumed to affect significantly the university performance as a whole.

2.2.4 INVESTIGATORY RATIONALES

To summarise, traditional universities need to be more responsive to the knowledge needs of Thai society, in order to overcome historical failures concerning their **traditional public commitment**. Additionally, in order to maintain their prestigious status, these universities should possess a good position in the ranks of **research-oriented universities**; notwithstanding history reveals their poor research productivity in the past as their key problem. The final dimension concerns **the university organisation** for which academic staff work. Figure 2.6 illustrates these investigatory rationales and their interconnecting areas forming the examination of academic operational activities in the central focus:

FIGURE 2.6: Interconnecting Areas of Investigatory Rationales
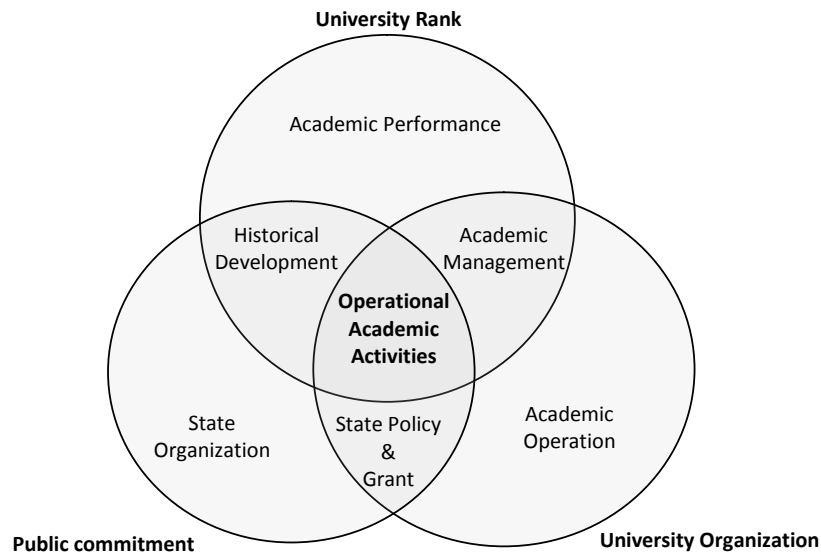
Source: developed by the author.

2.3 REGIONALISATION OF UNIVERSITIES

Previous studies focusing on the roles of universities in their regions look at academic activities which can strengthen the 'human capital development' and 'social and cultural development' in their regions (Puukka and Marmolejo, 2008, p.217). Notwithstanding the concept, the territoriality of one university's region is another issue requiring clarification. Chatterton and Goddard (2000, p.476) point out that 'territoriality is an extremely complex and problematic concept'.

Nonetheless, studies on the roles of universities in their region often regard the region as the geographic proximity surrounding the university (*e.g.* Arbo and Benneworth, 2007; Audretsch and Lehmann, 2005; Boucher *et al.*, 2003; Bramwell and Wolfe, 2008). With regard to the impacts a university may make on this proximity, Chatterton and Goddard (2000, p.475) believe that 'regionally-engaged HEIs can become a key asset and powerhouse for economic development'.

However, the complexity of university regionalisation is involved with an attempt to clarify the impact area of relevance to the university activities. The literature suggests several factors influencing the regionalisation. This section discusses these factors.

2.3.1 GEOGRAPHICAL LOCATION OF UNIVERSITY

Regionalisation can be made sense of in terms of the core and peripheral features of the university (Boucher *et al.*, 2003). In terms of distance, geographical peripheral regions are perceived as being far from the core region, which usually hosts the national authorities and major national and international enterprises (OECD, 1999). However, it is not necessary for communities/cities located in these regions to present rural and undeveloped characteristics (see, for instance, Duke, 2000; Gunasekara, 2006c; Intarachai, 2003; Makishima, 2003).

Despite the above argument, Duke (2000) points out that to regionalise universities using this core/peripheral perspective may lead to the disparity between traditional universities in the core and peripheral regions. This is reinforced by Chatterton and Goddard (2000, p.478) as they claim that 'the term "region" can be equated by some academics with parochialism and be seen as the antithesis of metropolitanism and cosmopolitanism — terms that are heavily associated with the historical development of many old universities'. Consistent with this, Duke (2000) and the OECD (1999) argue that the disparity of universities

in the core and peripheral regions is against the diversity of learning systems as well as the decentralisation of innovation systems.

In the Thailand context, Thamrongthanyawong (2005, pp.10–12) discovers three disparities —'economic disparity', 'social disparity','public health disparity' — concerning the core/peripheral regionalisation. He argues the mishandling of these regional disparities in the past is one of the causes leading to today's existing policy problems. Acknowledging these disparities of regions in Thailand, Thamrongthanyawong (2005) re-examines the policy and recommends that university regionalisation is to be carried out only to help regionalise the university performance, not to be tied to university ranking.

2.3.2 ECONOMIC GEOGRAPHY

In economic geography terminology, by focusing at economic activities, any particular proximities are to be regionalised concerning the geographical concentration of production specific to the area (Krugman, 1991; Martin and Sunley, 1996). In this sense, regionalisation is important concerning production costs in relation to industrial agglomerations and their spatial structures and competitive advantages the industries may gain from being based in certain industrial concentrations (Baldwin and Forslid, 2000). As Krugman (1991) indicates, economic geographies are normally concerned about transportation costs, information spillovers, the size of demand, and the pool of labours and inputs.

By considering the agglomeration of economic activities, Howells (2002) points out the essence of knowledge, in particular tacit knowledge, regarded as a key factor in the innovative activities; he states that 'interests should focus on how geography influences knowledge activity and how geography in turn may be shaped by such processes' (p.871).

Additionally, as mentioned earlier, codified knowledge is also vital to the regional competitive advantages. As Howells (2002) clarifies, there are two approaches to identify the knowledge transfer between universities and their regions: one is to map the codified knowledge in the forms of patents and patent citations and the other is to map the knowledge spillovers, particularly in terms of the movement of people on the basis that knowledge moves with them.

It is discerned that to regionalise a university in terms of economic geography, the links between regional agglomeration and economic integration should be the key

concerns (Martin and Sunley, 1996); this can help the university to identify regional knowledge needs specific to the concentration of regional industries.

2.3.3 CHARACTERISTICS OF THE LOCALITY

The characteristics of the hosting locality of the university are regarded as other factors influencing the regional territoriality. Studying academic perceptions towards their regional engagement, Gunasekara (2006b, p.151) discovers, from his interviews with Australian academic staff, that their university is located as 'a region of regions' whereby the regional identity could be clarified in accordance with the university's physical existence in a particular locational context. In a similar sense, Shattock (2003, p.7) sees the university's region as the origin of 'locational factors' for the university activities.

The characteristics of one locality can be reflected by its arts, cultures, social facilities, norms, values and historical development of the society bounded within the defined proximity. Chatterton and Goddard (2000, p.478) regard these features as 'non-material assets' shared by the university members and diverse bodies of regional partners and institutions such as individuals, firms, authorities and other educational institutions.

Audretsch and Lehmann (2005) and Boucher *et al.* (2003) find these specific features as to shape the regional ideas of academic members concerning the regional governance, interpersonal connections and social networks. Similarly, Chatterton and Goddard (2000, p.490) state that social ideas and cultures can be 'shared' and 'transmitted'. Implicit in this sense, one locality can also be opened and internationalised through social as well as academic networking.

2.3.4 HISTORICAL DEVELOPMENT OF UNIVERSITY

Duke (2000, p.62) points out that regional university is loosely linked to being a teaching-oriented institution serving just 'the learning and accreditation needs of a local/regional community'. This perspective is also presented in the Thailand context. That is, former teaching institutes, namely Rajabhat Universities and Rajamangala Universities, are often perceived as regional universities for local and community development (Sangnapaboworn, 2003). Considering that former teaching institutes are positioned in a lower rank than those traditional limited admission public universities, to employ this perspective for traditional

universities could lead to the devaluation of the university's third role performed at regional level.

Additionally, university territoriality is sometimes conceived as a connotation of 'the university preoccupation with the international academic and research communities' (Chatterton and Goddard, 2000, p.476). With international ranks being highly valued, esteem towards their elite status in the international academic and research communities could disturb the regionalisation of traditional universities.

Boucher *et al.* (2003) discovered that traditional universities tend to be less involved with their region due to the lack of regional identity conceived by the universities themselves[4]. They suggest that these universities tend to regard themselves as serving as elite institutions in the system of their national HE; to increase their service at regional level is claimed to detract from their national and international reputations in teaching and research.

Chatterton and Goddard (2000, p.476) suggest that the low awareness of regional engagement in universities can be in accord with their 'preoccupation with international and national academic and research communities'. Agreeing with this, Schiller (2006b) discovers in his study about RISs in three Thai political regions, Bangkok, the North and the North-east, that the perceptions of academic themselves prevented academic involvement in the RISs. He also states that [a] trade-off between world-class research, academic prestige, and responses to regional needs is especially prevalent at the oldest Thai university [which is located in Bangkok]' (Schiller, 2006b, p.500).

2.3.5 REGIONAL AGENDA

The above factors show that the university regionalisation can be complex. These factors point to not only academic but also social and economic concerns regarding diverse expectations and values of the university acting in the region (Figure 2.7).

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[4]This is a multi-site case study conducted in 14 core and geographical peripheral regions of several European countries, including: the North East of England and London in the UK; Shannon and Dublin in Ireland; North Karelia and Helsinki in Finland; Verijssel (Twente) and Noord Holland (Amsterdam) in the Netherlands; Ruhr and Aachen (North Rhine Westphalia) in Germany; Andalucia and Madrid in Spain; Crete and Attica (Athens) in Greece.

FIGURE 2.7: University Regionalisation - Review of Literature
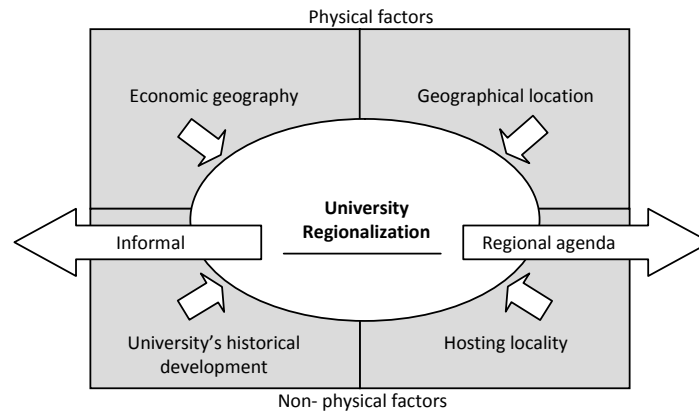
Source: developed by the author

Furthermore, it is important to bear in mind that regionalisation may not be adopted by all universities; some universities may perform their service without occupying a specific geographical territory. Nonetheless, Boucher *et al.* (2003) points out that university regionalisation is assumed to help the university to identify its partners in the knowledge transfer and innovation systems.

Additionally, as pointed out by Gunasekara (2006a, p.733), a university with a clear specific targeted service territory tends to have a regional agenda, or a 'selective, targeted engagement by the university', that 'best' helps shape academic ideas about their regional roles. While agreeing with this, Puukka and Marmolejo (2008) are also aware that the agenda formation is challenging depending on the university management conception and capacity.

Considering the above issues regarding university regionalisation, the researcher therefore attempted to examine the adoption of regional agenda in Thai universities and the way in which this shapes the work of academic staff.

2.4 UNIVERSITIES AND THE KNOWLEDGE REGION

Very often, national policy initiates the idea of building a knowledge-based society. However, Tappeiner *et al.* (2008) point out that refined implications put on regional innovation and knowledge transfer systems can be more specific to places with specific economic and societal needs. As illustrated in Figure 2.8, universities are seen as the knowledge infrastructure of the knowledge region of which they are a member (Bramwell and Wolfe, 2008; Charles and Benneworth, 2001):

FIGURE 2.8: Knowledge Region
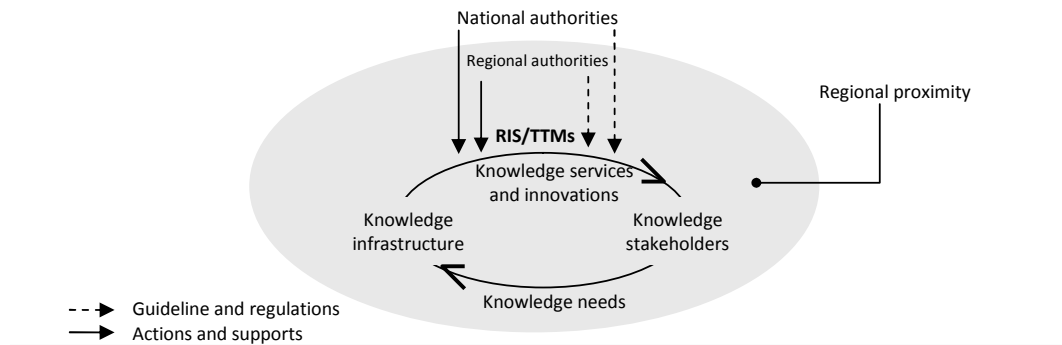
Note: RISs = Regional innovation systems, TTMs = Technology transfer mechanisms
Source: developed by the author with some material from Bramwell and Wolfe (2008), Charles and Benneworth (2001) and Etzkowitz *et al.* (2000).

Based on the above idea, this section outlines six known models of universities acting in the knowledge region followed by discussion on the positioning of universities in the RISs and various aspects of their role in the system. The purpose of doing so is to gain common interests about the academic services shared by these models, which are claimed to help the building of the KE.

2.4.1 BEING AN ACTOR IN THE KNOWLEDGE REGION

During the initial literature search, the researcher found six models of university organisation widely adopted in various HE systems, both developed and developing, as approaches to universities playing their roles in the RIS. To provide a basis for further discussion on how these models shed some light on the researcher's understanding about university roles, a description of these models is given as follows:

2.4.1.1 *Conventional Linear Technology Transfer*

Regarded as the conventional approach to technology transfer, the first approach is known as 'a linear model' referring the knowledge transfer as 'a one-directional process' (Caraça *et al.*, 2009), or 'a one-way transfer of knowledge' (Drejer and Jørgensen, 2005), or 'a sequential process' (Laredo, 2007). Caraça *et al.* (2009, p.862) pictures the knowledge travelling through a linear model starting from 'basic science' produced in the university passing through 'applied science', through 'technological development' and through 'marketing and manufacturing', which eventually makes 'economic impacts' on the outside society. In this model, universities work on the production of basic knowledge, or fundamental

knowledge, and have little involvement in the application of the knowledge outside academia (Figure 2.9).

FIGURE 2.9: Conventional Linear Technology Transfer
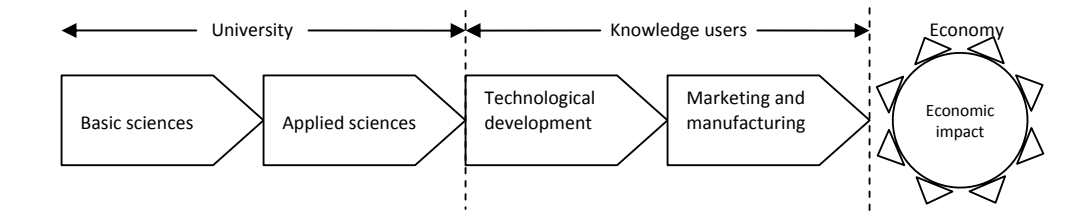
Source: after Caraça *et al.* (2009).

Considering the linear procedure, Caraça *et al.* (2009, p.862) argue that the fundamental knowledge is assigned as 'the prime impulse behind most sophisticated working technology leading to economically significant impacts'. In this sense, universities using the approach are insulated from the utilisation of knowledge outside academic interests (Bramwell and Wolfe, 2008). Similarly, arguing the weakness of the approach, Etzkowitz *et al.* (2000) state that academia is sometimes viewed as being deposited in an ivory tower and not practically involved with the knowledge needs of the real world problems. Sharing the same concern, Nowotny *et al.* (2003) point out that the knowledge production and the context of application hardly interact.

2.4.1.2 'Mode 1' University

In addition to technology and scientific knowledge transfer, the linear model can also be applied to other disciplines of social sciences and humanities. Universities using a linear approach for their knowledge transfer, scientific and social scientific, are regarded as 'Mode 1' universities (Gibbons *et al.*, 1994; Nowotny *et al.*, 2003). Ferlie and McNulty (1997, p.376) explain that the 'Mode 1' approach is 'driven by the traditional academic disciplines within a linear process of discovery and dissemination'. In this sense, the production of knowledge in 'Mode 1' universities is disciplinary-led. This is in accord with the 'traditional disciplinary lines' (Charles, 2003, p.10) of an academic community, also known as 'an academic heartland' (*e.g.* Clark, 1998; OECD, 2007).

For 'Mode 1' universities, Harloe and Perry (2004, p.214) find that 'problems are set and solved by means that are controlled by the specific disciplinary communities themselves'. In this regard, the context of application is not taken into account by the academic serving the knowledge. In order to serve regional needs, the 'Mode 1' approach is often argued as not practical due to the needs

normally emerging in accord with specific characters of places, in which the context of application is essential.

By considering 'Mode 1' research activities, Arbo and Benneworth (2007, p.29) argue that the disciplinary based research driven by 'internal considerations' is challenged; they explain that 'Mode 1' academic communities 'speak to' the society rather than hearing what 'the society speaks back' to them. The OECD (2007) points this out as barriers and bottlenecks caused by the non-applicable knowledge produced as detached from the context of application, which is claimed as not providing immediate impact on economic development (Figure 2.10).

FIGURE 2.10: A Bottleneck of 'Mode 1' Knowledge Transfer

Source: developed by the author, based on the OECD (2007).
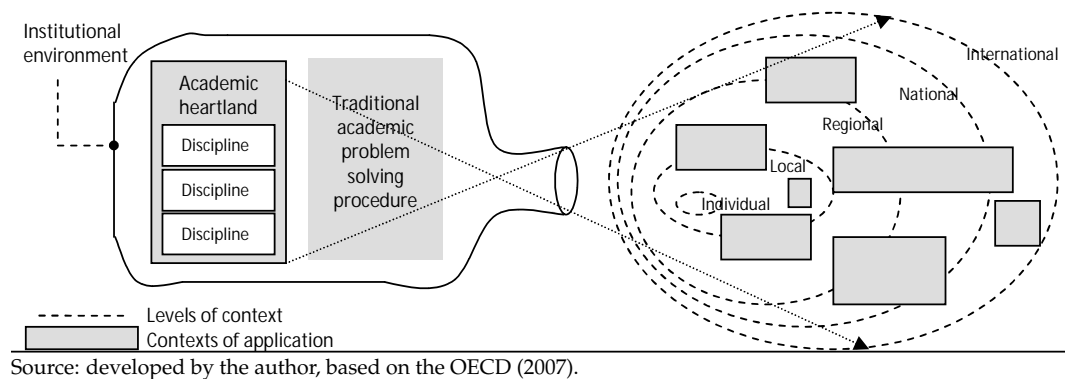
2.4.1.3 'Mode 2' University

Arbo and Benneworth (2007) believe that the characteristics of society and economy vary across places. Implicit in this, the knowledge needs of specific places are assumed to vary depending on the context of application shaped by their social and economic characters. With regard to the significance of the context of application, Gibbons *et al.* (1994) revisit the traditional 'Mode 1' approach and develop a new approach known as 'Mode 2'.

In contrast to the forms of knowledge production in the 'Mode 1' model, those in 'Mode 2' take into consideration forces outside academia, such as community expectations and government policy on innovation (Gibbons *et al.*, 1994; Gunasekara, 2004). The 'Mode 2' knowledge is therefore generated 'within a context of application' rather than rooted in internal interests of the disciplinary lines of academic communities (Nowotny *et al.*, 2003, p.186). In this regard, the knowledge produced is 'application-oriented' (Nowotny *et al.*, 2003, p.179). Not being preoccupied by specific disciplinary roots, academic activities desired by the

'Mode 2' knowledge production are multidisciplinary, transdisciplinary and cross-institutional (Gunasekara, 2004; Nowotny *et al.*, 2003).

The 'Mode 2' approach focuses primary on the relationship between the university, industries and markets (Arbo and Benneworth, 2007). Applying the approach at regional level, the development of close linkages across universities and industrial organisations is believed to facilitate the integration of supply and demand factors diffused through the context society (Gunasekara, 2004). Consistent with this, Harloe and Perry (2004, p.214) suggest that networks at the sub-national level are necessary in the knowledge-based region as they help 'circumvent' such external complexities caused by the global knowledge-based context, in which the distribution of innovation and actors involved are much more complex.

According to Gibbons *et al.* (1994), 'Mode 2' knowledge is developed in concrete contexts: (1) the commercialisation of research, (2) the development of mass HE, (3) the role of humanities in the production of knowledge, (4) the context of globalisation, (5) the potential re-configuration of institutions that flowed from the wider distribution and greater reflexivity of knowledge production, and (6) the management of 'Mode 2' knowledge. Nowotny *et al.* (2003) argue that the last two contexts are so far least developed and require further studies.

In a similar sense, since the interaction between universities and the outside society is the third role of universities, Laredo (2007, p.454) states that the activities of such an approach serving this third role is the result of the university's positioning, which is relevant to the university's 'contingent historical factors'. Implicit in this, not only the context of application but also the institutional environment of the university itself, are the factor shaping the way in which the 'Mode 2' model is employed. Concerning various perspectives towards the 'Mode 2' model, the positioning of universities and their role in the region can be illustrated as in Figure 2.11:

FIGURE 2.11: 'Mode 2' Knowledge Transfer
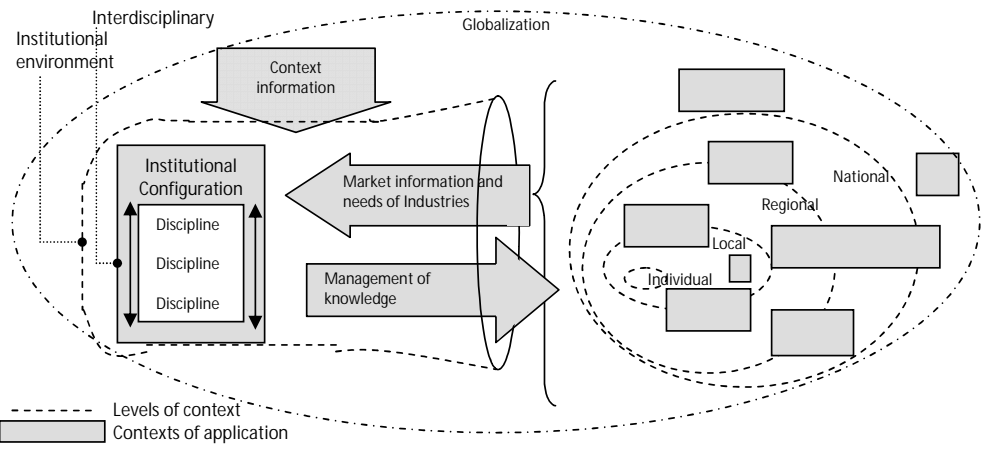
Source: Developed by the author.

2.4.1.4 Triple Helix

The triple helix model refers to a knowledge transfer system involving academic-industry-government relations (Etzkowitz and Leydesdorff, 2000). The model is developed with an emphasis on the government role acting as a 'mediator' for educational institutions and public and private agents, with regard to the overlay network of communications and expectations among these agents in the innovation system (Drejer and Jørgensen, 2005, p.85). Taking into account the overlay network, systematic institutional arrangements among these three bodies of involved agents are required (Figure 2.12).

FIGURE 2.12: Triple Helix Model
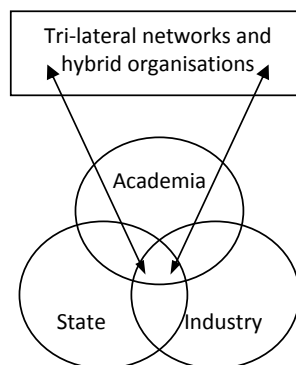
Source: Etzkowitz and Leydesdorff (2000, p.111).

Knowledge service using this model is a part of 'the academic heartland of research and teaching', in which the activities undertaken are disciplinary-led (OECD, 2007, p.38). The employment of the triple helix model at regional level

requires more confined institutional arrangements than that at national level (Arbo and Benneworth, 2007; Kitagawa, 2004). In this sense, regional universities, regional authorities and regional industries play their roles in the trilateral hybrid interactions within the territory while state policy bounds the system (Etzkowitz and Leydesdorff, 2000). By viewing universities as the knowledge producer in the triple-helix system, Leydesdorff (2000) emphasizes an importance of regional context to universities; he indicates that 'the relevant environments can be hypothesized and therefore the development is knowledge-intensive ... niches have to be nurtured and regions developed' (Leydesdorff, 2000, p.253).

2.4.1.5   Engaged University

The term 'engaged university' refers to a university whose community context is involved with activities undertaken within the university (Rubin, 2000). In other words, engaged activities are the features of the university's 'community engagement', more specifically 'regional community engagement' when the university-region engagement is in focus (*e.g.* Benneworth and Sanderson, 2009; Charles, 2003; Gunasekara, 2006b). Figure 2.13 illustrates some of the basic activities of knowledge services within the region of an engaged university:

FIGURE 2.13: Engaged-University
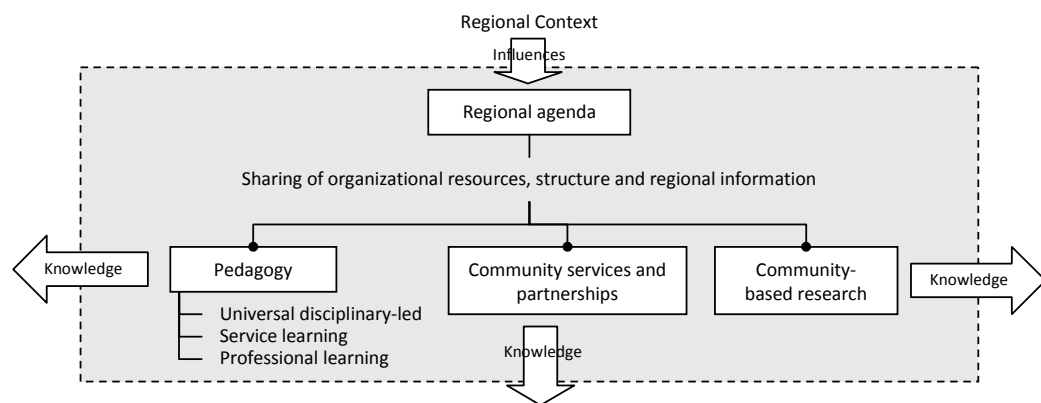
Source: developed by the author with some material from Charles (2003), Chatterton (1999) and Holland (1997).

For regional engaged universities, the regional context involves all domains of university work, including teaching, research and services (Chatterton and Goddard, 2000). According to the OECD (2007, p.177), those universities with a good standing in regional engagement 'have embraced the role of good regional citizenship'.

Chatterton and Goddard (2000) find that inter- and trans-disciplinary modes of knowledge production favour regional engaged universities. Agreeing with this,

Holland (1997) asserts that the academic staff in universities with high interdependency with their regions conduct community research in accord with the regional agenda; by conducting problem based research, the interdisciplinary mode of research activities is desirable. In addition to the research dimension, teaching and learning is another community based dimension of regional engaged universities, known as service learning. By taking service learning courses, students are involved in community-based research or independent studies supervised by the instructors (Holland, 1997).

As another knowledge transfer activity, the pedagogy in regional engaged universities is also aimed at extending professional learning, serving the notion of life-long learning in addition to the conventional forms of student learning (Charles, 2003; Chatterton and Goddard, 2000). Thanki (1999, p.897) defines the flexible structure of courses that serve these purposes as 'experiential learning' conducted in response to the knowledge needed by professionals.

2.4.1.6   Cluster

The development of 'knowledge-based clusters' has become an important model that shapes activities of knowledge transfer in many universities perceiving themselves as actors in the innovation systems of a specific spatial geography (Cooke *et al.*, 2002). Considering the role of universities in a cluster, this model focuses on the knowledge infrastructure provided in accordance with the characteristics of industries within the specific spatial territories, known as 'industrial clusters' or 'agglomerations' (the terms are widely used interchangeably in HE literature, *e.g.* Cooke *et al.*, 2002; Harloe and Perry, 2004; Howells, 2005). Additionally, based on the key concern of cluster development pointing to the competitiveness of the local industries and employment, Kitagawa (2004) considers that the overall impacts of the clusters are presented in a wider social and economic extent on the geographic territory.

This model is built in accord with today's globalisation, in which competitiveness built in economies at sub-national level are believed to increase its importance in contributing to the national competitiveness (Dunning, 2000; OECD, 2007). The significance of cluster building, according to Harloe and Perry (2004), is that clusters serve the mobilisation of 'tacit knowledge', or 'know-how' to promote the competitive advantage of industries located in the cluster proximity; they claim that this form of knowledge, being more specific to locality, is likely to be transferred through local networks rather than to be codified and transferred across wide distances.

Considering that human capital plays a central role in the knowledge-based economy, Charles (2003, p.11) points out an importance of the development of industrial clusters as relevant to local industries making demands on the local labour market as:

> 'Universities have traditionally produced graduates for a national labour market dominated by large employers, with little concern for SMEs [small and medium enterprises] or graduate retention in local labour markets. This model has begun to break down in response to changing patterns of employer demands, such as the decentralisation of large corporations into clusters of smaller business units and the greater role of smaller businesses as sub-contractors, suppliers, franchisees, etc., with consequent implications for the skills required of graduates and the location of the recruitment decision.'

A university can play diverse roles in a cluster. As suggested by the OECD (2007), expected roles of cluster universities include: to provide a science-based discovery and new business formation; to provide direct advice to firms to enhance management capabilities; to produce skilled labour; to consume specialist supplies provided by the cluster industries; to conduct knowledge dissemination related to industries down the supply chain; and to give advice on policy and regulations to national and regional agencies. Puukka and Marmolejo (2008, p.238) add that cluster universities can also play 'a catalyzing role' by offering services such as technology and knowledge transfer, licensing, consulting and problem-solving services as well as acting as a public space for open-ended dialogue for industrial networks within the cluster.

2.4.2 POSITIONING THE UNIVERSITY IN THE KNOWLEDGE REGION

Based on the above models, comparisons of the key implications of these models are summarised in Table 2.4:

TABLE 2.4: Comparisons of Existing Regional Innovation Systems

Model	Domain of Knowledge	Expected University Roles	Involved Activities	Demands for Knowledge Service
Linear technology transfer	Scientific	Disciplinary-based knowledge production; detached from the practical applications of the produced knowledge.	Research	Basic and applied disciplinary-led research.
'Mode 1'	Comprehensive[*]	Disciplinary-based knowledge production; Linear knowledge transfer.	Research; Teaching.	Disciplinary-led research; Classroom teaching.
'Mode 2'	Comprehensive[*]	Application-oriented knowledge production;Interactive knowledge transfer.	Research; Teaching.	Inter-disciplinary research; Interactive teaching-learning.
Triple Helix	Scientific	Disciplinary-based knowledge production; Interactive knowledge transfer.	Research; Teaching.	Disciplinary-led research; Classroom teaching.
Engaged University	Comprehensive[*]	Problem-based knowledge production; Interactive knowledge transfer. Community-based pedagogy	Research; Teaching; Community Services.	Inter-disciplinary community-based research; Service learning; Classroom teaching; Community Services as part of the scholarship.
Cluster	Comprehensive[*]	Disciplinary-based knowledge production; Interactive knowledge transfer.	Research; Teaching; Community Services.	Disciplinary-led market-based research; Classroom teaching; Community Services as to promote tacit-knowledge networking.

Note: [*]involves comprehensive areas of disciplinary.
Source: developed by the author.

The above table presents the comparisons across diverse approaches together with the forms of required academic involvement, which vary among the different approaches. To make sense of these approaches in practice, however, it is important to note that the ways in which they are applied in universities are not clear-cut; hence, the expectation of academic involvement, and the importance of understanding more about the assumption of academic staff.

In practice, one university may deliver their academic services, which provide for knowledge transfer to the region, using a mixture of characteristics of multiple models. In some cases, these theoretical characteristics are presented without the university recognition.

For instance, Etzkowitz and Leydesdorff (2000, p.119) find that 'Mode 1' characters may be present as 'subsystems' within 'Mode 2' universities. This is due to the complex academic organisation within universities. That is, in one university, some disciplines may participate in the trans-disciplinary knowledge production, whereas others may prefer the traditional disciplinary-led approach. As another example, an 'engaged regional university' may also be seen as included in 'the regional cluster arrangement' whereby cooperation between the university, regional industries and regional authorities are promoted to serve the innovation and technology knowledge transfer (Chatterton and Goddard, 2000).

2.4.3 INTERACTIONS WITH NON-REGIONAL ACTORS

The RIS involves not only regional actors but also non-regional actors. According to Kitagawa (2004), the boundaries between the regional and non-regional interactions are not clear-cut; exchanges of knowledge and resources are essential. As an example, Arbo and Benneworth (2007) show interactions of regional businesses with non-regional actors for an exchange of resources (exports and regional investments) whereas universities exchange knowledge with non-regional actors (learning from non-regional academic communities and dissemination of produced knowledge). Figure 2.14 illustrates these interactions:

FIGURE 2.14: Components of Regional Innovation Systems
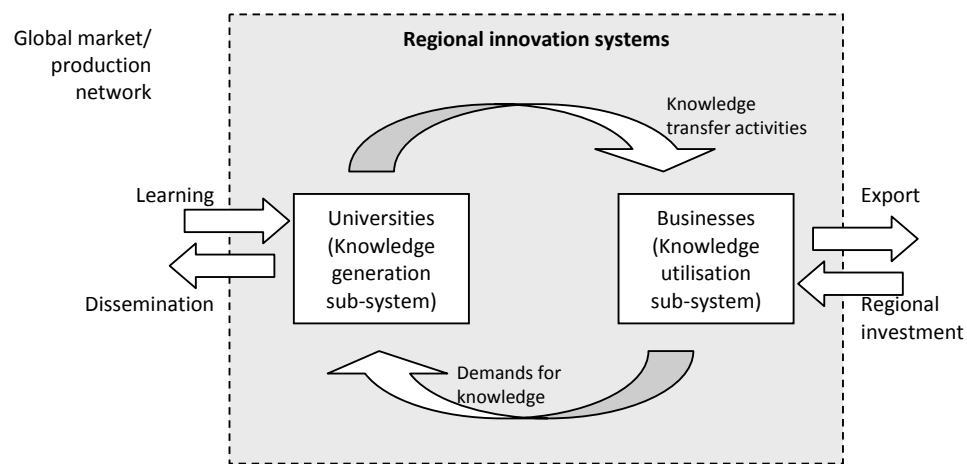
Source: adapted from Arbo and Benneworth (2007, p.33).

As another example, Liefner and Schiller (2008) find both 'direct' and 'indirect' technological knowledge transfers between local universities and industries in Thailand. The direct knowledge transfers are founded as a part of a triple helix system as the government subsidies to multinational corporations (MNC) (seen as external actors of the RISs) are found to help fostering advanced knowledge

transfers from their affiliates in Thailand to local firms more than local universities do. At the same time, indirect approaches occur through graduates of some local universities establishing co-operations with their local MNC affiliates (Table 2.15).

FIGURE 2.15: The Extended Role of Universities in Technological Upgrading
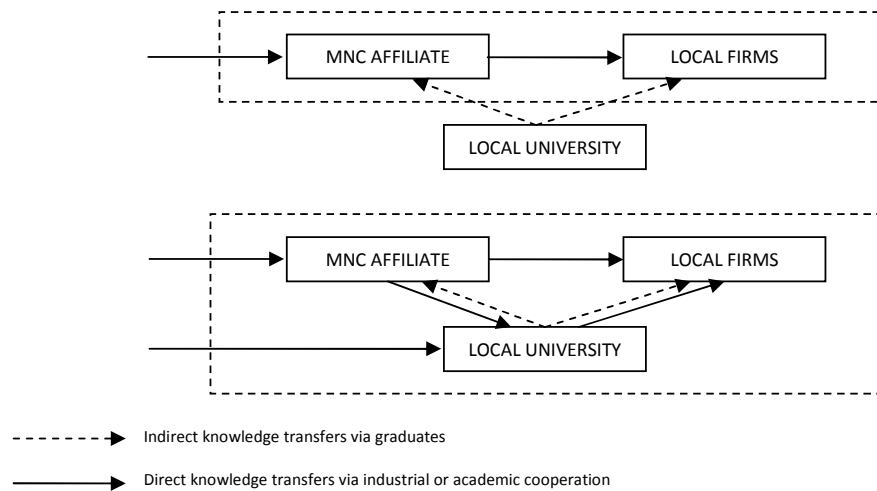
Note: MNC = Multinational corporations.
Source: Liefner and Schiller (2008, p.279).

Considering the above cases, it is suggested that this study is not to exclude external factors and actors from outside the university's region as the context of the investigation.

2.4.4   POSITIONING ACADEMIC SERVICES IN THE RISs

Despite the variation of approaches, it is recognized that the key role of a university is mainly to facilitate knowledge services (Figure 2.16).

FIGURE 2.16: Knowledge Services in Knowledge Region
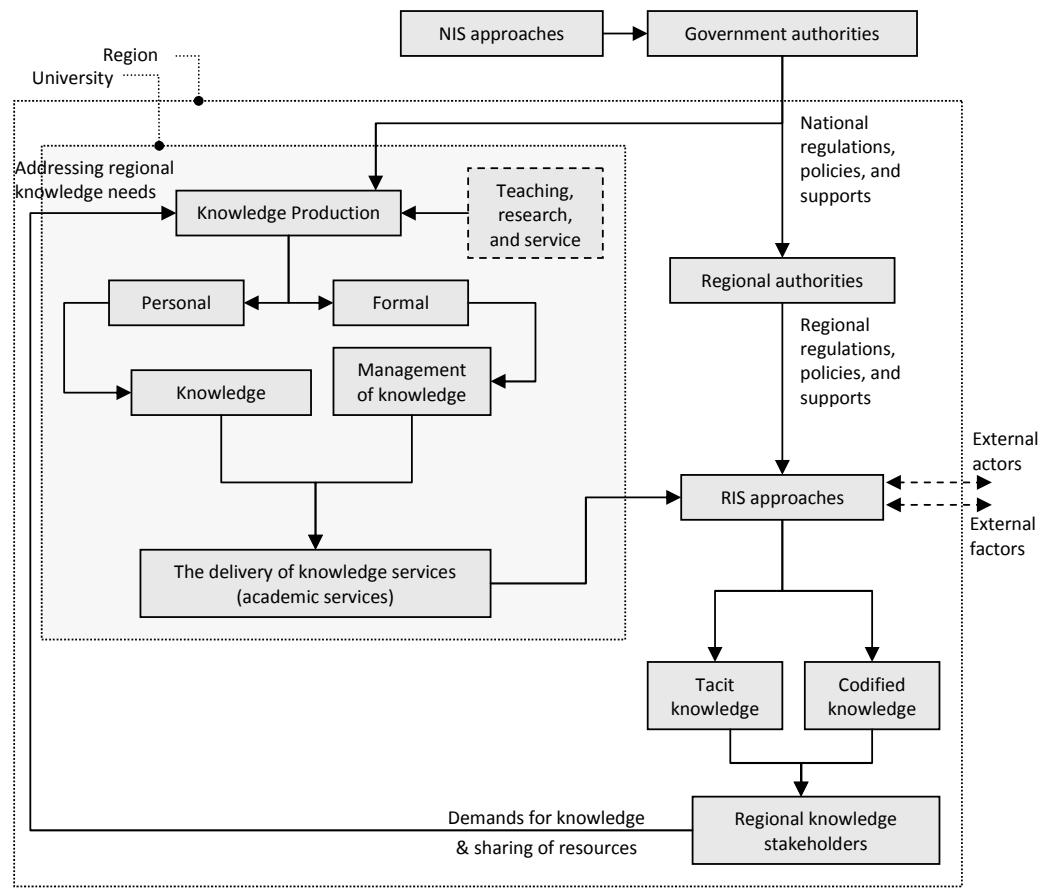
Note: NISs = national innovation systems, RISs = regional innovation systems.
Source: developed by the author.

Bearing in mind that academic service is a part of the academic work profile demanded in the innovation systems of which their university is a member, it is assumed that individual academics address the knowledge needs in the society associated with the particular service function of the university that they work for. Looking at the IS transition in Thailand, however, Intarakumnerd (2006) finds that Thai universities present a very slow self-adjustment while other actors, such as the government and private firms (knowledge stakeholders), perform their parts relatively quicker. The reason for this, as Intarakumnerd (2006) claims, concern academic mindset and the university routine. In order to resolve this issue, it is therefore vital for both the academic mindset and the university routine operation to be examined.

The literature reviewed above also suggested that it is not always the case that academic staff perform their services under the designed knowledge management of their universities; they may also opt for participating in the system on a personal basis. Nevertheless, for either way of the academic involvement,

academic participations are a part of the RISs, which other terms, such as technology transfer mechanisms (TTMs) (*e.g.* Virasa, 2008) and university-industry technology transfers (UITT) (*e.g.* Siegel *et al.*, 2003) are sometimes used for technology-based knowledge transfers in particular.

Accordingly, the researcher became aware that the investigation was to cover not only formal expectations but also personal performance concerning the variety of academic understanding; some may find it necessary to perform service work as part of the system whereas others may act for different reasons.

2.4.5 UNIVERSITY AUTONOMY AND THE SERVICE FUNCTION

As introduced in the previous chapter, whilst the notion of a knowledge-based society has been used as the key principle of HE reform in Thailand, public universities are encouraged to become autonomous institutions in order to enjoy more freedom in university management and in the promotion of academic freedom (ONEC, 2002).

According to De la Fuente (2002), academic freedom is closely linked to university autonomy, but the concepts should not be mixed up; otherwise, with regard to the context of globalisation where competition for position and market concerns have become issues, the sense of social responsibility of public universities could be at risk arising from academic freedom. This is reinforced by Van Ginkel (2002, p.348) who states that '[t]here is no freedom without limits. Those limits are set by accountability and pertinence'. With respect to the issue of academic freedom and social responsibility, De la Fuente (2002, p.338) explains that:

> 'If we consider academic freedom as part of autonomy, the principle of "he who pays commands" does not apply. Academic freedom implies an element of independence and great intellectual freedom in addition to the origin of the resources the institution needs if it is to function, especially when such resources are public, that is, when they come from government subsidies.'

Traditionally, Thai public universities were developed to serve public (social and economic) purposes with no concerns for their private economic purposes (Sinlarat, 2004). However, with contemporary government policies and economic pressures, these universities are unable to deny the impact of an increased pressure to concern themselves more with their private economy. This pressure is emphasised by Van Ginkel (2002, p.348) who finds that economic and financial concerns have become 'major threats' to the 21st century's university.

As a new perspective of university organisation, an entrepreneurial approach is therefore recommended to enhance operational performance in Thai public universities (OEC, 2004c). To clarify the characteristics of entrepreneurial universities, Clark (1998) identifies five essential elements of the university, including: (1) a strengthened steering core, (2) an enhanced developmental periphery, (3) a diversified funding base, (4) a stimulated academic heartland and (5) an embracing entrepreneurial culture.

However, bearing in mind that entrepreneurialism expresses a business-like sense adopted in university organisation, Lazzeroni and Piccaluga (2003) point out that the notion is sometimes challenged when being employed in public universities; the balance between knowledge commercialisation and social criticality concerning the quality and relevance of long-term knowledge production may be difficult to strike. Sharing the same concern, Clark (2000, p.19) acknowledges both good and bad characteristics of entrepreneurialism adopted in public universities; as he asserts that 'institutional arrangements are good or bad according to how they fit a particular sector of society at a particular time'. Consistent with this argument, for academic operations serving knowledge needs of industries in the KE, Vallas and Kleinman (2007, p.7) recommend a balance between 'academic capital' and 'economic capital' as well as 'the traditional discovery-oriented' and 'the entrepreneurial orientation'.

It can therefore be claimed that the way in which universities address the knowledge needs of their region is associated with the organisational character that they choose for themselves, resulting from the balance between knowledge commercialisation and the traditional provision of non-commercialising academic operation (Figure 2.17).

FIGURE 2.17: Balancing the Purposes of Academic Operation
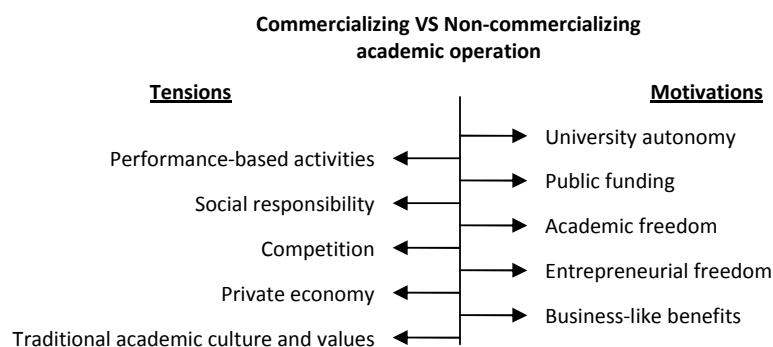
Source: developed by the author.

Considering the organisational layers as well as the diverse 'heartland' of departmental structures, it is observed that the fashion of character balancing might be carried out not only at the institutional but also at the sub-institutional, or departmental, level. Consistent with this, Colbeck and Wharton-Michael (2006b) find the institutional environment to shape the context of belief of academic members concerning a particular mission, resources, norms and evaluations of the university together with those of the department of which they are a member.

To study the work of individual staff, bearing in mind various influences of the university autonomy on the institutional environment, it is inevitable that the institutional profiling of their universities being included as the context of the investigation. For this study, aspects of the profiling, at both institutional and departmental levels, of relevance to the service mission are to be focused.

2.5 ACADEMIC SERVICES IN THE KE

Regarded as a vital part of the RIS, academic service requires further discussion. This is due to the complex academic culture within the university, in which academic staff 'have a variety of system goals' (Livingston, 1974, p.35). To explain further, each individual or group of university academic staff value their academic work in different ways. These complex values are assumed to shape the way in which individuals manage their efforts to diversify various demands made on their academic performance (Bolton, 2000).

Holland (1997, p.5) suggests that to look at academic involvement in service is to focus on 'individual behaviours' and 'time choices' made by academics, regarding the involvement in such work as 'a reflection of their personal adoption of service as a component of their professional work'. However, as Gunasekara (2006b) argues, missing from existing literature, even those of developed systems, are the imprecations of the knowledge-based rhetoric at operational level; the literature lacks an understanding of the way in which the rhetoric is made sense of and responded to by individual academic members. This section therefore discusses academic work concerning 'how' it could be undertaken to result in service performance that serves as the knowledge infrastructure in the RIS.

2.5.1 Serving the Region: the Third Role

Traditionally, academic work involves three forms of activity, namely, teaching, research and service (Boyer, 1990; Votruba, 1996). However, with regard to an increase in expectations made on the work of university academics in accord with increased expectations of university roles in society, it is believed that it is time to reconsider the traditional 'labels' of this 'tripartite' of academic functions (Amey, 2002, p.33).

Attempting to redefine academic work, Duke *et al.* (2006, p.35) state that the work comprises 'teaching, research and extension'. Similarly, the OECD (2007, p.189) recommends that academic work involves 'teaching, research and a third stream of activities', while Cortés-Aldana *et al.* (2009, p.811) regard academic work as 'teaching, research and direct contribution to social and economic development'. Providing a fundamental understanding of the service task, the OECD (1999, p.93) defines relevant activities as 'the extramural activities of individual staff …recognized as "a third role" alongside teaching and research'.

Regarded as a classic issue of motivation, it is desirable that university academics shift their roles from acting in 'ivory towers', where universities are located in communities and their knowledge production is insulated from the outside community, to acting as a good community player, with academic performance benefiting practically the real world society and economy (Benneworth and Sanderson, 2009; Bramwell and Wolfe, 2008; Etzkowitz *et al.*, 2000). To do so at regional level, the work of academics involved with the outside community is also known as 'community service' (*e.g.* Chatterton and Goddard, 2000; Holland, 1997; Peterman, 2005), 'public service' (*e.g.* Checkoway, 2001; Colbeck, 2002; Goldstein and Drucker, 2006), 'outreach activity' (*e.g.* Amey, 2002; Votruba, 1996), and 'regional engagement' (*e.g.* Benneworth and Sanderson, 2009; Gunasekara, 2006b).

2.5.2 Commercialising or Non-Commercialising Service

The third stream of activities could be either commercialised or non-commercialised, depending on the institutional mission and on specific activities, which are in accordance with the approaches of the delivery of academic service chosen by the university or its academic departments.

In one sense, academic work is redefined while the sense of being a public good remains (Boyer, 1990; Dill, 2005). One well-known idea is proposed by Boyer

(1990) in his book titled 'Scholarship reconsidered: Priorities of the professoriate'. He reconsidered academic work to comprise the four components of scholarship: teaching, discovery, integration and application. To explain further, the scholarship of teaching deals with the teaching-learning process, the scholarship of discovery refers to the production of new knowledge, the scholarship of integration focuses on inter-disciplinary activities whereby academics across disciplines may work together, and the scholarship of application refers to the application of fundamental academic discovery for practical use (Boyer, 1990).

Later, putting more focus on academic involvement with the community, Boyer (1996) added a new paradigm of the 'scholarship of engagement' to his original scholarship reconsideration. The scholarship of engagement suggests universities share their rich resources with their civic societies (Ward, 2003). Following this notion, it is suggested that academic staff should be concerned more with civic problems and view their status in the university as a resource to be shared with the public. Others (*e.g.* Colbeck and Wharton-Michael, 2006a; Kezar, 2005; Yapa, 2006) also present similar views to support academic staff being concerned with public benefits as the result of their academic performance.

In the other sense, academic service adopts a sense of commercialisation. This body of literature includes Etzkowitz *et al.* (2000, p.34) who regard academic work as 'teaching, research and business activities'; they propose that this idea is in accord with the desired entrepreneurial character of today's universities, being 'a cost effective and creative inventor and transfer agent of both knowledge and technology' (Etzkowitz *et al.*, 2000, p.34). This view is similar to Harloe and Perry (2004, p.217) whose study is about 'Mode 2' universities challenging the possibility of reconceptualising their activities as involving 'teaching, research and specific enterprise activities'. With regard to the commercial culture, other studies in this body of literature (*e.g.* Bramwell and Wolfe, 2008; Charles, 2003; Chatterton and Goddard, 2000; Clark, 1998) also recommend the application of entrepreneurial formats of academic activities, where strategic management and funding mechanisms are reported as the key controls over academic behaviours, making responses to the needs of outside society.

2.5.3   DISCIPLINARY-LED OR INTERDISCIPLINARY

Traditionally, the academic community within universities is formed as 'heartland' departments, where one academic department consists of academic members working in the same area of disciplines, although their specific areas of

expertise might vary (Clark, 1998). The traditional culture of the academic community is therefore conceived as discipline-led.

However, this traditional culture is often argued as detached from the reality of real world problems. This is emphasized by Boyer (1990) who was concerned by the pride of American research universities. Reinforcing Boyer's concern, Yapa (2006, p.74) emphasises that 'the research university model pursues "knowledge for its own sake" and neglects practical affairs, it claims to be objective and value-neutral, and it emphasizes discovery of scientific facts over understanding the relation of values to science'.

Agreeing with the above idea, the ONEC (2001) also asserts that the knowledge needs of the country cannot be tackled by the knowledge produced following the traditional disciplinary lines. Agreeing with this, the OEC (2003a) states that economic and social activities outside academia are too complex, in which trans-disciplinary knowledge is vital and more practical than traditional disciplinary-led activities.

Consistent with the policies adopted in Thailand above, Arbo and Benneworth (2007) and Harloe and Perry (2004) recommend that the building of a knowledge-based society requires 'trans-disciplinary' or 'inter-disciplinary' production of knowledge, which is the conjunction of diverse sciences, natural and societal. University roles should rather involve a wider context than technology transfer and innovation, with regard to the complex economic and social needs in the 'real-world' context (Steiner and Posch, 2006).

However, despite an increased emphasis on the multi- or trans-disciplinary culture, often referred to as the 'Mode 2' knowledge production (Gibbons *et al.*, 1994), a study conducted by Schiller (2006a) shows that interdisciplinary is difficult to arrange within the current organisational environment of Thai universities, due to the disciplinary-led structure of faculties having dominated the academic culture and connections between individuals throughout the university historical development. As mentioned earlier, Intarakumnerd (2006) finds that a very slow self-adjustment of academic personnel is a constraining factor of the IS transition in Thailand.

Considering this body of the literature, it is suggested that the disciplinary arrangement within universities is included as an investigative aspect of this study; academic practices within the disciplinary-led structure are to be examined

bearing in mind that the inter-disciplinary activities is recommended, by both government documents and the literature, for academic services in the KE context.

2.5.4 BASIC OR APPLIED SCIENCE

Bearing in mind that the traditional academic heartland is disciplinary-led, academics with similar areas of interest share similar values and goals of their intellectual work, mainly with regard to their mainstream teaching and research (Livingston, 1974). However, taking into account several approaches to the KE discussed earlier, interdisciplinary activity has become another significant culture of academic work. Considering this point, one question to be addressed concerns the way in which individual academics choose to perform service work as either discipline-led or interdisciplinary.

Basic science is preferred by discipline-led innovation systems such as 'Mode 1', the triple-helix, and the cluster. For instance, Etzkowitz *et al.* (2000) assert that the knowledge production in universities is always in need of a learning economy, although other specialised organisational firms, such as consulting firms and private research laboratories, are present within the system. This is because not all knowledge can be commercialised, particularly the basic sciences that have not yet been regarded as attractive in terms of the economic value of their knowledge production (Etzkowitz *et al.*, 2000; Laredo, 2007; NESDB and World Bank, 2008). Agreeing with this, the study of Audretsch and Lehmann (2005) confirm that regional entities, particularly firms in high-tech industries, within geographic proximity surrounding one university can take advantage of knowledge spillover. They (Audretsch and Lehmann, 2005) find that these firms can make use of the knowledge for their operation through either regional based scientific publications or the knowledge embodied in students graduating from the university.

Unlike basic science, applied science may be undertaken as both by disciplinary-led and interdisciplinary. This is discerned from several innovation systems such as 'Mode 2' and engaged universities. Regarded as a good example, the study of Steiner and Posch (2006) of sustainable development of regions demonstrates the way in which interdisciplinary is used for solving complex real world problems of the region[5]. Based on the research finding, they (Steiner and Posch, 2006, p.889) conclude that the role of academics in the interdisciplinary service 'is not only to provide solutions, but also to outline and define problems of which the stakeholders may not be aware'.

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[5]The empirical analysis presented in the study is based on multiple case studies carried out in the regions of Erzherzog Johann and Eisenerz in Austria.

Notwithstanding the above cases, the boundary between basic and applied science is not a solid line. While basic science provides society with advanced creativity, applied science helps make the application of it. This body of the literature suggests that, in order to investigate academic roles in the RIS, the knowledge service in the forms of basic and applied science are both required to solve real world problems, depending on the needs of knowledge stakeholders, either for the intellectual creativity or the application of it.

2.5.5   FORMAL OR INFORMAL SERVICE

As discussed previously, connections with outside entities is another essential part of service activity. Connections between academic staff and regional entities can be made on either a personal or institutional basis. Connections made on an institutional basis are seen as 'formal channels' (Gunasekara, 2006c) or 'systematic channels' of connection (OECD, 2007). These connections are made with the institutional recognition, and of which systematic records of the activities are made. On the other hand, connections made on personal basis are equated to an 'informal basis', which Boucher *et al.* (2003, p.894) argue often makes academic engagement with the region 'less clear-cut and less visible, although not of less importance'. In either case, Gunasekara (2006a) recommends that university leaders promote both formal and informal linkages between the university members and outside partners.

2.5.6   PUBLIC SERVICE OR PUBLIC SCHOLARSHIP

The range of service activities is broad; some activities are distinct from conventional teaching and research activities, some are harmonised, whereas some are integrated. In terms of the epistemology of academic staff playing roles, these broad activities are founded as being involved with either the 'public service' or 'public scholarship' paradigm. The behaviour of academic staff making the choice of time devoted to service activities is assumed to be underpinned by either of these paradigms.

2.5.6.1   *Public Service*

According to Colbeck (2002), although several attempts have been made to redefine academic work, the domains of teaching, research and service are intuitively seen as separate because activities carried out by academic staff are often categorized among the three. As evidenced by a survey conducted by

Teerajarmorn *et al.* (2003) in Thai universities, to make sense of the work this way appears to devalue the service work since the other two domains always attract more attention of the academic.

The above study is reinforced by Colbeck and Wharton-Michael (2006a) who point out that teaching is usually a primary responsibility and research is the key indicator for academic promotion. Concerned by the threat of separate catalogues, Boyer (1996, p.22) pointed out 'the harsh truth' of service being hardly mentioned. Agreeing with this, Holland (1997) finds that public service is often conceived and perceived as presenting less intellectual value in terms of the academic professoriate.

To overcome the weak point of typical separated academic work, some literature on the roles of universities in their regions emphasises the advantage of 'community service' or 'public service' being harmonised with or integrated with the mainstream activities of teaching and research. For instance, Chatterton and Goddard (2000, p.482) suggest that universities develop their internal mechanisms to promote the integration of teaching, research and service to the regional community as part of the learning system of a learning region (Figure 2.18); they claim that this would help create teaching-related and research-related drivers to greater regional engagement.

FIGURE 2.18: Integration of Academic Work in the Learning Region
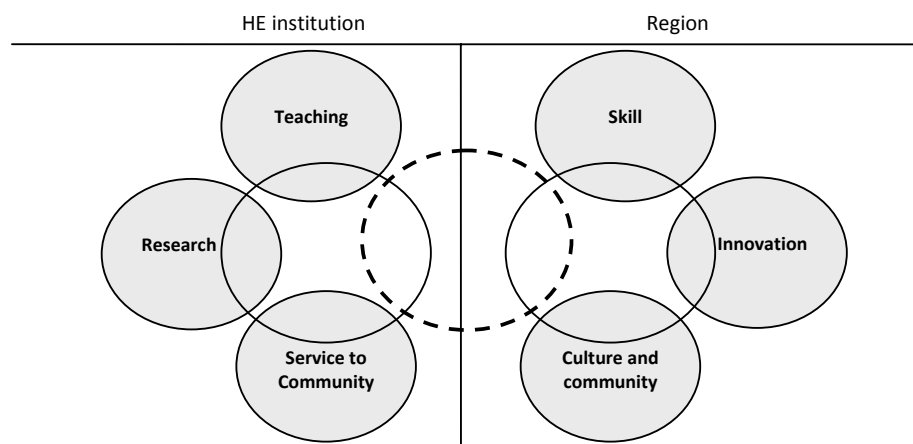
Source: Goddard and Chatterton (1999, p.689).

An OECD (1999) report is another robust publication on the utilisation of the teaching and research domains for the adoption of regional engagement in universities. The OECD (1999, pp.99–102) summarises teaching-related and research-related drivers and barriers of various dimensions concerning the

university fulfilling the regional engagement. That is, for those in accord with the dimension of academic involvement, one of the key drivers for teaching-related work is an increased opportunity for direct contact between the academics and regional professionals and firms as professional courses are conducted in addition to conventional classroom teaching. Another key driver, as also pointed out by Jongbloed and Vossensteyn (2001), is in accord with several sources of research funding and regional support and collaborations for policy-based research.

2.5.6.2 *Public Scholarship*

Public scholarship is not the activity of public service, community service, outreach, or service learning (Colbeck and Wharton-Michael, 2006b; Yapa, 2006). The primary distinction between public service and public scholarship concerns the epistemology of academic staff addressing the knowledge needs of society (Colbeck and Wharton-Michael, 2006b). Bearing in mind that the conventional three labels of academic work are teaching, research and service, activities that convey the dissemination of knowledge outflow from the university to the public can be regarded as public service, regardless of the activities being performed as distinct from, harmonised with, or integrated into the strands of teaching and research activity.

In contrast, Yapa (2006) points out that academic staff believing in public scholarship conceive that knowledge is constructed in the application context whereby the beneficiaries of new knowledge are both academia and the larger community. In this sense, the entities (locals, firms, other knowledge institutions) of the community are 'partners in the generation of new knowledge' rather than the receiver of new knowledge (Yapa, 2006, p.83). This is reinforced by Weertz and Sandmann (2008, p.74) who find that traditional public service is a 'one way' approach to delivering knowledge and service to the public. They (Weertz and Sandmann, 2008) also support Boyer's (1996) scholarship of engagement to be regarded as the new 'two-way' interactive approach to address societal needs.

Furthermore, public scholarship prefers the integration of academic activities whereby teaching, research and service are not to be disintegrated while academic staff devote their work to public benefits. By considering this point, Colbeck and Wharton-Michael (2006a) view public scholarship as the reintegration of Boyer's four domains of scholarship (teaching, discovery, integration, application); they picture the public scholarship of the academic work as (p.18):

'...a whole cloth, with threads of service, research, and teaching. The substance and meaning of the whole of academic work emerge only as the forms of intellectual activity inform and enrich each other, even as patterns and textures of tapestries depend on how various threads are woven together.'

2.5.6.3 *Service and the Mainstream Teaching and Research*

By making a comparison, as illustrated in Figure 2.19, it can be seen that the key similarity is that the two paradigms prefer academic service to be connected to the mainstream teaching and research activities, notwithstanding the conventional three labels of academic work indicating teaching, research and service as distinct activities and the forms of work evaluation are often developed following this distinction (for instance, see a study on the evaluation of Thai academic work in Teerajarmorn *et al.*, 2003).

FIGURE 2.19: Public Service and Public Scholarship
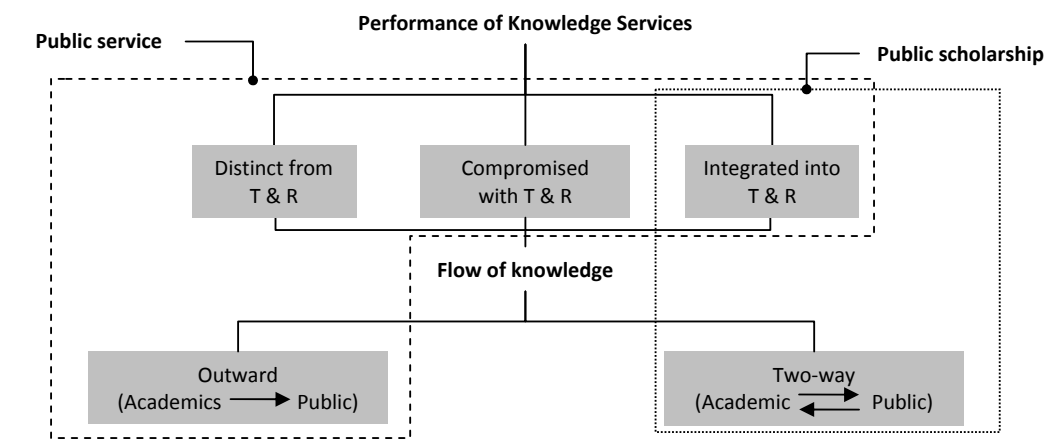
Note: T = Teaching, R = Research.
Source: developed by the author.

The key difference, on the other hand, is that the knowledge developed using the concept of public service is conceived as flowing outwards from the university, considering that universities are the sources of knowledge production and provision, whereas public scholarship prefers a two-way flow; the interaction of inward and outward flows between the university and its region is an ideal for knowledge production and provision following the notion of public scholarship.

Notwithstanding the difference, it is argued that academic service in the RISs concerns not only the service activity itself but also the way in which the work being included as part of the whole academic work, though there is no one correct theory, or pattern, of how these paradigms are to be employed in practice (Eberly,

2006; OEC, 2003a). Additionally, it can be seen that research is highly valued in all the systems whereas teaching is not always regarded as essential[6]; this implies that research is in preference to teaching in most RISs.

Despite the essence of research, Schiller and Liefner (2007, p.554) finds that the average research capabilities of Thai academic staff only range from 'a basic absorptive level' to 'an intermediate level' compared with those in developed countries, which on average present significantly higher standards of academic capabilities. This argument is reinforced by Intarakumnerd *et al.* (2002, p.1445), whose study points out that the NIS implementation in Thailand is started as a 'weak' and 'fragmented' system because of the NIS not linking to its economic structural development level; these researchers argue that one of the identified problems underpinning their result is academic capabilities being 'generally unsatisfactory' (p.1451).

Providing reasons to explain the poor research capabilities of Thai staff, Sinlarat (2004, 2005) finds that Thai academic staff have long been lacking in the ability to produce new knowledge; for decades, their teaching and research activities have relied on the adaptation of knowledge imported from developed systems. Taking these previous studies under consideration, to examine the work of Thai academics in particular, academic capabilities being different from those in the developed system must be taken into consideration.

2.5.7 DILEMMAS OF SERVICE PERFORMANCE

Based on the above discussions, it is discerned that there are no firm rules to indicate the best academic involvement pattern; rather, the involvement depends on the knowledge needs addressed and various dilemmas involving with academic choice of time and resources invested in the service, which can be illustrated as in Figure 2.20:

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[6]See also comparisons across approches to the RISs in Table 2.4 presented earlier (p.44).

FIGURE 2.20: Dilemmas of Service Performance
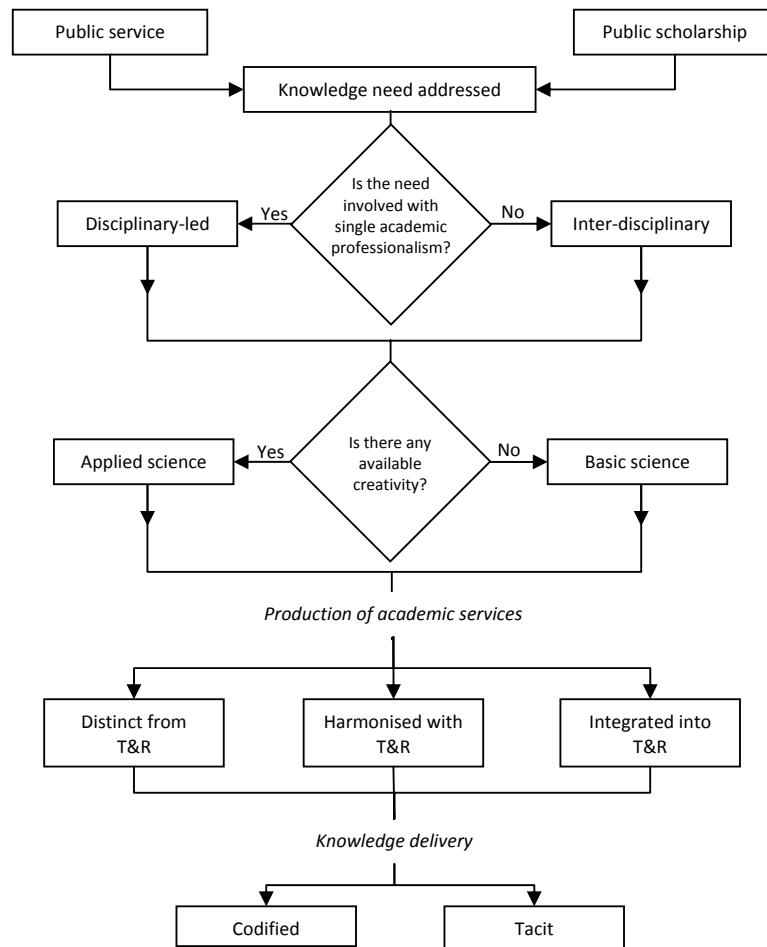
Note: R = Research, T = Teaching.
Source: developed by the author.

As seen in the above Figure, the practicality of individual academic service relies on the way in which knowledge needs are addressed (Metcalfe and Ramlogan, 2005). In order to investigate academic services, the researcher was therefore inclined not only to look for service activities themselves but also to examine in depth the way in which the knowledge needs being addressed along side the dilemmas of service production.

2.6 ISSUES FOR FURTHER INVESTIGATION

As introduced, the researcher initially reviewed the literature to gain local knowledge about Thai HE and essential ideas of the KE concept and its empirical applications. With respect to this purpose, the review of literature and discussions made throughout this chapter eventually led to the formation of three investigatory propositions of the inquiry made into service work of Thai academics. These propositions are provided as follows:

2.6.1 REGIONAL PROFILING

A rhetoric of regional engagement may be adopted by universities but the practical implementation of it is another issue requiring further investigations. Rather than looking at institutional perceptions, the researcher focused on the regional understanding at individual level; she intended to examine what community was understood by academic staff to be **the surrounding region of their university** and to explain how the scope of this community was defined.

2.6.2 INSTITUTIONAL PROFILING

Working in public universities, Thai academic staff were assumed to be influenced by the organisational structure and characteristics of the university for which they worked. With regard to discussions made on the six models of universities participating in the RIS[7], there are attempts to apply these models to explain the roles of university participating in the KE in the Thailand context.

However, no known studies present a perfect fit of explanation; an issue raised and shared by those studies concerns the different contexts of application. Also, this body of literature suggests that Thai universities face the big challenge of designing their own institutional systems.

As another aspect to be considered, institutional context is suggested to vary from one university to another. Furthermore, concerning the academic heartland, the variations can even exist across academic departments in the same university. The researcher was therefore tempted to include multiple universities in the investigation in order to compare **the influences of organisational factors** on the performance of individual staff.

2.6.3 INDIVIDUAL PROFILING

With regard to the characteristics of academic work, different academics might have different work views and values of work performance depending on their qualifications and concerning their disciplinary, professional and academic backgrounds. Taking into account the variations that might affect the way academic staff perform their work, the researcher decided to include diverse academic staff in the investigation. By so doing, she intended to discover **professional variations** in the perceptions and practices of services for the region.

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[7]Discussed previously in Section 2.4.2 (pp.43–45).

2.7 CONCLUSION

This chapter outlined philosophies of knowledge of relevance to academic services at regional level. Also, the historical development of educational transformation towards the KE in Thailand was discussed in comparison to those in developed systems. By so doing, the chapter showed that the KE concept is a foreign notion imported to shape the roles of Thai universities and hence the performance of their academic staff.

Despite realising the essence of further empirical studies, literature on how Thai academic staff make sense of and participate in the KE is very rare, although academic involvement in service is regarded at the policy level as essential for the creation of a knowledge-based economy. Accordingly, to fill this part missing from the literature became the primary aim of this study comprising three investigatory propositions, namely regional, institutional and individual profiling of academic staff.

The next chapter deals with the methodological discussion on the conduct of the investigation.

Chapter 3

RESEARCH METHODOLOGY

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3.0   INTRODUCTION

Given the research question, **'how are academic services at regional level delivered by Thai academics?'**, this chapter deals with philosophical discussions and methodological designs for the investigation, in order that the question is answered. The chapter is divided into five sections. The first section explains the use of a case study approach in clarifying a substantive area of the investigation. The second section discusses philosophical paradigms underpinning the conduct of the study, which eventually lead to the selection of grounded theory as the research method. The third section deals with methodological discussions concerning the use of the ground theory approach. The fourth section explains how research data are analysed. Finally, the fifth section reflects on the research methodology.

3.1   EMPIRICAL SETTING OF THE INQUIRY

Chosen as the investigative background of the study, traditional LAUs present variations in their profiles as well as their locations. The researcher employed a case study **to clarify a specific area of investigation** taking into consideration university operational characteristics and locations (Hammersley and Gomm, 2000). The approach allowed the researcher to cover deliberately the contextual conditions as part of the investigation (Merriam, 2002; Stake, 2000a; Yin, 2009). To explain further, by utilising the case study, the researcher examined regional academic services fulfilled by individual academic staff based on the idea that these staff worked for the university and were surrounded by their region.

3.1.1 CASE STUDY PROPOSITIONS

To design a case study, it is necessary to clarify the study propositions and boundary (Merriam, 2002; Yin, 2003b). The study propositions were particularly necessary for this study, for which no controls of the behavioural events of academic experiences were put in place. By considering the complexity of human experiences, Merriam (2002) states that the study could be too complex and vague without clear propositions of what is to be looked at. Similarly, Yin (2003b) points out that without such a boundary, the researcher might be tempted to cover everything, which is impossible to do.

For this study, as discussed in the previous chapter, there are three domains the inquiry made into the performance of regional academic services:

1. **Regional profiling**: to investigate definitions and territories of the university's region and their significance to academic service performance.

2. **Institutional profiling**: to examine university institutional environments that shape service activities.

3. **Individual profiling**: to investigate academic professional profiles and their impacts on individual perceptions and practices of academic services.

3.1.2 STRUCTURE OF RESEARCH QUESTIONS

Resulting from the discussion of the three study propositions, the researcher was encourgaged to investigate various academic staff with different qualifications and backgrounds from multiple universities located in different areas of the country. Given the initial research question, there were sub-questions structured in accordance with the three propositions (Table 3.1).

TABLE 3.1: Structure of Research Questions
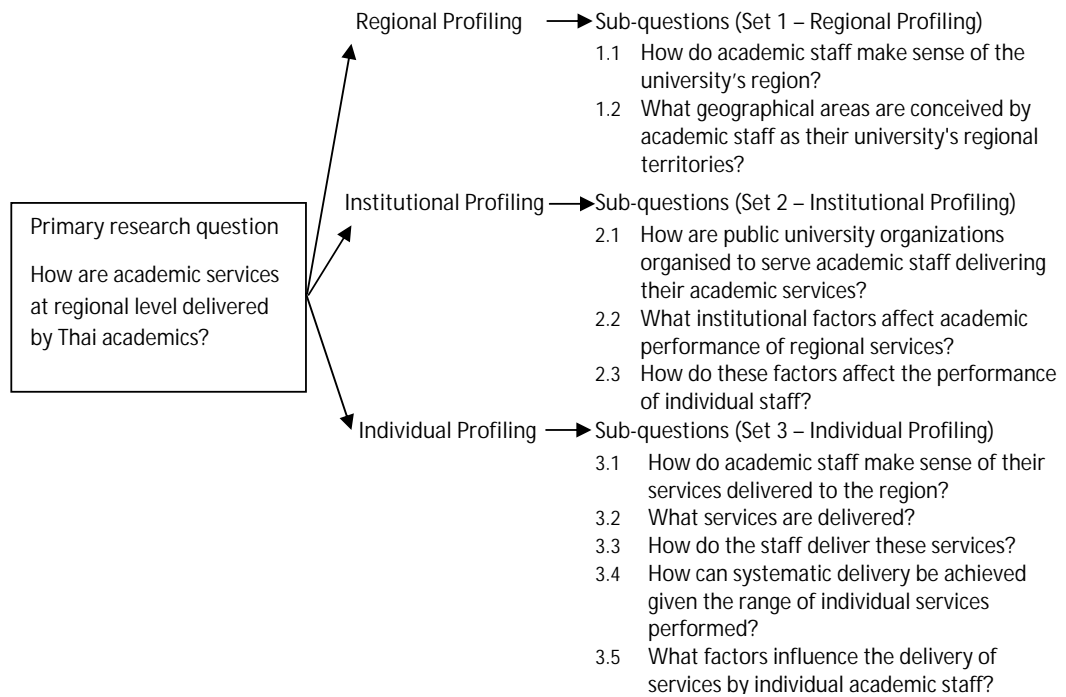
Source: developed by the author.

Lewis (2003) suggests that qualitative researchers have to balance their 'existing ideas' (non-conceptual knowledge) and the 'tentative theories' (conceptual or codified knowledge) about the inquiry. With this in mind, the researcher was therefore supposed to conduct the investigation with an 'open' but not an 'empty' mind.

The first set of sub-questions was in accordance with the first study proposition, regional profiling. Bearing in mind that individual academics tend to be part of multiple levels of the society within which their universities are located (Chatterton and Goddard, 2000), it is therefore firstly required to examine 'how academic staff make sense of the university's region'. In accordance with the understanding of regions, further clarification should be made concerning 'what geographical areas are conceived by academic staff as their university's regional territories'.

The second set of sub-questions was based on the second study proposition, institutional profiling. Similar to the first set of sub-questions, the very first question of this set was built upon existing knowledge; it was local knowledge about the Thai public universities suggesting that 'academic service' was part of these university's main functions. It is therefore essential to examine 'how are public university organisations organised to serve academic staff delivering their

services'. Following the examination of the university organisation, two consequent questions were put forward as 'what institutional factors affect academic performance of regional service?' and 'how do these factors affect the performance of individual staff?'

Finally, the third set of sub-questions was formed upon the third study proposition. The first question was 'how do academic staff make sense of their services delivered to the region?' Again, the first question of the set emerged from existing knowledge; it was general knowledge in the HE area that academic work is complex and that individual academics are likely to perform their work in accordance with their professional goals and profiles (Bolton, 2000; Nelson, 2002). Consequently, four relevant questions were formed in order that systematic deliveries of academic services were examined, including: 'what services are delivered to the region?', 'how do they deliver these services?, "how can systematic delivery be achieved given the range of individual services performed?" and "what factors influence the delivery of services by individual academic staff?"

3.1.3 SELECTION OF RESEARCH SITES

Based upon the range of academic disciplines offered, 22 traditional LAUs are divided into two groups: 18 of them provide a comprehensive range of degree programmes while another four universities mainly conduct programmes in S&T. Academic disciplines in the comprehensive programmes include those in Social Sciences and Humanities, S&T, and Health Sciences. The four S&T universities mainly provide degree programmes in the S&T areas, although some universities also operate programmes in the Social Sciences and Humanities area, but these programmes are a minor part of the university operation.

Bearing in mind that academic staff from various disciplines were to be included in the investigation, the choice of research sites was therefore narrowed down to within the 18 comprehensive universities. The researcher reviewed various publications provided by the CHE and used the official website of each university to research further information, including: the university rank, the university size, the number of students and academic staff, and the campus location and travel information.

Traditional universities are located throughout the country (see also Table 3.2). For the selection of site locations, the researcher chose to include multiple universities from different areas of Thailand in order that locational factors were examined.

TABLE 3.2: Thailand's Political Regions

Region	Provinces	Traditional Universities	Total Area		Length to Coast	Population	Population Density
			(sq.km.)	(percent)	(km.)	(million)	(per sq.km.)
North	17	4[*]	196,644.3	33.1	0	11.7	69.0
South	14	3[*]	70,715.2	13.8	1,672.2	8.8	124.4
Northeast	19	4[*]	168,855.3	32.9	0	21.9	129.7
East	7	1	36,001.1	7.0	514.8	4.4	122.2
Central	18	-	102,336.0	19.9	417.6	10.3	100.6
Bangkok	1	10[*]	1,568.7	0.3	4.4	6.8	4,334.8
Thailand	**76**	**22[**]**	**513,119.5**	**100.0**	**2,614.4**	**65.1**	**129.9**

Note: [*]including 1 autonomous university, [**]including 4 autonomous universities. Central = 18 Central Provinces excluding the Bangkok Metropolis Area, Bangkok = the Bangkok Metropolis, km. = kilometres, sq.km. = square kilometres, the population data as of 2006.
Source: the Commission on Higher Education (OEC, 2006b), Department of Local Administration, Ministry of Interior (MOI, 2008), the National Statistical Office (NSO, 2008), and Office of the Prime minister (OPM, 2008).

Eventually, the researcher selected three universities providing a comprehensive range of academic programmes. These universities were among the leading universities in the Thai HE system[8] preparing to become autonomous, or state-supervised, universities. The selected universities were located in three different areas of the country. They are hereafter referred to as University A, University B and University C.

1. **University A**

   Founded in 1934, the university is the second oldest university in Thailand. This university operates four campuses: two major campuses are in Bangkok and two minor ones are in Lumpang province[9] of the North region and Pattaya City[10] of the East region. As of July 2005, there were 26,934 students enrolled, with more than 95% at the two major campuses in Bangkok; the total number of academic staff in the academic year was 1,338. Most of the university academic programmes are operated at the Bangkok campuses, where the majority of the academic staff work. To include various academics of the university, the researcher carried out the investigation at the two Bangkok campuses.

2. **University B**

   Founded in 1967, this university was the first public university established in the South region. The university academic programmes are operated at five

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[8]They are among top ten universities of Thailand, as ranked in 2006 by the CHE.

[9]There are 76 provinces in Thailand. Each province consists of several cities, which the unit of each is 'Amphur' (in Thai). Every province, except Bangkok, has an Amphur named 'Muang', where the central administration of the province is seated. In this thesis, when a province name is mentioned as the university location, it means the university campus is located in the Muang city of the province.

[10]Pattaya is a big city of Chonburi province but not the city where the central administration of the province is seated.

campuses in different locations throughout the South: Hat Yai[11] city, Pattanee province, Phuket province, Surat Thani province and Trang province. The total number of students enrolled as of July 2005 was 31,647 and the total number of academic staff was 1,707. Notwithstanding that academic programmes are operated throughout the five campuses, the majority of these programmes are conducted at the two main campuses in Hat Yai city and Pattanee province; the two campuses operate 252 out of the total of 275 programmes. Looking in detail, the Hat Yai campus is the only campus that provides diverse academic programmes covering all three areas of Social Sciences and Humanities, S&T, and Health Sciences, whereas the other campuses cover only part of these areas. The Hat Yai campus was therefore chosen as the research site for the project.

3. **University C**

Founded in 1964, the university was the first public university established in the North region. The university operates two campuses located in two neighbouring Northern provinces; the main campus is in Chiang Mai province where 99% of the University academic programmes are operated. The other campus is in Lamphun province, a small neighbouring province of Chaing Mai. The total student enrolment as of July 2005 was 27,382 and the total number of academic staff was 2,149. The Chiang Mai campus was chosen as the research site for this project.

As summarised in Table 3.3 below, the selected universities are similar in type, size and rank:

TABLE 3.3: The Three Selected Universities

Basic Profile	University A	University B	University C
Type	Traditional Limited Admission Public Universities		
Academic provision	A comprehensive range of degree programmes		
Highest degree provided	Doctoral		
Rank	Among top ten universities of Thailand[*]		
Size			
Total student enrolment[**]	26,934	31,647	27,382
Total academic staff[**]	1,338	1,707	2,149
Chosen campus	Bangkok	Hat Yai	Chiang Mai
Region[***]	The Central	The South	The North

Note: [*]CHE (2005). [**]Statistics as of 2005. [***] Political region.
Source:developed by the author.

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[11]Hat Yai is a big city of Songkla province but not the city where the central administration of the province is seated.

Also, considering that they are not yet transformed into autonomous universities, their academic management and structures are assumed to be similar since they are traditional LAUs, used to be under the responsibility of the same government authority, namely the former MUA, before the CHE of the MOE was established following the 2002 NEA[12]. When the selection of research sites took place in 2006, these universities were in the final process of proposing their university bill; they were waiting for the parliament to grant them a university autonomy (CHE, 2005).

3.1.4 THE CASE BOUNDED SYSTEM

FIGURE 3.1: The Case Bounded System
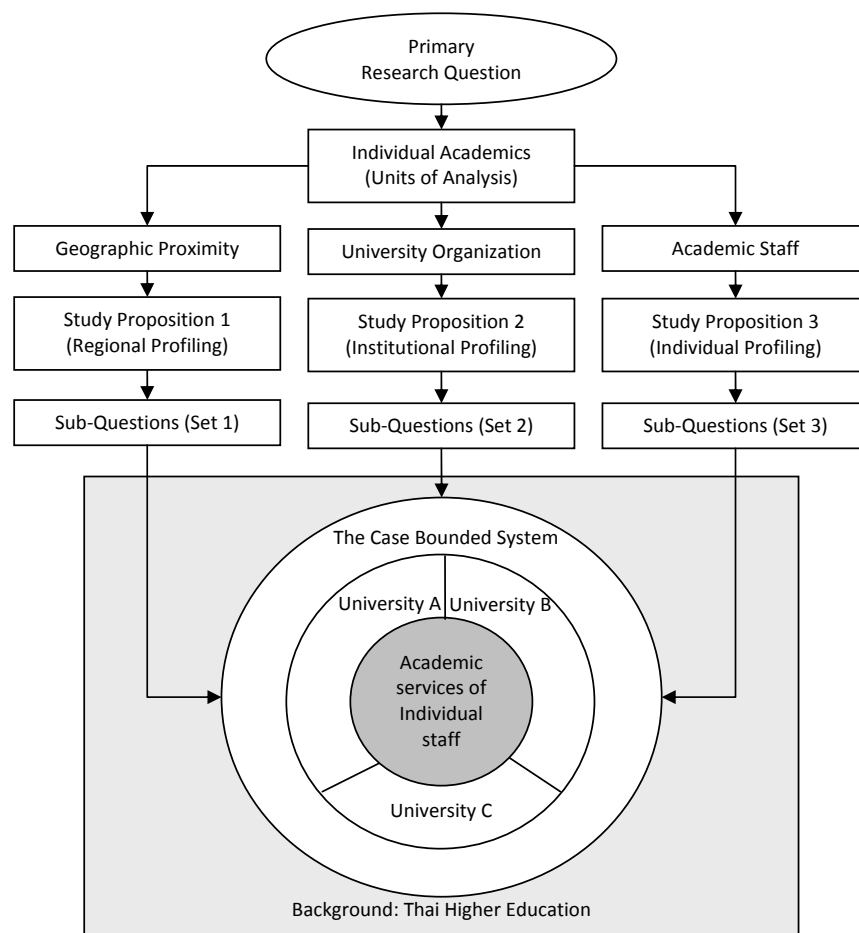
Source: developed by the author.

As illustrated in Figure 3.1 above, the three study propositions helped the researcher to construct the case boundary, also known as 'the bounded context' (Miller, 1998, p.25) and 'the bounded system' (Stake, 2000a, p.23) of the case study. To reflect the study objective, the researcher indicated that **individual academics**

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[12]See also Section 1.3 of Chapter 1 (pp.4–5).

were the units of analysis. In this sense, the work experiences of these academics were to be investigated.

Additionally, despite the fact that the study was carried out in multiple sites, academic staff within the investigation were seen as 'intellectually embraced' (Stake, 2000b, p.455) or 'intrinsically bounded' (Merriam, 2002, p.27) within the case boundary. The case boundary outlines the substantive area of investigation, for which the institutional and regional profiles of the three universities define **the case contextual conditions**.

3.2   PHILOSOPHICAL DISCUSSIONS

Denzin and Lincoln (2008, p.28) illustrate the underpinning principles of social research in the form of 'three interconnected generic activities' (Table 3.4).

TABLE 3.4: Generic Dimensions of Social Inquiry
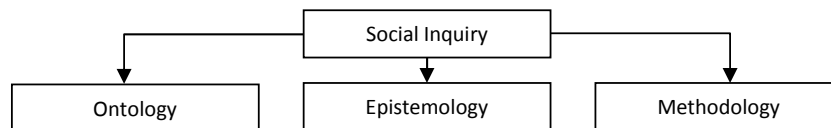
Source: developed by the author after Denzin and Lincoln (2008).

In order to make social inquiries, the researcher 'approaches the world with a set of ideas, a framework (theory, ontology) that specifies a set of questions (epistemology) that he or she then examines in specific ways (methodology/analysis)' (Denzin and Lincoln, 2008, p.28).

Over time, various paradigms of social inquiries have been developed. To conduct social research, it is important that social researchers claim philosophical beliefs underpinning their investigation. Variations of the claim are called by Creswell (2003, chapter 1) as 'alternative knowledge claims'. By philosophically claiming their points, these researchers should, according to Hughes and Sharrock (1995, p.1), be able to explain 'the nature of their appropriate subject matters, their intellectual provenance, their investigative rationales and, above all, the nature of their valid and proper methods'. As pointed out by Patton (2002), the conduct of social inquiry normally requires a clarification of philosophical underpinnings comprising ontology, epistemology and methodology. Given the case boundary, or the empirical setting of the investigation, Figure 3.2 outlines philosophical discussions on the conduct of this study:

FIGURE 3.2: Outline of Philosophical Discussions on the Investigation
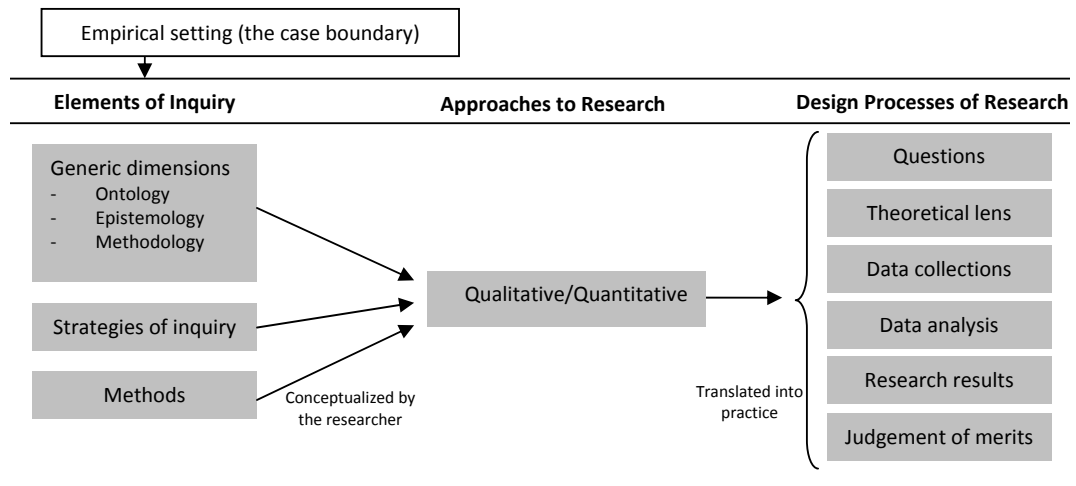
Source: developed by the author, adapted from Patton (2002, p.5) with some materials from Denzin and Lincoln (2008).

3.2.1 DISCUSSING PHILOSOPHICAL UNDERPINNINGS

Rooted in the notion of objectivity, positivism is regarded as the traditional paradigm of social inquiries (Gomm, 2004; Miller, 1998). Easterby-Smith *et al.* (1991, p.22) point out that positivist researchers believe that 'the social world exists externally, and that its properties should be measured through objective methods, rather than being inferred subjectively through sensation, reflection or intuition'.

However, the paradigm is argued as denying the facts of human being, that issues of values and subjectivity are essential when human experiences and their interactions with society are to be looked at (Denzin and Lincoln, 2000). In other words, positivism has 'intrinsic limits' because the social world is inevitably involved with subjects (Corbetta, 2003, p.17). Therefore, it is argued that to look at the social reality as if it were a 'thing' is argued as not appropriate (Guba and Lincoln, 1994).

The impractical implications of the positivist belief leads to the redefinition of positivism, known as post-positivism, which is derived as an attempt to overcome the limits of traditional positivism (Corbetta, 2003). While retaining the positivist underpinning beliefs, Lincoln and Guba (2003) point out that the post-positivist paradigm accepts an imperfect objectivity in social studies. In the field of management research in particular, Chia (2002) claims that realism is a post-positivist paradigm being widely used.

TABLE 3.5: Paradigmatic Controversies of Social Inquiries

Positivism and Post-positivism	Versus	Anti- positivism
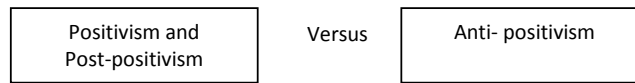
Source: developed by the author.

Contradicting the paradigms rooted from positivism, both positivism and post-positivism, anti-positivist paradigms believe that it is not appropriate, or even possible, to exclude, or attempt to exclude, subjectivity from the study of human experience. In this regard, Denzin and Lincoln (2008, p.18) assert that 'social sciences are normative disciplines, always already embedded in issues of values'.

Accordingly, taking into account the issues of values, anti-positivism tradition accounts for the reality of human values as part of the human being. In the light of this, this social philosophical stance is claimed as not logically derived from positivism in any way (Easterby-Smith *et al.*, 1991). Furthermore, anti-positivism is seen as 'a much more diversified and heterogeneous trend' than positivism (Von Wright, 1993, p.10).

It is discerned that the debates regarding how human experience is to be studied concern the involvement of values in the study. For this study, values of both the researcher and the academic staff involved in the investigation were acknowledged to significantly influence the understanding of the investigated academic experiences; it was therefore put on an anti-positivist stance.

To explain further, initially, the researcher's values were involved in clarifying the case propositions leading to the specification of the case boundary. In the light of these propositions clarified, the boundary was specified in accordance with the researcher's beliefs of what was to be learnt from the work experience of Thai academic staff (Denzin and Lincoln, 2008; Stake, 2008). In other words, by employing the case study, 'a personal contact is drawn between researcher and phenomenon' regarding the experiences of academic staff under the investigation (Stake, 2008, p.126); the researcher regarded these staff as 'a subject', with their actions believed to be inevitably involved with subjective beliefs and values. Given this epistemological position, the selection of the investigation strategy is discussed next.

3.2.2 STRATEGIES OF INQUIRY: QUALITATIVE OR QUANTITATIVE RESEARCH

There are two groups of investigative strategies for social inquiries, namely qualitative and quantitative. Denzin and Lincoln (2008, pp.13–17, after Becker, 1996) point out that qualitative research differs from quantitative research in five dimensions of social inquiry: ontology, epistemology, research design, significance of context and production of results. Figure 3.3 illustrates comparisons between the two strategies:

FIGURE 3.3: Qualitative and Quantitative Research

Quantitative Research	Dimensions	Qualitative Research
Rooted from positivist or post-positivist paradigms	**Ontology** Uses of positivism and post-positivism	Rooted from anti-positivist paradigms
No acceptance: Objective meaning of the individual's action	**Epistemology** Acceptance of postmodern sensibilities	Acceptance: Subjective meaning of the individual's action
Inferential empirical methods	**Research Design** Capturing the individual's point of view	Interpretive empirical methods
Context-free	**Significance of Context** Examining the constraints of everyday life	Context-oriented
Static design, Quantifiable, Logic of causation	**Production of Results** Securing rich descriptions	Mutual simultaneous shaping of factors, Specificity, Logic of classification

Source: developed by the author with some materials from Corbetta (2003, p.37), Creswell (1994, p.5) and Denzin and Lincoln (2008, pp.13–17).

The first dimension of difference involves the use of positivism and post-positivism. Quantitative research is claimed to be rooted from positivism and post-positivism whereas qualitative research tends to support anti-positivist paradigms.

The second dimension concerns the acceptance of post-modern sensibilities. Quantitative studies are detached from sensibility whereas qualitative ones are attached to it.

The third dimension is about social researchers capturing the individual's point of view; quantitative researchers seldom study the view directly as they look for possibilities of derived views from randomly selected individuals. Qualitative researchers, on the other hand, seek to directly approach the view.

The fourth dimension deals with the examination of constraints, or context, of everyday life. That is, while quantitative investigations are carried out as context-free, qualitative investigations are context-oriented.

Finally, the fifth dimension is about the way in which the rich description of social inquiry is secured; quantitative research tends to report the meaning of an individual's action in the form of 'static design' whereas 'mutual simultaneous shaping of factors' is often founded in qualitative research (Creswell, 1994, p.5).

Considering the above comparisons, however, Denzin and Lincoln (2008) state that it does not mean that all qualitative research shares the same assumptions about these points. By the same token, it cannot be claimed that all quantitative research shares the same assumptions of all points. To explain further, these assumptions only help to separate the two approaches of carrying out social investigation; quantitative studies are not likely to believe, or even value, qualitative assumptions and *vice versa*.

3.2.3 CHOOSING THE QUALITATIVE METHOD OF INQUIRY

In order to examine multifaceted academic experiences, the researcher decided to conduct the study qualitatively. The use of the qualitative approach for this purpose is in agreement with Glaser (1992, p.12) who asserts that one may employ qualitative research to 'uncover the nature of people's actions and experiences and perspectives'. Implicit in this, the researcher did not opt for the quantitative approach because of its deductive, or theory-led, nature; this approach was believed to delimit the 'exploratory' answers of the research inquiry made into academic work, which literature suggests is a form of complex work (Denzin and Lincoln, 2008).

The choice of carrying out this research qualitatively 'privileges no single methodological practice over another' (Denzin and Lincoln, 2000, p.7); a qualitative approach was considered as most suitable for the purpose of the study seeking to discover an in-depth understanding of Thai academic experiences. To be precise, the qualitative method was utilised to help the researcher make sense of the work performed by Thai academics, rather than to measure work performance.

3.2.3.1 Choosing the Epistemological Stance

According to Punch (1998, p.139), the label qualitative research is an 'umbrella term that encompasses enormous variety'; it comprises various philosophical orientations. Philosophical variations of qualitative research are related to historical debates and criticisms about the most appropriate philosophical position from which qualitative methods should be derived (Denzin and Lincoln, 2008; Symon and Cassell, 1998). Nonetheless, Corbetta (2003) and Von Wright (1993) find that most modern qualitative research is rooted in the anti-positivist tradition, in which values and subjectivity are the key concerns. Developed upon subjectivity, qualitative research is seen as 'a site of multiple interpretive practices'; distinctive views are derived concerning the researcher's position as the interpreter of social meaning (Denzin and Lincoln, 2008, pp.8–10).

Denzin and Lincoln (2008, p.29) believe that there are 'only observations socially situated in the worlds of — and between — the observer and the observed'; it is believed that social researchers cannot make sense of human experiences without interpretation. Notwithstanding that the notion is widely agreed with by qualitative social researchers, there are debates concerning different epistemological stances of the interpretive position of the researcher investigating the meaning of social actions. In the field of organisational and educational research, three interpretive paradigms are often discussed; these stances are intepretivism, hermeneutics, and constructivism (Brewerton and Millword, 2001; Hammersley, 2002; Schwandt, 2003). Different perspectives of these paradigms are presented in Table 3.6:

TABLE 3.6: Epistemological Perspectives of Qualitative Research

Perspective	Paradigms		
	Interpretivism	**Hermeneutics**	**Constructivism**
Aim of interpretation	Subjective meaning of action	Subjective meaning of action	Subjective meaning of action
Interpretive logic	Interpretation = Process of grasping understanding of meaning	Interpretation = Understanding of meaning	Interpretation = Construction of meaning
Researcher's interpretive position	Not affected[*] by the situation	Affected[*] by the situation	Affected[*] by the situation
Researcher's task of interpretation	Observer	Negotiator	Constructor

Note: [*]the term 'affected' refers to the researcher having biases of the studied situation involved in the interpretation.

Source: developed by the author based on Schwandt (2003) and Tashakkori and Teddlie (1998).

It is discerned that the above paradigms share a similar sense of viewing human action as a subjective meaning of action. However, different views towards the degree of 'objectivity' engaged in the process of interpretation cause differences across these paradigms. These differences consequently lead to different views towards the **position** and **task** of the researcher (social interpreter) during the interpretation process and the **kind of understanding** of action of the social actors within the situation (Figure 3.4).

FIGURE 3.4: Different Interpretive Stances of Social Interpreter
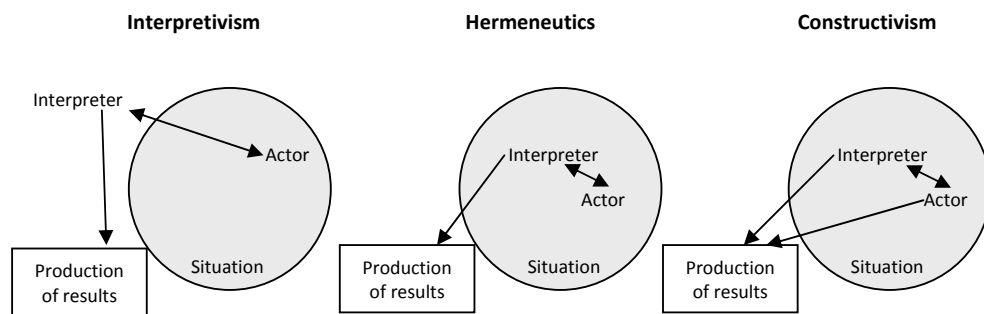
Source: developed by the author.

Among the three paradigms, interpretivism bears the highest degree of objective interpretation. According to Schwandt (2003, p.298), 'interpretivists argue that it is possible to understand the subjective meaning of action ...yet do so in an objective manner'. As illustrated in Figure 3.4 above, while a social actor is technically an 'object' of the investigation, his/her action interacting with the social situation around him/her is believed to be driven by elements of subjectivity (*i.e.* motive, thoughts, beliefs, values, desires). In this sense, the researcher is set aside from the studied situation and produces an understanding of the action as an outside 'observer' not being affected by the situation.

Unlike interpretivism, philosophical hermeneutics has a 'non-objectivist' view of meaning (Schwandt, 2003, p.302). For this paradigm, there is no distinction between interpretation (the process of approaching an understanding) and understanding as the interpretation is itself an understanding of social action. That is, while examining the meaning of action of the other, the researcher must bear his/her own biases about the situation. In this sense, the researcher is seen as a 'negotiator' of social meaning; the researcher's biases are believed to be affected by the studied situation.

Similar to philosophical hermeneutics, constructivism views the world as non-objectivist. However, Charmaz (2006) points out that constructivists are not

set aside from the situation as the researcher's task is to 'take part in the construction' of the subjective meaning of action. The researcher approaches an understanding of the social actor's meaning of action as an insider of the situation. By doing so, the researcher does not 'report' the meaning of action but develops a 'construct' using his/her own subjectivity together with the actor's subjectivity as the resources of meaning construction.

Following the above discussion of paradigms, the researcher chose to interpret the experiences of Thai academic staff using **a constructivist pattern**. Agreeing with Easterby-Smith *et al.* (1991), academic experience (the delivery of regional academic service of individual Thai academics) was subjective, socially constructed and given meaning by people (studied academics and the researcher). This notion is reinforced by Gray (2004) and Tashakkori and Teddlie (1998) who consider that interpretive practices are closely related to constructivism. In this sense, the social meaning of the observed phenomenon, bounded within the case study propositions, was constructed by the researchers and both contributing to the observed giving the meaning of it.

3.2.3.2 *Emic or Etic*

Bearing in mind the case study boundary, the researcher had the choice of interpreting the case phenomena using either 'emic' or 'etic' views. That is, the researcher might either interpret the case from the insider's perspective (emic) or from the outside (etic) (Currall and Towler, 2003; Merriam, 2002).

FIGURE 3.5: Emic and Etic
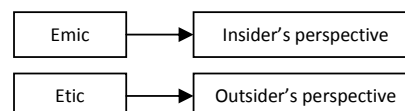
Source: developed by the author.

According to Currall and Towler (2003), the etic view is preferred by research methods derived from the positivist tradition that see the social world as existing externally to the researcher. In this sense, the etic view is claimed to suit quantitative methods seeking to analyse raw data rather than to explore the detailed meaning of human experience, from which the data is derived (Currall and Towler, 2003). Consistent with this, Merriam (2002) points out that the emic view is preferred by qualitative researchers seeking to make sense of the case by sharing their values in the case interpretation.

However, it is not always the case that qualitative researchers are to interpret the meaning of the social world with the emic view. Consistent with this, Miles and Huberman (1994) point out that the etic view can be used by qualitative researchers whose research method is 'variable-oriented'. For these studies, the production of results is tied to an analytic interpretive purpose 'to illuminate the constant, influential, determining factors shaping the course of events' (Miles and Huberman, 1994, p.301). The etic view is therefore not necessarily always derived from the positivist tradition.

For the emic tradition, despite it being recommended by some scholars (*e.g.* Merriam, 2002) as suitable for qualitative social enquiries, Kincheloe and McLaren (2000) claim that the tradition is often blamed for lessening the reliability of the study. To explain, considering that the researcher's biographical experience is blended with the information self-reported by the subjects observed, Kincheloe and McLaren (2000) assert that inter-researcher reliability is difficult to achieve; they claim that different researchers have different accumulated life experiences to permeate the understanding of the world. According to this, it was of concern to the researcher that the lower inter-researcher reliability could lessen the philosophical value of the study.

Accordingly, the researcher decided to interpret the case as from **the outsider's viewpoint**, or the etic. With respect to the choice of the etic view, the researcher intended not to rely on 'existing theories' or 'methodological tools' more than 'the subjective meaning of action' of academics under the investigation and 'the case contextual conditions'.

However, believing in the constructivist notion, the researcher inevitably interwove her understanding of the case phenomenon throughout the case examining processes, by which the case interpretation would eventually reflect not only the case empirical data but also the researcher's view (Denzin and Lincoln, 2008; Hammersley and Atkinson, 2007; Symon and Cassell, 1998). It is therefore a concern that the researcher's view may influence the interpretation of the case studied.

Preferring to minimize the researcher's influence, Gray (2004, p.21) asserts that it is best to 'allow phenomena to "speak for themselves", unadulterated by our preconception'. Agreeing with this, discussions on the search for suitable research tools that meet this criterion are therefore provided next.

3.2.4   SELECTION OF GROUNDED THEORY

In the search for a suitable research method, several approaches were discovered for management research; these approaches included ethnography, grounded theory, case study and action research (Currall and Towler, 2003; Partington, 2002a).

TABLE 3.7: Approaches to Management and Organisational Research

Approach	Investigative focus	Context of happenings	Researcher role
Ethnography	Cultural-oriented	No intervention	Participant
Grounded Theory	Variable-oriented	No intervention	Observer
Case study	Case-oriented	No intervention	Observer
Action research	Action-oriented	Set-up situation	Observer

Source: developed by the author after Miles and Huberman (1994), Partington (2002a,b) and Yin (2003a).

As seen in Table 3.7 above, the key similarity in these approaches in management and organisational research is that not only organisational actors but also their organisational context are included as part of the investigation of social happening within the context (Cassell and Symon, 2004). The key differences, on the other hand, vary depending on the investigative focus of the approach and the role of the researcher involving, or intervening, in the setting of context of happenings under the investigation (Partington, 2002b).

Easterby-Smith *et al.* (1991) state that the philosophy of research design is concerned with the relationship between the data and theory. As the basis for choosing the ideal methodological approach, academic experiences were to be made sense of based on empirical experiences, excluding as much as possible any preconceptions brought into the investigation by the researcher. Implicit in this, the researcher's understanding of the case was to be developed during the research processes, not before. Preferably, no theory was used to guide the case investigation; a theory that explained the case was to be generated according to the case empirical data.

Despite relying on the case empirical data, the researcher did not put the specific empirical context of the case setting in the core of the investigation; rather, the research was variable-oriented whereby variables of academic action, not the holistic happenings of the case setting, are in the central focus. For this reason, case study, which Yin (2003b) claims as a kind of 'research methodology' not just 'a method' being suitable for holistic investigation of specific context of cases, is excluded as a possible choice. For a similar reason, the ethnographic approach is

also excluded. This is because, according to Partington (2002b, p.117), ethnographic findings [from the study of organisations] are always kept within their specific context.

Taking another aspect for choosing the methodology, the investigation needs no intervention of the researcher in the case happenings; action research is therefore excluded because that is intervention in the investigatory setting was essential; as Eden and Huxham (2002, p.254) explain, the findings of action research are 'results from an involvement by the researcher with members of an organisation over a matter that is of genuine concern to them and in which there is an intent by the organisation members to take action based on the intervention'.

Eventually, **grounded theory**[13] (GT) was chosen as the research methodology. Consistent with the choice of investigating the case with an etic view, Miles and Huberman (1994) recommend that this view is suitable for variable-oriented studies whereby relationships of social elements (so-called variables) are in the focus of case interpretation (Table 3.8).

TABLE 3.8: Comparing Variable-oriented and Case-oriented Studies

Variable-oriented	Case-oriented
Categorizing	Contextualising
Analytical	Synthetic
Etic	Emic
Variance theory	Process theory

Source: after Miles and Huberman (1994, p.301).

Using the methodology, the researcher was able to make sense of academic experiences with the potential to minimize the intervention of the researcher's experiences, particularly any preconceptions or theories about the case investigation. Also, any interventions of the researcher in the case setting were not to be carried out.

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[13]Grounded theory methodology is founded by Barney Glaser and Anselm Strauss. It was first introduced as a selection of strategies for qualitative research in their famous book titled 'The Discovery of Grounded Theory', first published in 1967. However, the founders' perspectives towards the GT employment became apart when Strauss and Juliet Corbin, his coeditor of 'Basic of Qualitative Research', published the book in 1990 and introduced the three phases of GT coding — open, axial and selective. Glaser contradicted this coding strategy as he argued, in his book 'Emergence vs Forcing', published in 1992, that Strauss and Corbin's three phases of coding did not obey the principle of GT not to force the emergence of theory; to code the data this way was seen by Glaser as to 'force' the theory to emerge using the researcher's preconceived ideas. Despite ideas of the founders becoming apart, GT is widely used by qualitative researchers whereby the employment of it is unavoidably discussed based on this history. For this research, discussion is provided later in this chapter.

According to Glaser and Strauss (1967), GT is an iterative research approach that allows the researcher to operate social investigation by going back and forth between the data and the generation of theory. This is reinforced by Schwandt (2001, p.131) who indicates that the qualitative researcher may utilise GT as 'the approach to the analysis of qualitative data simultaneously employs techniques of induction, deduction and verification to develop theory'. In a similar sense, Glaser (1978, p.37) provides a definition of the generation of theory in social studies as:

> 'Generating theory and doing a social research are two parts of the same process. How the analyst enters the field to collect the data, his method of collection and codification of the data, his integrating of the categories, generating memos and constructing theory — the full continuum of both the processes of generating theory and of social research — are all guided and integrated by the emerging theory.'

Glaser (1978, p.4) claims that GT is an 'operationalizing methodology' whereby data collection, data analysis and the eventual outcome are interconnected throughout the research process. Following the procedure, the data is eventually conceptualised into a body of theory considered as the study's eventual outcome. The term 'grounded theory' is therefore recognized as both the method of inquiry and the outcome of it (Charmaz, 2000; Glaser, 1978; Strauss and Corbin, 1998b).

Additionally, to generate theory from research data, Strauss and Corbin (1998b, p.22) assert that the theory 'usually is more than a set of findings; it offers an explanation about phenomena'. Similarly, Charmaz (2008) points out that a major strength of GT is that it provides tools for data analysing processes to result in social explanation. In this regard, GT is often recognized as 'a specific mode of inquiry' (Charmaz, 2008) or 'a theory-based analysis approach' (Patton, 2002).

3.3 METHODOLOGICAL DISCUSSIONS: THE GT APPROACH

Deployed as the research method, GT procedure was undertaken throughout the research processes, not just for the purpose of data analysis. The essence of GT, as agreed by Glaser (1992) and Strauss and Corbin (1998b), is to allow the research data to guide the theory development.

In the initial stage of the method, several GT researchers (*e.g.* Dey, 2004; Glaser, 1992; Strauss and Corbin, 1998b) see the research procedure as inductive and open, since no presumptive theories are applied. Then, in the later stage, the GT method involves deductive work concerning the emerging theory, which is derived from 'induced codes' (Glaser, 1978, p.37). The emerging theory then guides where to go

next in order to sample for more data for theory testing (Glaser and Strauss, 1967). Considering these processes, Dey (2004) points out that, until a theory is generated, as it is grounded in the empirical data and no more data collection is required, the inductive and deductive work in the GT procedure may be carried out several times; he sees that GT is a 'flexible and dialectical' research method. This section presents investigative activities using the GT approach (p.83).

3.3.1 MULTIPLE SOURCES OF RESEARCH DATA

Gibbs (2002, p.2) indicates that qualitative data are presented in varieties of form as 'they do include just about any form of human communication' which are not 'counts' and 'measures'. These forms, for instance, include, video recordings, documents, pictures, films, web-pages, ethnographic participant observation, radio and television broadcasting, archives, interview transcripts, memos and research field notes (Gibbs, 2002; Miles and Huberman, 1994). With respect to various forms of qualitative data, Creswell (2007) organises these forms into four basic types: observations, interviews, documents and audiovisual materials.

For theory-building research, which is exploratory by nature, multiple methods are often used to generate and collect data in various forms regarded as social evidence of the investigated phenomenon (Creswell, 2007; Eisenhardt, 2002; Strauss and Corbin, 1998b; Thomas, 2003). Agreeing with this, Patton (2002, p.306) advocates that 'no single source of information can be trusted to provide a comprehensive perspective on the [investigation] program'. The researcher was therefore inclined to employ multiple methods for data generation and collection.

Miles and Huberman (1994, pp.34–36) suggest that the selection and the use of the data collection instrument could, at least initially, be guided by the researcher's 'conceptual framework', 'the research questions' or 'sampling plan'. Bearing in mind the GT approach, the instrumentation of this research could only be guided by the research questions; at this initial planning stage, no conceptual frameworks or sampling plans were yet developed. Accordingly, the choice of instrumentation was undertaken using a 'little prior instrumentation' approach, which Miles and Huberman (1994, p.35) view as 'context stripped' as the researcher was not 'blind to the site'.

At this stage, the researcher knew the investigation context with the known 'where' to obtained the data, as the site selection and case boundary were already designed. Also, despite no knowing the specific 'what form' research data and 'from whom' the data were to be collected, the researcher was given a direction by

the research questions and the context that 'local information' of the case boundary and 'perceptions and experiences of individual academics' were the targeted research data.

With the above specific type of research data, consideration of the desired forms of research data was made across four categories of qualitative data (Creswell, 2007) (Table 3.9).

TABLE 3.9: Forms of Qualitative Data

		Forms of Data			
	Instrumentation Actions	**Interviews**	**Documents**	**Observations**	**Audiovisual Materials**
1	Researcher's control over data generation	Yes[*]	No	No	No
2	Gaining generative data	Yes[*]	No	Yes[*]	No
3	Live phenomenon participation Required	No	No	Yes	No
4	Access to data source required	Yes	Yes	Yes	Yes
5	Contact with live informants required	Yes	No	Yes	No
6	Storage of collected data	Yes	Yes	Yes	Limited[**]
7	Retrieval of collected data	Yes	Yes	Yes	Limited[**]

Note: [*]varies among different types of the data collection method, [**] depends on technology and intellectual property right of the data source.
Source: developed by the author after Creswell (2007), Luders (2004) and Miles and Huberman (1994).

While requiring some control over the way in which the data was generated and collected, the researcher also needed to leave sufficient room for generative data. Additionally, the convenience of the researcher gaining access, storing and retrieving data was regarded as essential. As a result, **interviews** and **documents** were chosen as the two forms of research data. The choices made were consistent with Creswell (2007) as he suggests that, for GT studies of human experiences, interviews play a central role in data generation and collection, whereas other forms of research data, such as observations and documents, are usually needed to play a secondary role in order to help develop the theory.

However, different views about how to use multiple data sources have developed (Figure 3.6).

FIGURE 3.6: Using Multiple Sources of Research Data
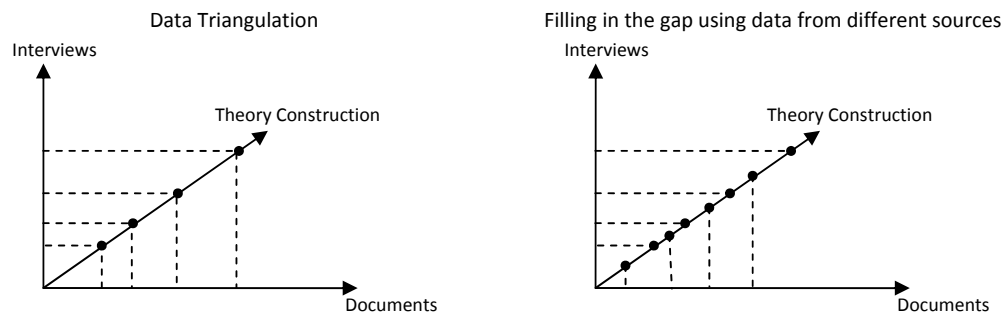
Source: developed by the author.

In one sense, the researcher may use them to triangulate the research findings. By doing so, different forms of data are used to check against the accuracy of each other. As recommended by several scholars (*e.g.* Lansisalmi *et al.*, 2004; Patton, 2002; Stake, 2008; Strauss and Corbin, 1998b), this strategy is believed to increase the validity and accuracy of the research outcome . Arguing with this idea, Mason (2006) contradicted the use of triangulation in this way; she argues that to have matching answers does not necessarily indicate the right answer to the question. Furthermore, to examine the repetition of findings is claimed as relying too much on the positivist tradition. Contrary to positivist beliefs, social realities are believed to be subjective; it is not likely that they are validated and verified by the repeatability of observations (Hammersley and Atkinson, 2007).

In another pattern of using multiple data sources, according to Currall and Towler (2003) and Glaser (1992), each source is used to fill in the gaps of social interpretation, which one data source is unable to do. The researcher supports this idea. By doing so, empirical evidence obtained would be treated as building blocks of theory (Strauss and Corbin, 1998b). Furthermore, as agreed by Golafshani (2003) and Mason (2006), different social evidence was not to be checked against each other, when any inconsistencies would be judged as invalid; rather, reasons underpinning the inconsistencies would be examined.

3.3.1.1   Interviews

Interviews differ in terms of their flexibility, specificity and standardisation of interaction between the interviewer and the respondents (Corbetta, 2003; Kumar, 2005). Interviews are often classified into three types: structured, semi-structured, and unstructured interviews (Figure 3.7). Each of the types serves different data collection purposes, that Kumar (2005) recommends that the choice of interview type depends on the study objective.

FIGURE 3.7: Types of Interview

Type of Interview		Predetermination
Structured Interview	→	Topic, Contents and Form of Interview
Semi-Structured Interview	→	Topic and Contents
Non-Structured Interview	→	Topic
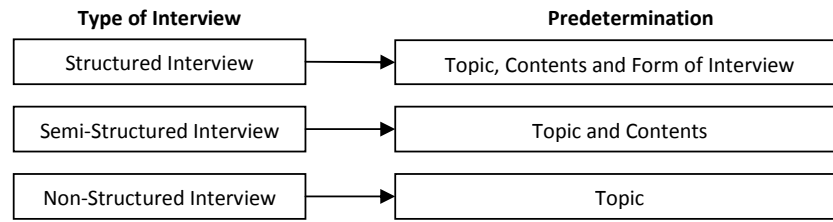
Source: developed by the author with some materials from Corbetta (2003, pp.267–274).

Structured interviews are conducted with a set of standardized questions. According to Patton (2002, chapter 7), there are two types of question used in this interview type; one is 'closed fixed response' and the other is 'standardized open-ended'. The former type is normally used in structure interviews, which Bryman (2004) and Oppenheim (2005) point out that they are normally used as a replacement for self-completion questionnaires in quantitative studies. In other word, the interview is used when interaction between the interviewer and the respondent is required. For instance, when the questionnaire contains complicated questions that may confuse the respondent, the interviewer is required to clarify the questions. Furthermore, Corbetta (2003) finds that structured interviews are used when the investigation involves many aspects. With a limited opportunity to generate new data, structured interviews are not a qualitative data collection method; these interviews do not suit the 'how' and 'why' questions, which are typical qualitative questions (Bryman, 2004; Corbetta, 2003; Merriam, 2002).

The other two types of interviews, semi-structured and unstructured interviews, are used as qualitative data collection methods. Corbetta (2003) points out that their similarity is that they are both in-depth interviews intending to encourage data generation. These interviews are flexible instruments (Bryman, 2004; Merriam, 2002). The differences between them are the predomination of content and the form of the interview questions. That is, in semi-structure interviews, also known as the interview guide approach (Patton, 1982), the researcher predetermines the content but not the form of the interview; despite predetermined questions, the order of questions and interview conversation may vary from one respondent to another. In an unstructured interview, Corbetta (2003) states that neither the content nor the form of interview is predetermined; there is only a given topic that guides the interview conversation.

Bearing in mind the case boundedness, the scope of data collection was specified. **Semi-structured interviews** were chosen as the data collection instrument. To use this method, the researcher intended to gain generative data within the

questioning framework, developed upon the case propositions. Although interviews could be carried out using either a face-to-face or over-the-phone method, the researcher chose **face-to-face** interviews. According to Corbetta (2003) and Rapley (2004), this method helps promote an interactive environment in the interview session. A digital voice recorder was used as the recording device.

Patton (1982, p.167) points out several strengths of semi-structured interviews, including: the comprehensiveness of the data obtained, the fairly systematic collection of the data, and data characteristics that remain 'fairly conversational and situational'. However, discussing the weakness of semi-structured interviews, he (Patton, 1982) claims that the flexibility of sequencing and wording of interview questions may cause different responses; this may consequently reduce the comparability across the interviews. Additionally, Currall and Towler (2003) state that the use of open-ended questions may cause difficulty in data measurement precision due to different participants being allowed to provide information using their own terms and understanding.

3.3.1.2 Documents

Non-professional documents were used in this study for two reasons: one was to provide local and general information about Thailand and the Thai HE system and the other was their use as the secondary source of research data. Unlike research reports, or professional literature, the non-professional documents were regarded as 'pure descriptions of various sorts with virtually no or minimal conceptualizations' (Glaser, 1992, pp.36–37). Bearing in mind the three domains of inquiry, various institutional documents[14] were used as secondary sources of research data complementary to the interviews.

Compared with research data obtained from interviews, documents provided less reality and reactivity between the researcher and the informants (Corbetta, 2003; Patton, 2002). The researcher collected documentary data from various forms of documents including publications, newsletters, institutional journals, visual-audio documentary, reports and organisational websites. Agreeing with Corbetta (2003, p.297), the was found that institutional documents provided 'empirical material for the study of innumerable phenomena' relevant to the inquiry made into the case setting. Considered as the records of institutional activities, institutional documents conveyed social traces of the institution to which they referred (Prior, 2004).

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[14]Summary of these documents is presented in Appendix A.

However, it is important to note that institutional documents were produced using some 'rules of action' concerning the purpose of the document production (Prior, 2004, p.382). With regard to the influence of the institutional nature on document production, Prior (2004, p.382) claims that 'documents often are not objective representations of the institutional reality … but instead provide an "official representation" of it'.

Furthermore, institutional documents were produced from the institutional dimension, not the personal dimension of an individual (Kumar, 2005); the use of institutional documents therefore mainly served the investigation by their contribution to the institutional and regional profiling, rather than the individual profiling of Thai academics, which were the central units of analysis of this research.

3.3.2 THEORETICAL SAMPLING

GT is differentiated from both typical verificational hypothesis-testing studies and exploratory studies without such a theory. Glaser (1992) explains that the difference between the procedure of traditional verificational studies and GT is that the latter has no theoretical framework to guide the collection and analysis of data.

However, later in the procedure when there is a theory 'constructed out of the data' (Glaser, 1992, p.37), a theoretical framework should be developed and used to guide further data collection. According to Dey (2004), this part of the procedure makes GT different from those typical inductive methods; this specific pattern of the role of theory in the research processes is known as theoretical sampling. Glaser and Strauss (1967) claim this as the GT sampling strategy. Concerning its specific way of using theory for the sampling procedure, several scholars (*e.g.* Bryman, 2004; Patton, 2002; Punch, 1998) classify this sampling strategy as a kind of purposeful sampling strategy. The theoretical sampling processes adopted in this study are as illustrated in Figure 3.8:

FIGURE 3.8: Theoretical Sampling
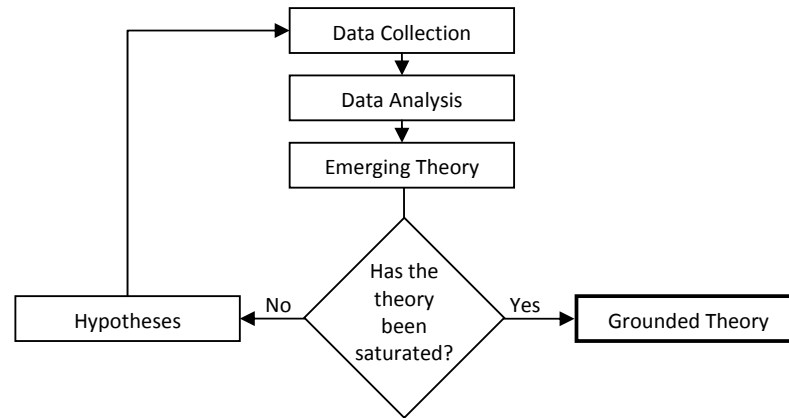
Source: developed by the author after Glaser and Strauss (1967).

Bearing in mind that there are no preconceived theories, Dey (2004) points out that initial data collection in theoretical sampling may be problematic; there are distinct views concerning the process of initial data collection. In one sense, GT researchers are advised to enter the investigation with no professional knowledge relating to the investigation area; the researcher carries out initial sampling for the data collection by utilising only general local knowledge about the area (Corbin and Holt, 2005; Glaser and Strauss, 1967). In another sense, theoretical sampling is said to be theoretically driven, whether the theory is pre-specified or emerges as the study progresses (Miles and Huberman, 1994). Nonetheless, among these various views, Bryman (2008) asserts that the use of theoretical sampling should have no concerns about representative, quantifying and statistical purposes.

Employing theoretical sampling, the researcher sampled the research data in 'a deliberate way, with some purpose in mind' (Punch, 1998, p.193). To explain this approach, although there were no presumptive theories, the researcher did not start sampling with a blank mind; she carried out an initial sampling with assistance from the case boundaries together with the three case propositions. Developing the case propositions and boundary, the researcher simultaneously undertook two critical actions of qualitative sampling, namely the setting of the 'sampling boundary' and the creation of 'a frame of sampling' (Miles and Huberman, 1994, p.27).

The case boundary provided the sampling boundary; it also helped to clarify the limits of time and means of the investigation. Accordingly, providing the specified sampling boundary, local knowledge about the Thai HE system and public universities was used to create the frame of sampling. In this sense, the theoretical sampling of this research was seen as 'within-case sampling' nested within the

case boundary (Miles and Huberman, 1994, p.20). As pointed out by Miles and Huberman (1994) and Stake (1995), the benefit of the within-case sampling is that relevant data sources are clearly delineated. As a result of the within-case sampling approach, 'within-case data' were accordingly collected to build a theory (Eisenhardt, 2002, pp.13–19). By using this method, the sampling of this research was as outlined in Figure 3.9:

FIGURE 3.9: Within-Case Sampling

Background: Thai Higher Education

Selection of government documents

- The Ministry of Education (MOE),
- The Office of the Prime Minister (OPM)
- The National Economic and Social Development Board (NESDB)
- The National Research Council of Thailand (NRCT)
- The National Statistical Office (NSO)
- The Thailand Development Research Institute (TDRI)
- The Thailand Research Fund (TRF)

Selection of institutional documents

University A's website and documents

University B's website and documents

Selection of interview participants

University C's website and documents

Source: developed by the author.

As seen in Figure 3.9 above, regarded as the primary method of generating and collecting data, the interview participants were selected from within the three case sites, University A, University B and University C. Additionally, as mentioned earlier, the researcher made use of diverse institutional documents, regarded as secondary sources of research data. The searches for relevant documents were made within the sampling boundary whereby various government reports and institutional documents of the three universities were included . These documents provided the researcher with general knowledge about the Thai HE in general and about the three selected universities in particular.

3.3.3 INTERVIEW FIELDWORK

This was a UK-based research project; most of the research processes were conducted in the UK except for the Thailand fieldwork (Table 3.10).

Table 3.10: Interviews Data Collection

2006			2007		
October	November	December	January February		March
Preparation of Interview Materials	**Pilot Interviews**	**Making Invitations for Interview Participation**			**Fieldwork Data Collection**
- Invitation for interview participation - Participant Information Sheet - Consent Form - Interview Questions	- Participant Interviews with 3 Thai academics on study leave at UK universities - Finalising interview questions	- Searching for potential participations - Fieldwork planning	- Sending out Invitations - Arrangement of interview appointments - Finalizing fieldwork plan		- Visit University A in Bangkok - Visit University B in Hat Yai - Visit University C in Chiang Mai
UK					Thailand

Source: developed by the author.

The processes of fieldwork preparation were carried out in the UK, including: the preparation of interview materials and the consent form, the selection of interview participants, the invitations sent to potential participants, pilot interviews and fieldwork planning. These documents were bilingual using the Thai and English languages[15].

3.3.3.1 Pilot Interviews

The quality of semi-structured interviews was affected by three factors: (1) the interviewer's skill, (2) the quality of the questions used in the interview, and (3) the respondent's responses to the interview questions (after Burgess *et al.*, 1994; Currall and Towler, 2003; Lewis, 2003). Among these factors, the researcher had some degree of control only over the first two, whereas the respondent's response was seen as being out of the interviewer's control. In order to ensure a good quality of interview skills and research questions, the researcher carried out three pilot interviews in the UK before starting the Thailand fieldwork. The interview participants were three Thai academics on study leave at UK universities.

The interviews were conducted in Thai to examine the appropriateness and practicality of the interview questions. The purpose of this process was to ensure that the questions were understandable to Thai academics and also able to allow data generation (Yin, 2003b). Following these interviews, a set of interview questions was finalised. Appendix D presents a copy of the interview questions.

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[15]See Appendix D.

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3.3.3.2 Selection of Interview Participants

Thai academic staff can be divided by academic position into four groups: Lecturers, Assistant Professors, Associate Professors, and Full Professors. Newly appointed academic staff start their careers with no academic position; they are initially appointed as a Lecturer. When the Lecturer has worked for the university for sufficient time and has accumulated sufficient academic performance, they will be evaluated for promotion into an academic position.

In the Thai HE system, the hierarchy of academic positions begins with Assistant Professor, then Associate Professor, with Full Professor as the highest position. Divided by academic positions, the numbers of academic staff at the three case sites are presented in Table 3.11:

TABLE 3.11: Academic Staff Numbers by Academic Positions

Academic Positions	University A	University B	University C
Full Processors	16	25	38
Associate Professors	253	291	443
Assistant Professors	379	618	582
Lecturers	690	773	1,086
Total	**1,338**	**1,707**	**2,149**

Source: extracted from 2005 Annual Reports of Universities A, B and C.

The three selected universities are comprehensive universities operating a comprehensive range of academic programmes. Accordingly, academic staff at these universities can be divided by academic disciplines into three groups: Social Sciences and Humanities, S&T, and Health Sciences (Table 3.12).

TABLE 3.12: Academic Staff Numbers by Disciplines

Academic Disciplines	University A	University B	University C
Social Sciences and Humanities	659	491	514
Science and Technology	347	703	667
Health Sciences	332	503	968
Total	**1,338**	**1,707**	**2,149**

Source: 2005 Annual Reports of Universities A, B and C.

Additionally, by searching through academic staff profiles provided on the official websites of the three selected universities, the researcher found that some academics were appointed to administrative positions, whereas some were not. The administrative positions range from departmental level, such as Head of Department, Dean of Faculty, Academic Programme Director and Centre Director,

to senior management levels, which includes Vice President and the University President.

Bearing in mind the purpose of theoretical sampling, the selection of interview participants was expected to cover the diverse characteristics of Thai academics, **not to be representative of the whole population of academic staff** at the three selected universities (Bryman, 2008; Dey, 2004). To ensure a wide range of participants with diverse professional characteristics, the selection criteria for participating academics therefore included academic positions, academic disciplines and administrative positions.

3.3.3.3   *Making Invitations for Interview Participation*

The researcher chose to interview eight participants from each site, 24 in total. The interview fieldwork was scheduled for March 2007, which was in the second academic semester of Thai public universities; this time was chosen to ensure that most academics would not be away from their university.

In the search for potential participants, the researcher used the official websites of University A, University B and University C. The search was made of academic staff profiles, officially provided on the website of each academic department of the three universities. As a result, a collection of potential participants was formed. The researcher consequently emailed these potential participants an invitation for interview participation; the information about the research project was attached. The email addresses were provided on the department websites as the academics' official contact details.

The researcher started making invitations in January 2007; she initially sent 24 invitations and then allowed two weeks waiting for the responses. As a result of the first attempt, 18 invited academics agreed to take part, whereas six refused. A second attempt followed; the researcher searched for another six potential participants. All invitations sent in the second attempt were accepted within the following three weeks, or by the beginning of February 2007. Eventually, fulfilling the selection criteria, 24 academics from diverse academic and professional backgrounds agreed to take part as interview participants (Table 3.13).

TABLE 3.13: The 24 Interview Participants

Research Site	Participant (Anonymous)	Academic Position	Time Qualified in Profession	Gender	Academic Department	Disciplinary Group	Administrative Position
University A	A-1	Professor	24	Male	Law	Social Sciences	Vice President
	A-2	Associate Professor	19	Male	Engineering	S&T	Vice President
	A-3	Associate Professor	14	Female	Business Management	Social Sciences	Programme Director
	A-4	Associate Professor	13	Male	Engineering	S&T	None
	A-5	Assistant Professor	16	Female	Rural Study	Social Sciences	None
	A-6	Assistant Professor	11	Female	Food Science	S&T	None
	A-7	None (Lecturer)	10	Female	Computer Science	S&T	Deputy Dean of Faculty
	A-8	None (Lecturer)	6	Male	Economics	Social Sciences	None
University B	B-1	Associate Professor	29	Male	Medicine	Health Sciences	Vice President
	B-2	Associate Professor	13	Male	Engineering	S&T	Programme Director
	B-3	Associate Professor	25	Male	Earth Science	S&T	Head of Department
	B-4	Associate Professor	29	Female	Organisational Management	Social Sciences	None
	B-5	Assistant Professor	19	Male	Linguistic	Social Sciences	None
	B-6	Assistant Professor	13	Male	Medical Technology	Health Sciences	None
	B-7	None (Lecturer)	10	Female	Maritime Commerce	Social Sciences	None
	B-8	None (Lecturer)	10	Male	Engineering	S&T	None
University C	C-1	Professor	36	Male	Agriculture	S&T	President
	C-2	Associate Professor	29	Male	Medicine	Health Sciences	Vice President
	C-3	Associate Professor	32	Male	Weed Science	S&T	Programme Director
	C-4	Associate Professor	18	Female	Marketing	Social Sciences	Head of Department
	C-5	Assistant Professor	8	Female	Thai Fine Art	Social Sciences	Deputy Dean of Faculty
	C-6	Assistant Professor	12	Male	Anthropology	Social Sciences	None
	C-7	Assistant Professor	16	Male	Industrial Engineering	S&T	None
	C-8	None (Lecturer)	10	Female	Industrial Chemistry	S&T	None

Note: S&T = Science and Technology; the codes representing these interview participants (*e.g.* Participant: A-1) will hereafter be used as the reference to the individual's interview being quoted.

Source: developed by the author.

As seen in Table 3.13 above, the 24 participants comprised five Lecturers, seven Assistant Professors, 10 Associate Professors, and two Full Professors. They were 15 males and nine females. Classified by academic disciplines, 10 participants were from Social Sciences and Humanities, 11 from Science and Technology, and three from Health Sciences. Regarding administrative positions held by the participants, 12 of them held no position, two were Heads of Department, two were Deputy Deans of Faculty, three were Programme Directors, four were Vice Presidents and one was a University President. The Vice Presidents and the University President are positions at senior management level.

As soon as the positive responses were received, the researcher sent the participants interview materials in hard copy, comprising: participant information sheet, interview questions, and consent form. Copies of these materials are presented in Appendix D. Also at this stage, the researcher exchanged emails with each to arrange an appointment for an interview session in March 2007.

3.3.3.4   Fieldwork Data Collection

In March 2007, the researcher visited University A in Bangkok, University B in Hat Yai city, and University C in Chiang Mai province consecutively. All 24 interviews were conducted in Thai to put the participants at ease and to allow them to provide data using their own terms and understanding (Currall and Towler, 2003). Each session took approximately 45–60 minutes. The information obtained from the session covered five topic areas: (1) demographics of the participant, (2) the university they work for, (3) the understanding of region and regional engagement, (4) the performance of academic service work, and (5) the perception of the relevance of the academic service work and its regional impact.

All of the participants not only responded attentively to the interview questions but also generated additional data pertinent to the research topic. Notwithstanding the predetermined set of interview questions, all interviews were carried out flexibly; the questioning order was adaptable depending on the actual response of each individual participant. Additional questions were also applied where appropriate, especially when the respondent raised interesting issues relevant to the research objective. As a result of the interview fieldwork, the researcher obtained multifaceted unstructured conversational data bounded within the case study boundary.

3.3.4 ETHICAL ISSUES

To behave ethically in making inquiries into human behaviour, qualitative researchers are required to have the knowledge of ethical principles (Jones *et al.*, 2006, chapter 8), also known as moral principles (Christians, 2003), and to be able to apply these principles in the real dilemmas of research conduct.

Jones *et al.* (2006) and Kvale (1996) assert that ethical decisions are to arise throughout **the entire research process**. For this research, the researcher did so since the design of the study until the presentation of findings, both published and non-published forms[16]. By doing so, the four features of ethical code included (Christians, 2003, pp.217-219):

1. the use of informed consent;
2. no deception involved;
3. the assurance of participant privacy and confidentiality; and
4. the accuracy of data being processed.

With respect to the ethical code, the researcher was aware that to include interviews with academics as the method of data collection was 'a moral enterprise' involving subjective informants (Kvale, 1996, p.109). The preparation of interview materials, the interview fieldwork and the management of the original raw data collected were carried out in accordance with the University of Southampton ethics guidelines, the primary source of the researcher's knowledge about ethical principles. Also, additional knowledge was sought from social research textbooks (*i.e.* Christians, 2003; Hopf, 2004; Jones *et al.*, 2006; Kvale, 1996; Miles and Huberman, 1994) as well as consulting with the supervisor throughout the research process.

All interviews were conducted as a one-to-one interview in a closed venue, *i.e.* the participant's own office or a meeting room, with no third parties. After the interview data was obtained, the researcher was obligated to retain of the confidentiality and anonymity of all participants. These participants were well informed that the information about them gained during the course of the research would be kept strictly confidential and all results would be anonymous; it would not be possible to identify individual participant's data. Copies of participant information sheet addressing the nature and purposes of the study, research questions and the statement of informed consent, stressing the participant confidentiality assurances, are provided in Appendix D.

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[16]See the researcher's presentations of the work, both published and non-published, in Appendix G.

In addition to individual anonymity, the three selected universities were also anonymously named to protect the privacy of these participants; their workplaces were never to be exposed.

3.4 GROUNDED THEORY ANALYSIS

Goulding (2002, p.53) recognizes the growing and diversified applications of the GT method; she finds that GT processes have largely been concerned with the 'evolutionary development' and 'splintering' of the methodology. That is, there are variations in how the data should be conceptualised into the body of theory. As suggested by Glaser (1992), GT is based on a systematic generation of theory from the data, known as a constant comparative strategy; the purpose of doing so is that the researcher develops a theoretical sensitivity. Consistent with this, Strauss and Corbin (1998b, p.210) point out that the entire process of the GT analysis is a procedure of 'theorizing', which 'entails not only conceiving or intuiting ideas (concepts) but also formulating them into a logical, systematic, and explanatory scheme'.

Believing in the constructivist interpretive tradition, the construction of theory was undertaken using both the research data and the researcher's interpretation; the research data were considered as the 'first order facts' whereas the researcher's interpretive analysis was seen as 'the second order conception' (Miles and Huberman, 1994, p.9). Figure 3.10 helps outline the construction of constructivist GT:

FIGURE 3.10: Construction of Constructivist Grounded Theory
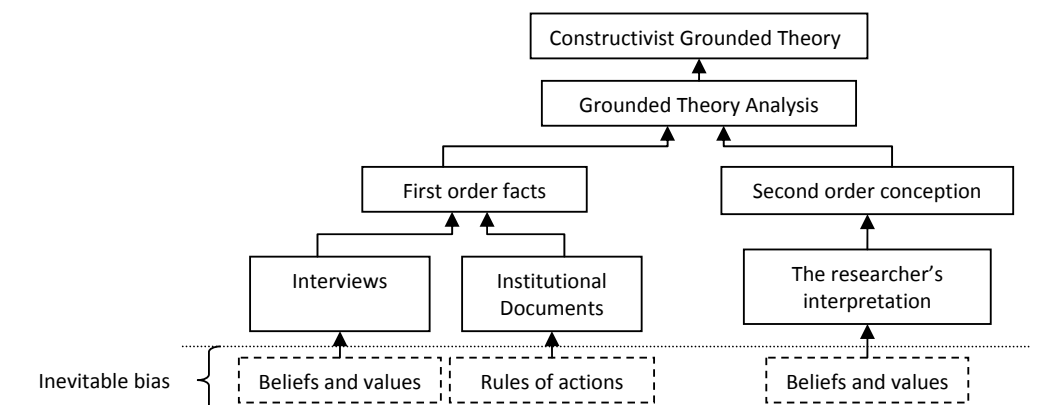
Source: developed by the author with some materials from Charles (2003), Miles and Huberman (1994) and Prior (2004).

Interviews with academic staff and institutional documents are the primary and secondary data sources. It is important to note that English was the primary

language used in this research project. However, as the study was about the work of Thai academic staff, it was inevitably involved with both the English and Thai languages. Also, throughout the research processes, the literature and documents used were in both English and Thai.

Despite the interview materials being bilingual, all interviews were conducted in Thai; also, they were consequently transcribed *verbatim*, using the Thai language, to maintain the terms used and the participants' own understanding of the reporting of their own experiences about the investigated phenomenon (Currall and Towler, 2003).

3.4.1   COMPUTER-ASSISTED APPROACH - USING ATLAS.TI

Qualitative data analysis involves a wide range of clerical tasks , for instance, filing research data, indexing, photocopying, cutting and pasting chunks of text relating to a code, and sorting codes and categories (Bryman, 2008; Dey, 2004; Goulding, 2002). Goulding (2002) finds that doing all these tasks is laborious, time-consuming, and prone to clerical errors. Seeking an efficient method of handling the complexity of GT analysis used for the qualitative data of this study, the researcher decided to use a computer-assisted approach; ATLAS.ti[17] (version 5.2.0) was the chosen computer software package.

ATLAS.ti is a package of CAQDAS software; CAQDAS is the abbreviation for 'computer-assisted qualitative data analysis' (Bryman, 2008; Kelle, 2004) or 'computer-aided qualitative data analysis' (Dey, 2004; Fontana and Frey, 2000; Goulding, 2002). Although the use of a CAQDAS package is not compulsory, a number of researchers (*e.g.* Bryman, 2008; Dembrowski and Hanmer-Lloyd, 1995; Dey, 2004) find it helps tackle the challenge of keeping accurate records of data and codes free from clerical errors and retrieving information during the analysis processes. In this regard, variations of the CAQDAS programme[18] are developed on the 'code-and-retrieve theme' (Bryman, 2008, p.565).

Using ATLAS.ti was only marginal to the tasks of the GT analysis. Goulding (2002, p.94) points out that theory construction is 'a mental activity' where sensitivity to the data conceptualisation is required. As recommended by several authors of research methods text books (*e.g.* Dembrowski and Hanmer-Lloyd, 1995; Goulding, 2002), computers could not take over this role of the researcher. This is

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[17]'ATLAS.ti' is the copyright (1993–2009) of ATLAS.ti Scientific Software Development GmbH, Berlin.

[18]There are various CAQDAS packages available. The two well known are Nvivo and ATLAS.ti. ATLAS.ti. was used in this study. See Bryman (2008, chapter 23) for further details on Nvivo.

reinforced by Dey (2004) and Kelle (2004) who assert that the use of ATLAS.ti therefore has no means of interpretive analysis in the theory development.

Rather, ATLAS.ti. was employed as a project clerk; it followed the researcher's commands to do only non-emotional and non-rational tasks (Flick, 2002). At first, the researcher stored physical records of data and information, including: the interview voice recording device, a hard copy of the interview transcripts, and photocopies of documents and related literature. Then, entering the computer-assisted phase, the researcher developed a system for material preparation, including: inputting, filing and indexing the data. Rather than using filing cabinets and physical index labels, the researcher input, filed and indexed the data using the ATLAS.ti document management unit, known as the hermeneutic unit. The software was compatible with both the English and Thai languages.

For GT analysis, Glaser (1992) indicates that the two essential processes are coding and making constant comparisons. Any properties generated during the procedure, such as codes, categories of codes and the researcher's memos, were provisional as the construction of theory continued. Regarded as the advantage of the software, ATLAS.ti allowed the researcher to conveniently record, retrieve and rearrange the analysis properties as required, concerning the emerging conceptions generated throughout the analysis processes (Dey, 2004).

However, there were also some disadvantages of using the computer-assisted approach. Notwithstanding the software features helping the researcher to accurately and efficiently travel throughout the data and the analysis properties, having to work on a square narrow computer monitor did not help much when complex thinking was required. Furthermore, agreeing with Dey (2004), the researcher found that working with the computer sometimes obscured her creativity. This is due, as pointed out by Dembrowski and Hanmer-Lloyd (1995), to the use of the computer eased the extraction of data from chunks of text which might lead the researcher to overlook the context and overview of the studied phenomenon. Being aware of this, the researcher did not solely rely on using the computer while doing the GT analysis (Figure 3.11).

FIGURE 3.11: Processing an Interview Transcript Using ATLAS.TI
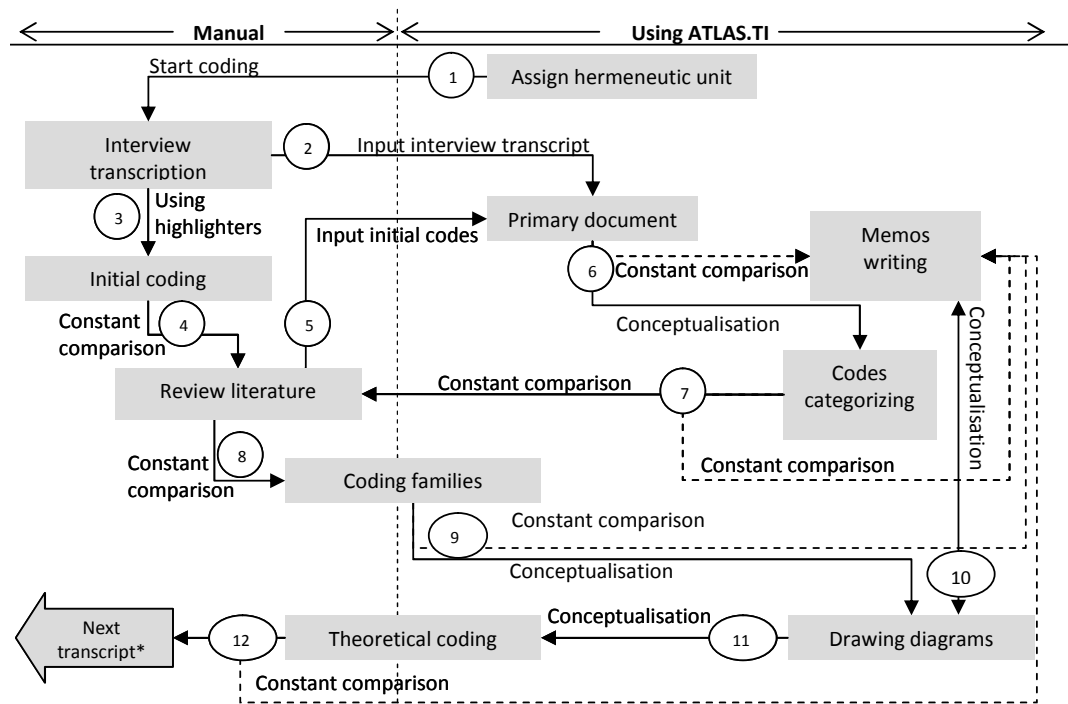
Note: *any coded transcript may be revisited if required.
Source: developed by the author.

As seen in Figure 3.11 above, some very time-consuming tasks were carried out manually; these included: photocopying a pile of interview transcripts and related documents, doing a line-by-line analysis and using highlighters in various colours to mark key things, generating initial codes then inputting them into ATLAS.ti. Even although these were time-consuming activities, they were considered as worth the time spent on them since the researcher gradually became familiar with the data, which consequently was found very useful as her theoretical sensitivity was also developed throughout these slow processes (Glaser, 1992).

The researcher started the data analysis process after the first interview was transcribed. Following this was the transcription of the second interview, the third, and so on. The coding and constant comparisons of the research data and the codes developed were carried out non-linearly across interviews and documents; these data sources were revisited more than once. According to Glaser (1992) and Strauss and Corbin (1998b), the interplay between research data and emerging codes and theory are vital throughout the GT analysis procedure, until the theory reaches its saturation[19].

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[19]The theory saturation of this study will be discussed later in this chapter.

3.4.2   CODING

Coding is essential for GT analysis. A code is considered as data conceptualisation that forms the basis for constructing a theory (Charmaz, 2000; Glaser and Strauss, 1967). Charmaz (2006, p.45) describes the role of coding in GT research as generating 'the bones' of the analysis; she explains that 'theoretical integration will assemble these bones into a working skeleton'. Thus, coding is more than a beginning; it shapes an analytic frame in which the theory is built.

As explained by Punch (1998) and Miles and Huberman (1994), coding is a strategy for systematically organising the detailed and unstructured qualitative data. Punch (1998, p.204) states that 'codes are tags, names, or labels, and coding is therefore the process of putting tags, names or labels against pieces of data'. By labelling segments of data with a code, Charmaz (2006, p.430) finds that the coding process 'simultaneously categorizes, summarises, and accounts for each piece of data'. It is therefore recommended that the researcher remains open to explore concepts, regarded as theoretical possibilities, from the pool of data (Charmaz, 2006; Glaser, 1992).

The researcher coded the data to conceptualise the 'empirical substance' of the case investigation Glaser (1978, p.55). In the coding processes, the assemblage of similar incidents, or empirical facts, was examined for underlying abstracts hidden in the participants' language (Emerson, 2004); any abstract identified consequently became a code (Charmaz, 2006; Glaser, 1992).

Pointing to additional concerns for constructivist grounded researchers, Charmaz (2006, p.47) states that 'coding should inspire us to examine hidden assumptions in our own use of language as well as that of our participants'. The purpose of the coding undertaken was therefore to identify underlying abstract concepts, rather than to report narratively the language used by both the researcher and the participants (Charmaz, 2000; Glaser, 1978). As a result, there are three types of code developed during coding processes, namely: initial codes, categories and theoretical codes (Figure 3.12).

FIGURE 3.12: Analytic Coding Structure
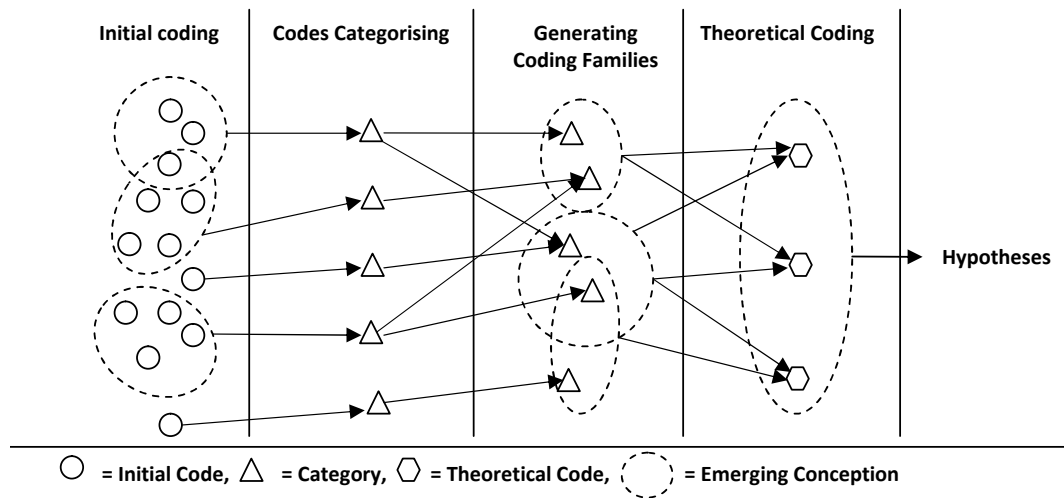
Source: developed by the author after Glaser (1992).

Regarded as the primary language of this project, English terms were used to name codes. Bearing in mind the essence of coding, the researcher was therefore able to analyse and compare the data across sources regardless of the language barrier. These sources included interview transcripts, institutional documents, research papers, articles and reports; some sources were in Thai whereas some were in English[20].

3.4.2.1 Initial Codes

The coding process at the initial stage of data analysis is known as open coding. As explained by various GT researchers (*e.g.* Charmaz, 2006; Glaser, 1978), the codes generated are low-inference and do not yet provide theoretical explanation. By doing open coding, the researcher aimed at 'stimulating ideas rather than documenting evidence' (Dey, 2004, p.85). This coding stage was also considered as the 'data reduction' process whereby a chunk of data was refined (Miles and Huberman, 1994, pp.10–11). Initial codes were assigned to pieces of data, such as a single word, a phrase or a paragraph, using line-by-line and incident-to-incident analysis strategies (Charmaz, 2006; Glaser, 1978). Simultaneously, constant comparisons across the codes and the data were also carried out. Figure 3.13 presents an example of initial coding:

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[20]Professional and non-professional literature cited in the thesis are listed in the References. Non-professional literature used as the secondary source of research data are listed in Appendix A.

FIGURE 3.13: Example of Initial Coding using ATLAS.ti Software
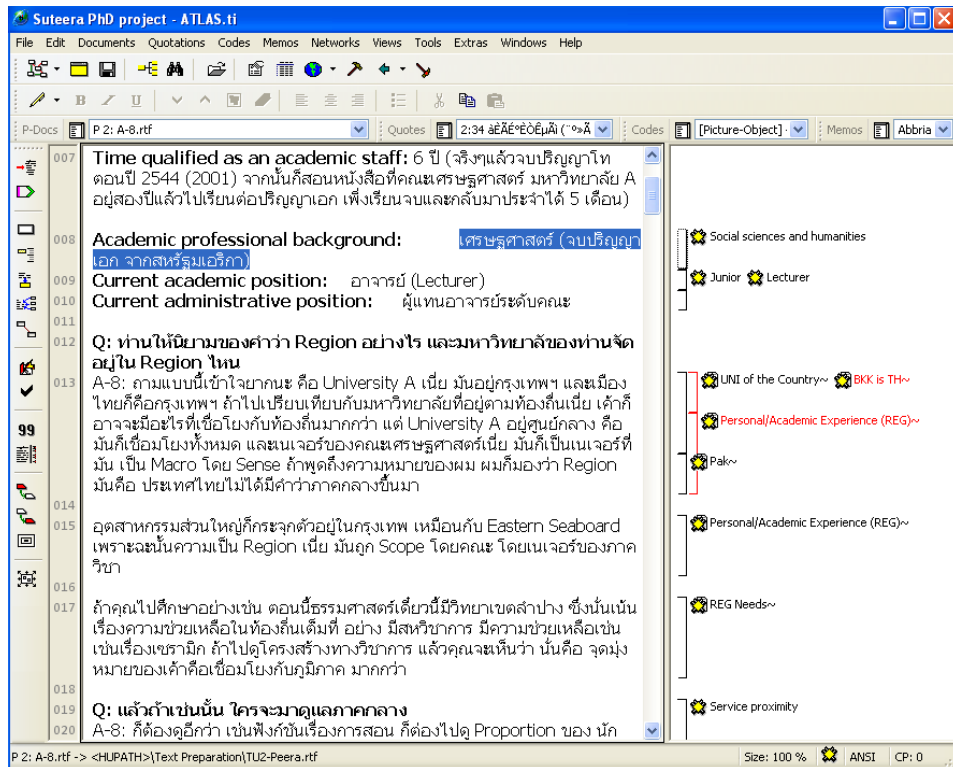
Source: developed by the author.

Also, assisted by ATLAS.it, the researcher could efficiently keep track of all codes developed and the incidents in which the codes were grounded[21]. In all the data analysis processes in which the researcher undertook constant comparisons across the codes and incidents, ATLAS.ti helped the researcher quickly to retrieve and review codes and the data in which they were grounded.

3.4.2.2 *Categories*

As a further step of coding, the researcher categorized initial codes into categories; the purpose of this process was to synthesize larger segments of data using higher level concepts than those of the initial codes (Charmaz, 2000; Strauss and Corbin, 1998a). Each category was generated as an 'underlying uniformity', illuminated by degrees of 'consistency of meaning' of its properties, or initial codes of the category (Glaser, 1978, p.62). Similarly, Charmaz (2000, pp.87–88) considers categories as 'prototypes' or 'cognitive models' of the observations; she recommends that this process is started after some strong analytic directions have been established. Coding at this stage is also known as focused coding (Charmaz, 2006) and substantive coding (Glaser, 1978).

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[21]See Appendix E for all developed initial codes.

After the first interview was processed, the researcher started making comparisons across the data. By doing so, a category was developed when the researcher sensitized a pertinent conception among initial codes (Strauss and Corbin, 1998b). Given the case boundary as the context of data analysis, this data categorizing process is similar to approaches to 'de-contextualization' and 're-contextualization' of qualitative data suggested by Tesch (1990) (Figure 3.14).

FIGURE 3.14: Categories
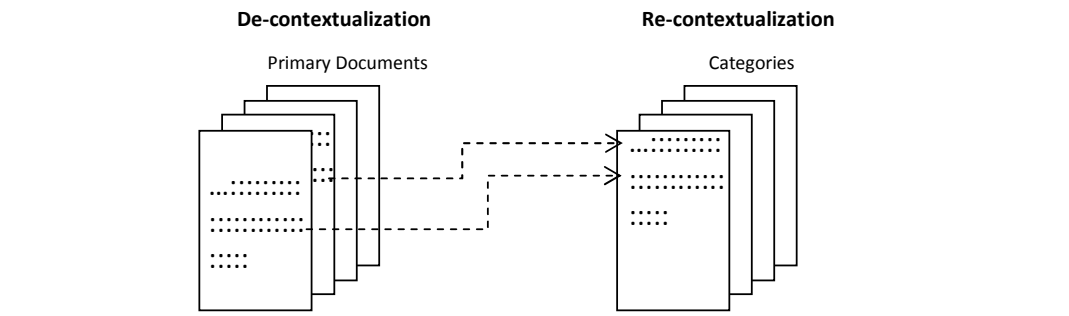
Note: In some cases, one category may belong to more than one mode depending on its relationships with other categories in those modes.
Source: adapted from Tesch (1990, p.122).

Categories developed during the data analysis processes are presented in Appendix E together with their associated initial codes.

3.4.2.3   Coding Families

There are different, distinctive views of how categories are to be analytically processed after the code categorizing stage; one view originated by Strauss and Corbin (1990, 1998b) suggesting 'axial coding strategy' whereas another view is provided by Glaser (1992), who prefers the use of 'coding families'.

According to Strauss and Corbin (1990, 1998b), axial coding comprises patterns or 'relationships' of categories and other categories, classified as 'sub-categories' given 'defined conditions' of the relationship. Considering the use of categories related to their sub-categories, Glaser (1992) considers the axial coding as discriminating emerging codes with the researcher's preconception, which contradicts the principle of the GT method.

Agreeing with Glaser (1992), the researcher was rather assisted by 'coding families' when investigating analytical relationships of developed categories (Figure 3.15).

FIGURE 3.15: Coding Families
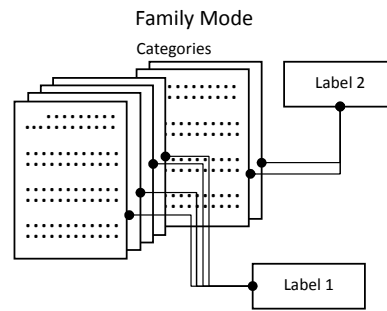
Note: Label = indicates coding family. Family Mode can be either Regional Profiling, Institutional Profiling or Individual Profiling.
Source: developed by the author.

The development of coding families was in accord with the three study propositions, namely 'regional profiling', 'institutional profiling' and 'individual profiling' considered as 'modes' of the case analysis, as the researcher labelled relationships among categories initially classified into these modes. The three modes were therefore the analytical grounds of these relations. In this regard, Glaser (1978, p.81) finds that categories could form families of 'causality', 'process', 'classification' or 'strategy'. For this research, together with categories, developed coding families are provided in Appendix E.

3.4.2.4   Theoretical Codes

Theoretical codes were hypothetical relationships among categories. Glaser (1978, p.55) describes the significance of theoretical coding as:

> '... in generating a theory by developing the hypothetical relationships between conceptual codes (categories and their properties) which have been generated from the data as indicators, we "discover" a grounded theory.'

It must be borne in mind that all codes developed throughout the analysis process were not investigated variables or had correlations with each other (Charmaz, 2006). Rather, they were seen as putative patterns of academic experience under the case investigation (Eisenhardt, 2002). In this sense, theoretical codes were hypotheses of the emerging theory that guided the researcher towards further data collection for theory testing, in order that the theory may be confirmed (Corbin and Holt, 2005; Glaser, 1978; Strauss and Corbin, 1998b). Together with categories and coding families, theoretical codes and the developed hypotheses will be presented alongside the report of research findings.

3.4.3 THE USE OF PROFESSIONAL LITERATURE

As discussed earlier, descriptive documents and non-professional literature were reviewed and used as research data. Furthermore, professional literature from previous studies in the areas related to the investigation was also reviewed during the data analysis processes. The purpose of reviewing this literature was different from those presented Chapter 2, which allowed the researcher to gain local knowledge relevant to the area of investigation.

The review of professional literature in parallel to the data analysis, on the other hand, was undertaken for two reasons: first, to examine coinciding concepts already identified in existing literature (Glaser, 1992); and second, to stimulate the researcher's theoretical sensitivity (Bryman, 2008; Strauss and Corbin, 1998b). Despite some researchers (*e.g.* Charmaz, 2006; Strauss and Corbin, 1998b) suggesting that existing concepts may be imported to guide the exploration of similar concepts in the research data, the researcher contradicted this suggestion. By doing so, the researcher supported Glaser's (1992) view that this practice as not based on the essence of GT building. In light the of this, to import existing concepts was considered to introduce preconceived ideas.

To avoid being influenced by existing concepts presented in reviewed literature, the researcher regularly checked the codes developed during the analysis process to ensure that they were grounded in the collected data. Any concepts coinciding with those existing in literature resulted from constant comparisons made across the data and the literature. Furthermore, by constantly comparing the developed concepts with those in the literature, the researcher was able to identify the specific contribution to knowledge this study made within the overall of investigation (Glaser, 1992).

3.4.4 THE RESEARCHER'S MEMOS

In addition to carrying out theoretical sampling, analysing the data and reviewing related literature, writing memos was another task that the researcher undertook throughout the theory building processes. As defined by Goulding (2002, p.65), memos written throughout the GT processes form 'a bank of ideas which can be revisited'. The use of memos is emphasized by Glaser (1978), who asserts that without memos, the researcher is not in fact doing grounded theory. In this study, memos were written in several forms, including: field notes, code notes,

theoretical notes and operational notes (Goulding, 2002; Strauss and Corbin, 1998a). Figure 3.16 is an example of the researcher's memo:

FIGURE 3.16: Example of the Researcher's Memo
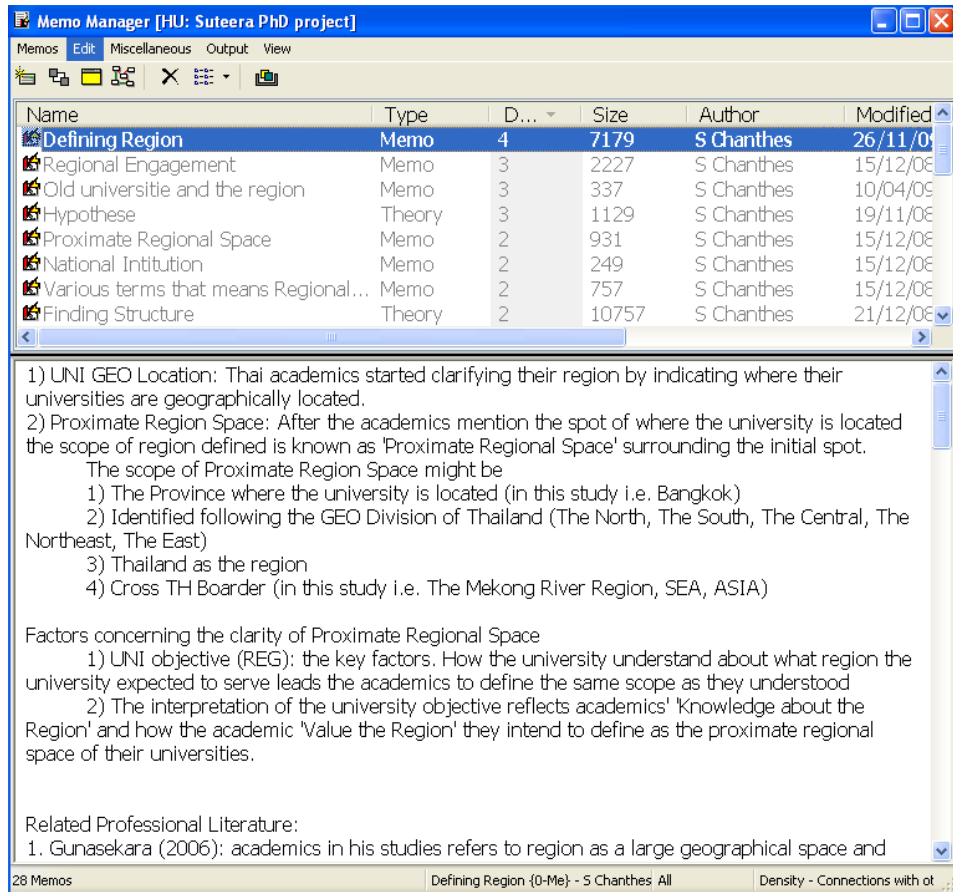
Source: developed by the author.

The researcher used memos for four purposes: first, to record all the activities occurring during the fieldwork process, together with the researcher's thoughts about the occurrences (Dey, 2004); second, to record, arrange and display the researcher's conceptual ideas that emerged throughout the data analysis processes (Glaser, 1992; Strauss and Corbin, 1998b); third, to stimulate the researcher's theoretical ideas as all memos were written analytically (Chambers, 2005); and finally, written as diagrams, some memos were used as a conceptual map showing interrelationships between codes and categories (Strauss and Corbin, 1998b).

3.4.5 THEORETICAL SATURATION

As the outcome of GT research, a developed theory is either a substantive or a formal theory (Glaser and Strauss, 1967). According to Strauss and Corbin (1998b), a substantive theory is grounded in the data of one particular setting, whereas

formal theory is grounded in the data from diverse settings. In this sense, the formal theory is considered as having a higher level of abstraction than the substantive one; the formal theory therefore may by applied in wider pertinent areas (Charmaz, 2000; Strauss and Corbin, 1998b).

Bearing in mind the boundary of this GT case study, the study was conducted in a substantive area of the work experience of Thai academic staff; the study outcome was therefore expected to be substantive theory that explained the academic services work of Thai academics and that fulfilled the engagement with the region surrounding them. Although the case study was conducted in multiple sites, with the research data being collected from multiple universities, it was considered as one particular case setting.

To explain further, the researcher investigated the regional academic services performed by different individual academics, not different individual universities; each individual involved in the investigation was considered as sharing similar contextual conditions of the phenomenon that the researcher looked at (Burgess *et al.*, 1994), consisting of: individual profiling (being an academic); institutional profiling (working in a public university), and regional profiling (being surrounded by the regional economy).

The researcher initially saturated the emerging theory after the 16 interviews with academics from Universities A and B had been processed. At that stage, the researcher developed the initial emerging theory and hypotheses. To test the developed hypotheses, further data from academics working in universities different from Universities A and B were required. The researcher therefore utilised the interviews with academics from University C and additional institutional documents as the data to test that emerging theory.

During the analysis of the data collected from University C, no new categories emerged; instead, new incidents were constantly added to those existing ones. Implicit in this approach, no more theoretical codes were generated; it was therefore confirmed that the emerging theory had achieved its 'theoretical saturation' (Charmaz, 2006, pp.113–115; Glaser and Strauss, 1998b, pp.61–62; Glaser, 1978, p.53). In other words, a substantive grounded theory was eventually generated. The entire process of this study is summarised in Figure 3.17:

FIGURE 3.17: The Research Processes

Outcomes

Initial Codes — Categories & Coding Families — Emerging Theory

Substantive theory of Thai academics delivering academic services at region level

Concerning:
1. Regional Profiling (Chapter 4)
2. Institutional Profiling (Chapter 5)
3. Individual Profiling (Chapter 6)

Hypotheses

Processes

Research questions → Theoretical sampling → Collecting data → Coding (Phase 1) → Constant comparisons → Theoretical codes → Theoretical sampling → Coding (Phase 2) → Saturating the emerging theory

(Phase 2)

Relevant activities

Designing multi-site case study.

Conducting pilot study

Reviewing Institutional documents

Interviewing academics at Universities A, B and C

- Analysing interviews data collected from Universities A and B
- Analysing institutional documents
- Reviewing and discussing professional literature

- Analysing interviews data collected from University C
- Analysing institutional documents
- Reviewing and discussing professional literature

Source: developed by the author after Bryman (2008, p.545).

3.5 REFLECTIONS ON THE STUDY

As pointed out by Flick (2002) and Lincoln (2002), the problem of how qualitative research should be assessed has not yet been solved. There are various propositions regarded as the appropriate way to judge the merits of qualitative studies. Flick (2002, p.368) classifies these alternatives into three groups: classical criteria, method-appropriate criteria and ongoing criteria discourses (Table 3.14).

TABLE 3.14: Criteria for Judging Qualitative Studies

Group of criteria	Underpinning paradigm	Recommended criteria
Classical criteria	Positivism and Post-positivism	Reliability, validity, generalisation
Method-appropriate criteria	Anti-positivism	Transparency of research processes, specificity and comparability of research outcomes
Discourses about whether qualitative research needs to be judged	Anti-positivism	Not applicable

Source: developed by the author after Flick (2002) with some materials from Corbetta (2003) and Patton (2002).

The first group support the application of classical criteria, such as reliability, validity, and generalisation (Flick, 2002; Schofield, 2002)[22]. The second group, as classified by Flick (2002, p.368), support the development of new 'method-appropriate criteria' concerning the specific peculiarity of the qualitative research processes[23]. Finally, the third group suggest that qualitative researchers rethink the criteria discourses about whether qualitative research needs to be judged[24]. This alternative is proposed based on the concerns of representational and legitimisation crises of qualitative social studies. Denzin and Lincoln (2008) consider that the qualitative paradigm has entered the contemporary era and the

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[22]For instance, based on traditional criteria for judging scientific research, Miles and Huberman (1994, chapter 10) suggest 13 tactics to validate qualitative research findings. These tactics include: (1) checking for representativeness, (2) checking for researcher effects, (3) triangulating the findings, (4) weighting the evidence, (5) checking the meanings of outliers, (6) using extreme cases, (7) following up surprises, (8) looking for negative evidence, (9) making an if-then test, (10), ruling out spurious relations, (11) replicating a finding, (12) checking out rival explanations, and (13) getting feedback from informants. Similarly valuing the matter of validity , Yin (2009, pp.40–45) indicates four classical tests as the tests of case study quality, including: 'construct validity', 'internal validity', 'external validity' and 'reliability', also known as 'the trinity of reliability, validity and generalization' claimed to heavily underpin scientific investigation, rather than social science (Kvale, 2002, pp.300–302).

[23]For instance, rather than applying traditional criteria to judge the quality of GT research, Glaser (1978) suggests the criteria of fit, work, relevance and modifiable. As another example, Denzin and Lincoln (2008) address 'trustworthiness' and 'authenticity' as the criteria for constructivist studies. Providing a quality criterion of qualitative research against the generalisation used for quantitative results, Corbetta (2003) points to the quality of specificity to be used for qualitative results.

[24]See also Denzin and Lincoln (2008, pp.26–27) for further discussion on this idea.

conventional criteria has been retheorized. However, this is an ongoing idea involving several debates and discourses about the historical development and nature of qualitative research itself.

Notwithstanding different ideas, it is discerned that the judging of merit of qualitative research concerns the justification of the research processes and outcomes (Guba and Lincoln, 2000; Strauss and Corbin, 1998b). Bearing in mind its anti-positivist stance, the 'method-appropriate criteria' was chosen for judging the study credibility, which implies the study merits. With respect to the chosen stance, this section therefore reflects the research processes, the research outcomes and the exemplifying quality of the case study setting (Figure 3.18).

FIGURE 3.18: Reflections on the Study

Dimensions	Research Components	Judgement of Credibility
Research Processes	Grounded Theory	Rigour and Transparency
Research Outcome	Substantive Theory	Explanatory Function
Substantive Empirical Setting	Multi-Site Case Study	Exemplifying Quality
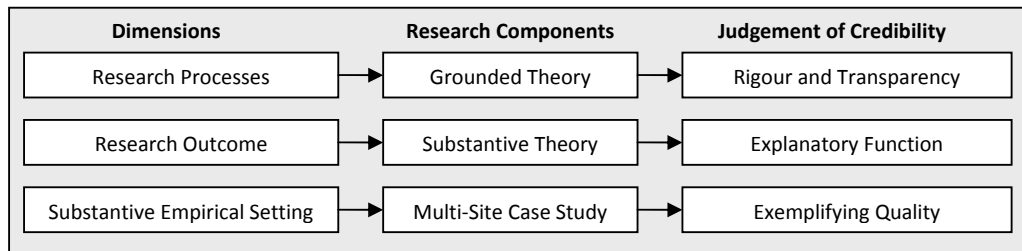
Source: developed by the author.

3.5.1 JUSTIFYING THE RIGOUR OF GT PROCESSES

The researcher employed GT as the research method because the GT processes were seen as rigorous and suitable for the investigation of the detailed and complex facets of academic work. Also, existing studies on academic involvement in academic services to the surrounding region are rare in the Thailand context. In particular, missing from existing studies are studies focusing on academic work at the individual level. Accordingly, existing understanding concerning this area of investigation is also rare.

Seale *et al.* (2004) indicate that to judge the quality of qualitative research processes is to ask questions about the transparency of the research method. Traditionally, reliability of research processes is often discussed (Creswell, 2007; Lincoln, 2002). However, Strauss and Corbin (1998b, p.266) claim that reliability is concerned about the reproducibility of the study whereby similar outcome is expected to be obtained when similar processes are reproduced; they therefore contradict the application of reliability to judge qualitative social studies when considering that it is 'nearly impossible' that social meanings are replicated. Particularly, because

the empirical setting of the research is a case study, Janesick (2003, p.70) asserts that the value of a case study is its uniqueness; she also claims that, for the case study, 'reliability in the traditional sense of replicability is pointless'. Presenting a similar concern, Patton (2002) suggests that the transparency of qualitative research processes is obtained through the use of rigorous research methods.

During the GT research processes, the researcher functioned as one of the investigation instruments (Glaser, 1992). With regard to this function, Goulding (2002, pp.156–157) is aware of some 'risks' of lessened research merit caused by the researcher's lack of theoretical sensitivity. One risk is that, with poor sensitivity, the researcher might develop emerging categories with poor theoretical relations. As another risk, the researcher might be lost during the research processes due to the nature of openness of the approach. Notwithstanding these risks identified, Goulding (2002, p.156) asserts that the risks of the GT approach 'are of lesser concern for researchers who define their boundaries to begin with, explore the literature fully, identify key research questions and collect data to answer them'.

Considering the investigation design of this study, it is discerned that the researcher put effort into preventing these risks. The prevention includes the use of the case study as the investigation boundary, the structure of detailed research questions and the review of literature in parallel with the GT processes (Figure 3.19).

FIGURE 3.19: Prevention of Risks of GT Processes
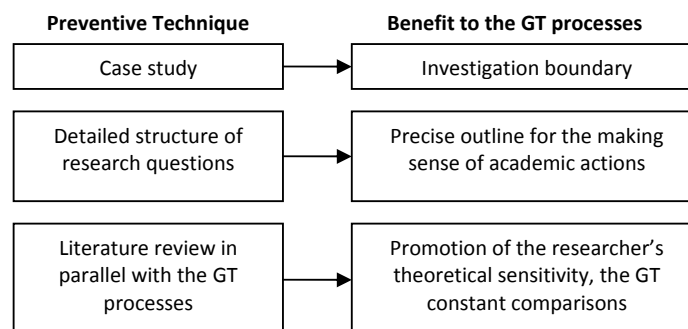
Note: GT = grounded theory.
Source: developed by the author.

To explain this argument further, the GT approach allowed the researcher to gradually develop the substantive theory grounded in the case data. With the assistance of the case propositions, which formed the investigation boundaries, the research operation was carried out precisely.

Additionally, with the chosen strategy to review and discuss both non-professional and professional literature in parallel with the other steps of investigation, the researcher gradually developed a vigorous theoretical sensitivity, which is vital for the construction of emergent theory (Charmaz, 2006; Glaser, 1992).

Finally, with the employment of a constant comparative analysis strategy during the theory building, most of the research processes were seen as transparent. Concerning this practice, by developing the coding structure comprising codes from all abstraction levels, from low to high, empirical data in which the theory was grounded could be tracked back to confirm the theory groundedness (Strauss and Corbin, 1998b).

3.5.2 THE EXPLANATORY FUNCTION OF THE DEVELOPED THEORY

As research outcomes, grounded theories face the challenge of being properly developed as a theory. As pointed out by Burden and Roodt (2007), these outcomes of GT studies are sometimes defined as 'substantive models' rather than theories when the study is conducted in an organisational context. Considering this view, in order to provide a distinction between 'substantive models' and 'substantive theories', they (Burden and Roodt, 2007, p.13) explains that 'the heuristic function is the most common characteristic of models, while the explanatory function is usually attributed to theories'.

For this study, its eventual outcome was regarded as a theory, not a model (Figure 3.20). To confirm the theory status, its explanatory function was generated through theoretical properties relevant to academic services not specific to particular regions, universities, or individuals at a higher level of abstraction when the theory was saturated. Properties at this level are known as theoretical codes[25].

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[25]Regarded as eventual outcomes of the GT processes, theoretical codes concerning the three investigatory propositions — regional, institutional and individual profiling — are presented in the next three chapters following the presentation of empirical evidence.

FIGURE 3.20: Explanatory Function of the Developed Theory
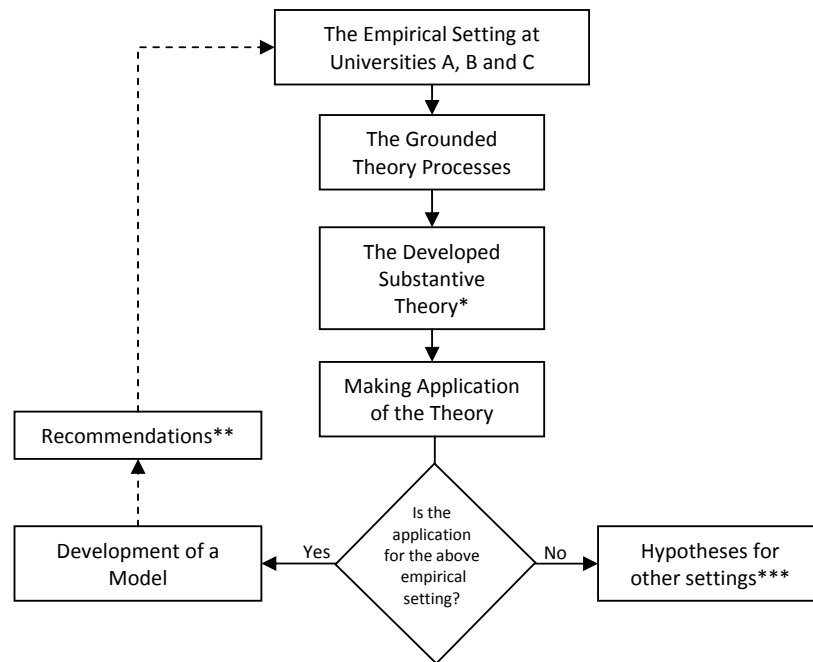
Note: *presentation of the developed theory is divided into three parts and presented in the next three chapters; **recommendations for the setting of this study are given in Chapter 7; ***theoretical implications and limitations of the theory is presented in Chapter 8.
Source: developed by the author.

The application of the theory to other settings should therefore be in the form of **hypotheses** whereby further **hypothesis testing** must be done beforehand. Once these hypotheses are tested as positive, any models or recommendations made to the empirical setting are believed to be applicable to those settings. In other words, the rigour of explanatory power is expected when the theory is used for settings comparable to the empirical setting.

Despite claiming to have the explanatory power, it must be borne in mind that theoretical properties emerging during the theory construction were seen as **putative patterns** of subjective relationships rather than **variables**, which have objective casual correlations (Eisenhardt, 2002). That is, with regard to the philosophical underpinnings, subject values involved throughout the theory construction make it impossible for the theory to approach perfect repeatability. Taking into account the values, this condition is emphasized by Weber (1968, p.9) that:

> '...no matter how clear on interpretation as such [clarity and certainty] appears to be from the point of view of meaning, it cannot on this account claim to be the causally valid interpretation.'

3.5.3 THE CASE'S EXEMPLIFYING QUALITY

To consider the case exemplifying quality, it must first be emphasized that this study was not a case study inquiry; 'the comprehension of meaning' of academic actions concerning specific characteristics of the case sites was not as important as the characteristics of the academic work of individual staff, which formed the 'heart' of the inquiry (Miles and Huberman, 1994). Accordingly, the developed substantive theory serves the 'discovery of regularities' concerning the given substantive context, or the case boundary (Tesch, 1990, pp.63–67). In this regard, the theory represents the empirical situation within the case itself, not in a wider extent beyond the case boundary (Stake, 2008). Nonetheless, it might be seen as an exemplifying case of similar phenomena (Bryman, 2008).

Despite the case boundary, the academics studied shared some common conditions of work with others outside the case setting; these conditions included: being an academic, working for a state-supervised university, and being surrounded by the region. As presented earlier, there are 22 traditional LAUs in the Thai HE system[26]; therefore, the developed theory may comparatively apply to other academic staff, whose conditions are comparable to those included in this case investigation (Bryman, 2008; Flyvbjerg, 2004).

Furthermore, the university-region engagement takes part in the contemporary interests of other HE systems across the globe (*e.g.* Chatterton and Goddard, 2000; Gunasekara, 2006b; OECD, 1999; UNESCO, 1998). The conduct of this study was underpinned by the shared concerns with those systems; the study conduct may therefore be seen as providing **a typical example** to academic staff in countries other than Thailand (Bryman, 2008).

3.6 CONCLUSION

This chapter dealt with the investigative designs of this study. At first, the chapter presented the employment of the case study in clarifying the substantive area of this study. As a result, this study was designed as a multi-site case study conducted in three selected Thai public universities. These universities were leading traditional universities located in three different regions in Thailand.

Then, there were philosophical discussions leading to the clarification of ontological perspectives and the epistemological stance of the investigation. Based

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[26]These universities are listed in Appendix C.

on these underpinnings, the chapter moved on to the methodological discussion and eventual choices employed for the investigation. Grounded theory was the choice of research methodology. The methods of generating and collecting data were semi-structured interviews and the review of related institutional and government documents. After that, processes of GT analysis were dealt with; the chapter explained how the research data were processed until a substantive theory was developed as the eventual outcome of the study. The research underpinnings are summarised in Table 3.15:

TABLE 3.15: Philosophical and Methodological Underpinnings

Dimension	Chosen Strategy	Rationale
Empirical Setting	Multi-site case study	Substantive boundary of the investigation
Ontological paradigm	Anti-positivism	Involvement of subject's beliefs and values
Epistemological paradigm	Interpretive approach	Subjective meaning of social action
Interpretive approach	Constructivism	Involvement of researcher's beliefs and values
Methodological paradigm	Qualitative research	Depth and detailed investigation of subject's life experiences
Methodological approach	Grounded Theory	Empirical evidences dominate the construction of subjective meaning of academic experiences
Data generation and collection	Multiple instruments	Controlled generative data
Research credibility	Method-appropriate criteria	Investigative rigour of research processes and outcomes in the given empirical setting

Source: developed by the author.

The presentation of research findings is divided into the following three chapters. The next chapter is the first part of the findings series; it will discuss university regionalisation that emerged from the perspectives of individual staff studied at the three universities.

C h a p t e r 4

REGIONAL PROFILING

4.0   INTRODUCTION

This chapter is the first part of the findings series. It deals with university regionalisation as conceived and understood by academic staff. The presentation of this chapter is in accordance with two questions:

1. How do academic staff make sense of the university's region?

2. What geographical areas are conceived by academic staff as their university's regional territories?

According to the site selection discussed in Chapter 3, the investigation took place in three universities located in different areas of Thailand. Evidenced from the participating staff suggests that the perceived scope of the university region varied from one university to another. This is similar to the variation of academic perceptions towards the significance of them serving the region, which also varied depending on the university's historical development, the university's service mission and the characteristics of the university locality.

Despite different site locations and regional territories, it was found that the region, seen as the 'direct environment' of each university, had similar importance to the work of academic staff (Van der Sijde and Schutte, 2000, p.7). That is, interactions between academic work and the region were reported in the form of academic staff either serving regional needs or using resources existing within the regional proximity.

Given the above outline of the research findings, this chapter is divided into four sections. Each of the first three sections deals with the idea of university regionalisation of each university studied together with empirical evidences of regional services. Then, discussions of these findings are provided in the fourth section.

4.1   UNIVERSITY A

The locality of University A is Bangkok, the capital city of Thailand located in the centre of the Central region. Of all interviewed academic staff from the three universities, those from University A appeared to have less clarity in terms of regional identity than those at the other two universities. To be exact, University A participants claimed not to have any regional identity; the term 'region' was considered not to suit the University's character as it was an old traditional university located in the capital, which is central to the country's development in all aspects.

4.1.1   THE LITTLE IDEA OF REGIONAL IDENTITY

Concerning the university's historical development, University A is the second oldest university in the country[27]. Following the political reform of the absolute monarchy in 1932, which led to the implementation of democracy in Thailand, the demand for higher educated manpower was significantly increased to meet the needs of the new political system (Sinlarat, 2004).

To explain further, bearing in mind the history of the Thai university presented in Chapter 2, this university was found primarily to train leaders of the society. The university's traditional mission concerns national needs. Accordingly, as reflected by academic members, the public commitment of their university was to serve at the national level, rather than to focus on the needs of any particular sub-national society. These views were in accordance with the foundation purpose of the University that stated that:

> 'The main goal of the University's foundation was to teach student to love and cherish democracy . . . [University A] is a university *of* and *for* people. It has faithfully served as, and will continue to be, a place for blossoming of knowledge.'

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[27]As introduced in Chapter 3, University A was founded in 1934. Compared to the other two selected universities, it is 33 years older than University B (founded in 1967) and 30 years older than University C (founded in 1964).

In addition to the historical development, being a traditional university located in the capital appeared to influence this university and contributed to the lack of a regional identity. This finding agrees with Boucher *et al.* (2003) who argues that universities in a metropolitan area are surrounded by both core and diverse social and economic developments; it is evidenced by University A staff appearing to respond to the national economic and social needs as the priority of their service function. In the light of this, some of them equated the term 'region' with 'parochialism' and saw this term as the 'antithesis of metropolitanism and cosmopolitanism' (Chatterton and Goddard, 2000, p.478).

With respect to the elite 'central' status of the capital, some academics interviewed admitted to having little idea of delivering academic service in respect of issues attached to any specific geographic territory smaller than the national territory. For these staff, their 'region' was the whole country. As one mentioned:

> 'Who cares about region? We are in a globalisation era; academic work is universal and knowledge flows globally . . . However, as the government expects academic staff to be more proactive in service and my university is located in the capital and this is one of national leading universities, I think serving national needs is the University's focus.' (Participant: A-4)

4.1.2 PRIMARY SERVICE PROXIMITY: THE CORE

Despite staff of University A claiming to have little clarity of regional identity and asserting to serve national interests, the geographic proximity regarded as University A's service territory was implicitly identified by data given by these staff themselves; this territory was the capital city, or the Core region.

To explain further, Bangkok is the home to a number of national and multi-national companies reported as the university's service recipients. Located in the core, University A was close to not only a range of national authorities but also the headquarters of national and international firms, or industrial entities. These private organisations were potential co-operative partners in the building of UILs, regarded as important activities of the NIS (Termpitayapaisit, 2006). As one member of staff reflected:

> 'It is because of the density of industries and good connections the university management have with public and private enterprises. If you look at university reports, you will find that the university have built strong linkages with both the government and industries, many of them are large-scale firms.' (Participant: A-5)

In terms of economic profile, according to the NESDB (2006), the Bangkok economy is based on non-agricultural industries. Non-agricultural products contributed 99.99% of the 2006 Gross Provincial Product (GPP)[28]. Private enterprises in Bangkok consist of both national and global establishments. As of 2006, establishments in the forms of limited companies and public limited companies possessed 19.5% of the total of 41,459 registered establishments in Bangkok, 1.8% of which had foreign investment or share holding. In this sense, Bangkok is the home to not only national but also global industries concerning the great volume of national and global investments.

The above characteristic of economic actors was found to significantly influence academic members to put their interests on national and global rather than local or regional subjects, as one Associate Professor of Business Administration remarked:

> 'I have good contact with many major enterprises, some public and some private. I think good connections play a key role in academic services. Although the definition of the function is broad, to me, it simply means anything other than ordinary teaching and research. And because I have to allocate my time to do the work, choices would be those major bodies I just mentioned. They are more prestigious to deal with than other smaller ones.' (Participant: A-3)

By the same token, being located in the same proximity to those state authorities, it was convenient for academic members making contacts with these authorities, particularly contacts made on a personal basis leading to a more formal connection at institutional level. As stated by a Vice President:

> It mostly starts from a personal connection. Bringing in outside projects, research and non-research, is the responsibility of faculty Deans. For example, in my faculty [Faculty of Law], the Dean is excellent in doing his job; we get good projects every year as he has good connections with state authorities and he fights for funding.' (Participant: A-2)

Similarly, as an Associate Professor of Engineering reflected:

> 'It is good for students too. In their 3rd year, these students are required by their programmes of study to work in a real organisation. To work with these institutions [state enterprises] is a good learning opportunity for them. In principle, these institutions are expected to welcome students. In practice, however, it is more convenient if academic members have a good existing contact with them.' (Participant: A-3)

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[28]See also Appendix F for statistics of economic activities in Thailand by province and region.

By considering the evidence shown above, it is discerned that, despite primary service recipients of University A being geographically local, their activities concern a wider view, nationally and internationally, well beyond the physical locality.

4.1.3 USING THE CORE ASSETS

Although the Bangkok economy is non-resource based and its primary economic sectors are manufacturing and wholesale and retail enterprises, there were several advantages of location which University A academics could utilise for their academic performance.

Firstly, four major state funding bodies of academic research are located in Bangkok; these bodies include: (1) the National Research Council of Thailand (NRCT), (2) the Thailand Research Fund (TRF), (3) the National Science and Technology Development Agency (NSTDA) and (4) the Health Science Research Institute (HSRI). University A academic managers and staff considered this as an enabling factor regarding their access to additional academic resources. As a Lecturer in Computer Science mentioned:

> 'The university is close to the National Science and Technology Development Agency (NSTDA), just minutes drive away. Many of our research projects are sponsored by the agency. Additionally, we are quite lucky to be here as academic staff are granted an access to use many high-tech facilities, which are very expensive.' (Participant: A-7)

Secondly, bearing in mind that targeted recipients of University A are mainly based in Bangkok, income generated from serving private entities also attract staff to get involved with service. As reflected by an Associate Professor of Engineering:

> 'It is up to you; if you are good at it you do it. Outside projects always pay better than academic salary. Plus, if you work with large firms, which plenty of them are in Bangkok, it is good for your profile too.' (Participant: A-4)

Finally, transportation is also recognized as another essential asset. Bangkok is the country's transportation hub for all modes including ground, air and sea, for passengers and freight. The significance of this economic sector is confirmed by its 15.1% of total GPP, presented as the fourth largest industrial value in Bangkok[29]. Included in this figure are export and import services and establishments such as logistics and shipping. With respect to these activities, targeted academic services

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[29]See also Bangkok economic statistics presented in Appendix F.

were not limited to national organisations; services to international parties were also included. As stated by a Vice President:

> 'Why would you care more about local if you are in the central of national and international connecting point? There are many universities located in Bangkok that not all of them are able to serve international interests. This university is one of those that are, so we do.' (Participant: A-1)

4.2 UNIVERSITY B

A strong regional identity was reported by academic staff from University B. The South of Thailand was perceived by the academic staff and managers as the university's regional identity.

In terms of geographical profile, Southern Thailand has the longest length of coast, compared with other regions, amounting to 1,672.2 kilometres (NESDB, 2008b). The shape of the region is long and narrow covering a total land area of 70,715.2 square kilometres, which is equivalent to 13.8% of the total land area of Thailand (MOI, 2008). With respect to the length of the coast, this region is a seaside landscape embraced by the Andaman Sea on the west and the Gulf of Thailand on the east.

There are 14 provinces in the region, namely: Chumphorn, Krabi, Nakorn Sri Thammarat, Narathivat, Phangnga, Phattalung, Pattani, Phuket, Ranong, Satun, Songkla, Surat Thani, Trang and Yala. Thailand has a border with Malaysia at the lowest part of the South. The five border provinces are Narathiwat, Pattani, Satun, Songkla and Yala.

The main campus of University B where this research was carried out is in Hat Yai city, the major city of Songkla province. The city is in the lower part of the South and located close to the Thai border with Malaysia. With regard to the locational character, Hat Yai is the centre of business, commerce and transportation as it functions as an interconnecting border trading point (Makishima, 2003). At the other end of the region, the Upper South is geographically connected to the Central Region hosting forms of the ground transportation network and connecting the South to other regions of the country.

4.2.1 TARGETED SERVICE PROXIMITY: THE SOUTH

As mentioned in Chapter 2, the first five public universities of Thailand were established in Bangkok before the establishment of the first university in any other regions in the 1960s. University B was the first public university of the Southern region; it was founded in accordance with the government policy to expand HE opportunities in regions outside the Capital (Sinlarat, 2004). According to this history, the University was founded to serve the region, as clearly stated in its history of foundation:

> 'The Department of Provincial Administration was assigned by the Thai government, through the Southern Development Committee, to initiate a project to set up a university in Southern Thailand. While the institution was being built, for lack of an official name, the name of "Southern University" was adopted.'

An awareness of the particular Southern identity as expressed in the views of University B academics was rooted in this foundation history. As one reflected:

> 'To serve the Southern region is our all-time principle ... some people even say the University is the South's big brother as we do our job well serving the needs of the region'. (Participant: B-3)

4.2.2 SERVING SOUTHERN NEEDS

The uniqueness of social characteristics of Southern Thailand and the resource-based economy of the region were reported as the reasons that helped to strengthen a strong Southern identity in the views of the University B academic staff.

Southern Thailand possesses a richness of natural resources giving the South many economic advantages. According to the NESDB (2006), the Southern economy is formed by resource-based industries. The agricultural sector contributed 37.9% to the Gross Regional Product (GRP) at the current market prices[30]. In the light of this point, the agricultural sector forms the largest proportion of the Southern GRP value compared with other non-agricultural sectors. Important economic agricultural products are rubber, oil palm and fruit plants. Also, fishing contributed 8.1% of the total GRP in 2006.

Bearing in mind the geographical characteristics of the South discussed earlier, the South possesses a range of land and sea resources that underpin the

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[30]See also Appendix F.

resource-based economy of the region. In the upper Southern land, there are middle-height mountainous areas serving the South with several raw mining products such as tin and iron, which the South of Thailand regards as the major industrial iron base of the country. There are also plain areas along the long and narrow Southern land shape that are utilised as economic plantations. The Southern tropical humid climate is good for agriculture, and the agricultural sector is very important to the Southern economy. Services related to agricultural sector were therefore recognized as centred within the university mission. As confirmed by a Vice President:

> 'Agriculture is one of the primary targeted service area. To be clear, it does not mean that only academics in agricultural sciences are in need for services; others are too. As far as I am concerned, staff from faculties such as Management Sciences, Engineering and Economics also work on agricultural projects. This is because agricultural products, such as Para rubber and oil palm, are Southern economic goods and our mission is to promote the economy.' (Participant: B-1)

In addition to agriculture, the manufacturing sector is the second largest contributor to the Southern economy with 13.5% of the total GRP in 2006. All other significant sectors, such as tourism related industries and energy products, natural gas and oil, also benefit from the Southern land and sea resources. For the tourism sector, the beautiful coastlines attract considerable numbers of tourists every year; the major tourisms cities are Phuket and Krabi.

With respect to the regional economic diversity, the comprehensive range of academic programmes at this university was therefore claimed to cover its regional needs. As one participant pointed out:

> 'The university has five campuses located through out the South. The main area of educational provision at each are diverse; one focuses on tourisms and commerce, one on social sciences and humanities and others share Sciences and Technology focus. Since this campus [Hat Yai] is the main campus, it pretty much covers most of these areas.' (Participant: B-4)

Implicit in the Southern economic activities, despite the regional industries being geographically based in the South, their targeted markets were not limited within the region; rather, national and international markets were included:

> 'To serve Southern needs does not mean you only make an impact on the South. For example, para rubber and energy are international economic goods; when we serve producers of these goods, we actually make impact on a wider extent of economy, don't we?' (Participant: B-2)

4.2.3   USING SOUTHERN ASSETS

With respect to the resource-based economy, the material assets of the South refer to the diverse range of land and sea natural resources as presented above. In detail, the previous section showed that these geographic characteristics provide the region not only with tangible inputs for Southern agriculture and manufacturing activities but also by intangible inputs for the tourism industry.

Non-material assets, on the other hand, also indicate the uniqueness of Southern culture and tradition. As for cultural divergence between the South and other regions, the majority of Southern residents are Muslim, with their traditional culture being related to Islam, whereas the majority of residents in other regions believe in Buddhism.

Considering these material and non material assets, Southern resources were claimed as the basis for new knowledge production leading this region to a knowledge economy. As one academic manager, who held a Vice President position, remarked:

> 'Southern Thailand is a very good source of knowledge production; there is a lot to learn and explore about this region. Various studies are to be undertaken regarding the richness of resources, traditions and cultures.' (Participant: B-1)

Additionally, although the university is located in a geographically peripheral region, the regional agenda did not make University B academics sense any disadvantage of location compared with those universities located in the core region. On the one hand, bearing in mind that the targeted service territory was the South, contacts were made with regional authorities and private entities. On the other hand, with the use of advanced communications technology, such as the telecommunication and internet connection, access to funding information, national and international, were not limited:

> 'We do not just seek for projects; very often projects approach good candidates too. Connections with funding agencies and collaborative partners, even those in the Capital or abroad, are never found as a barrier.' (Participant: B-6)

The above view is consistent with the 'leading university' position of this university[31] that allows the institution to enjoy 'a position as vital partner' in its

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[31] As discussed in the selection of research site in Section 3.1.3 of Chapter 3 (p.67), University B is ranked in 2006 by the CHE among top ten universities of Thailand.

region presenting 'a unique repository of knowledge' (Boucher *et al.*, 2003, p.890). In respect of a high development potential, Makishima (2003) and Webster (2006) agree with this point as they indicate that the Thai government sees the South as a series of economic clusters whereby University B was expected to be the leader of knowledge facilitators in the region.

4.3 UNIVERSITY C

Influenced by the history of the university foundation, all University C participants interviewed clearly acknowledged Northern Thailand as their regional identity.

With a historical foundation similar to University B, University C was founded in accordance with the government policy to expand HE opportunities in peripheral geographic regions outside the capital in the 1960s. In addition to this government policy, the university's historical development also shows that another force leading to the establishment of this university was the demand for a regional university for Northern people, as stated in the University's history of foundation:

> 'The University was founded in accordance with not only the government policy to initiate a university but also with public demand of Northern people for a regional university in this former Lanna Kingdom[32].'

In terms of geographical characteristics, the North region forms the largest portion of the land area of Thailand. The region consists of 17 provinces that cover 196,644.3 square kilometres, which is equivalent to 33.1% of the total land area of the country (MOI, 2008). The region can also be further divided into the upper North and the lower North parts with regard to different geographical characters. The upper North is formed by nine provinces presenting the character of highland valleys; these provinces are Chiang Rai, Chaing Mai, Lampang, Lamphun, Mae Hong Son, Nan, Phayao, Phrae and Tak. Unlike the other part, the lower North is covered by flood plain, which is of a similar character to the Central region; the eight provinces forming the lower North are Khamphaeng Phet, Nakhon Sawan, Phetchabun, Phichit, Phisanuklok, Sukhothai, Uthai Thani and Uttaradit.

Despite the clear regional identity indicating Northern Thailand, the perceptions of academic members towards the university's regional proximity of relevance to service activities tells otherwise, which is clear as this section is going to discuss.

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[32]Lanna was an ancient, formerly separate kingdom in what is now the Northern region of Thailand, which existed from the 13th to 18th Century.

4.3.1   TARGETED SERVICE PROXIMITY: THE NORTH AND THE GMS

The University C campus chosen as the research site is located in Chaing Mai province. Chiang Mai is an urban city which functions as the Northern economic centre and transportation hub. With the transportation infrastructure, Chiang Mai also has the advantage of its location being close to the centre of the Greater Mekong Subregion (GMS), as illustrated in Figure 4.1:

FIGURE 4.1: The Greater Mekong Subregion
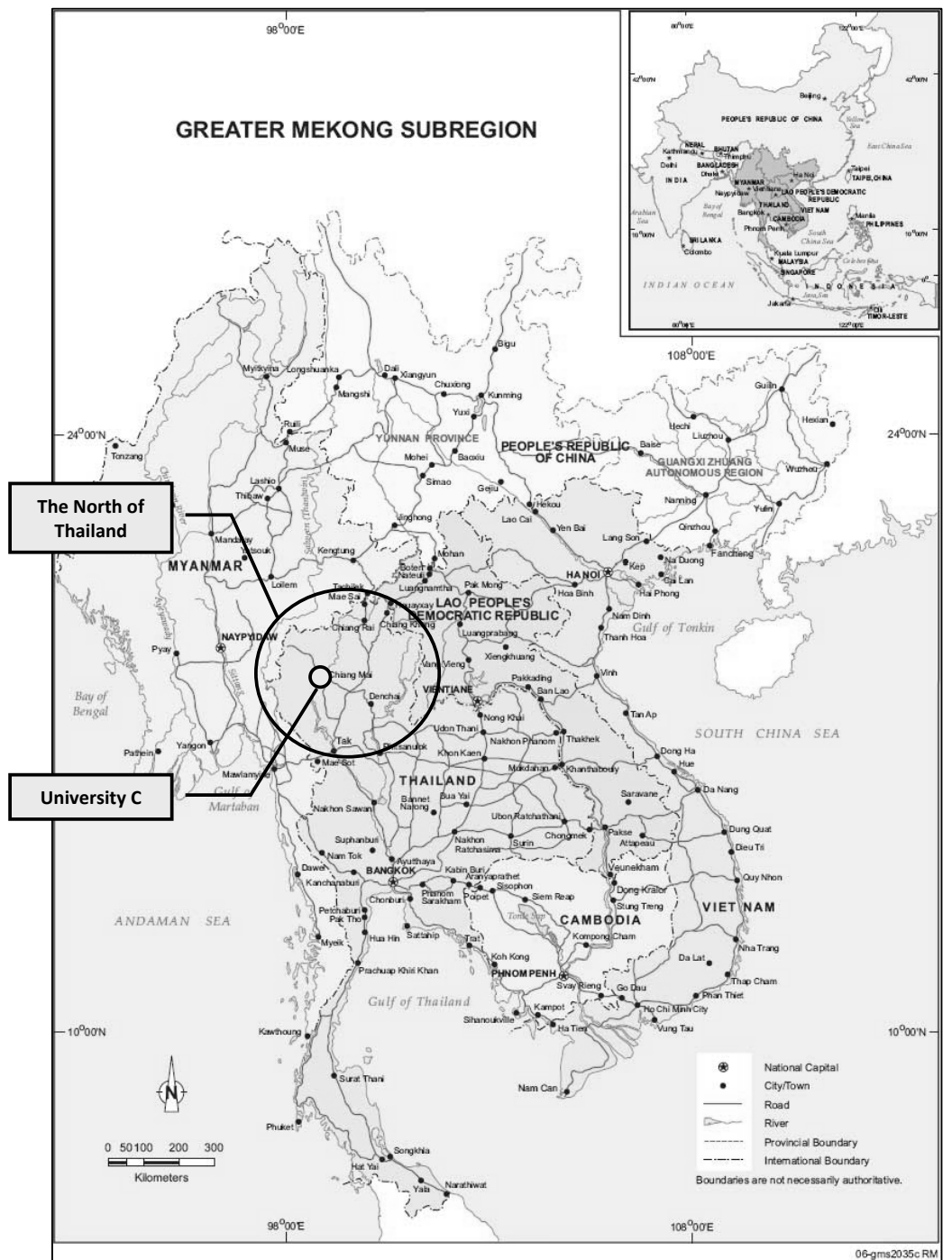
Source: adapted from the ADB (2007a, p.62).

Regarded as the advantage of location, further to longstanding traditional local commitments, academic members were guided by their university to realise an extended targeted regional engagement introduced as a contemporary regional mission of the university, namely the Greater Mekong Subregion. The followings are extracted from the current mission statement of the University:

> '...2. To produce international standardised research that contributes to the development of Northern Thailand and the Greater Mekong Subregion (GMS).
> ...4. To be the leader in the promotion of Northern arts and cultures.
> ...6. To be the knowledge centre of the GMS.'

Acknowledging the university mission, a remark was given as follow:

> 'The University is being promoted to play a leading role in the GMS, which I think is a good idea since I am quite certain that the University has the capability. Besides, the University's location is an advantage. I fully support the idea; this region has a high potential to be promoted as a powerful international regionalisation.' (Participant: C-3)

To provide further detail, the GMS is formed by parts of six neighbouring countries sharing the Mekong River Basin. These countries are Burma, Cambodia, Lao's Democratic Republic (Lao PDR), Thailand, Vietnam and Yunnan province of the People's Republic of China (PRC) (The Mekong River Commission Secretariat, 2008). The size of the Basin is 2.5 million square kilometres, which is larger than the size of the USA (ADB, 2007b). In 2007, the combined population of the GMS was nearly 320 million (ADB, 2007b). Parts of the six GMS countries sharing the Basin have long been sharing not only common borders but also endogenous cultures and traditions (Poncet, 2006).

With respect to the regional agenda of University C, which indicated not only the North of Thailand but also the GMS, this university therefore has 'a two-tier definition' of region (Charles, 2003, p.14). This finding agreed with Lawton Smith (2003) and Lee (2000) who find that academic staff make sense of their regions to reflect the regional missions, which implies the university's varying expectations on their regional actions. Bearing in mind this two-tier definition of region, discussions of relevance to academic services within this university are provided next.

4.3.2 SERVING NORTHERN NEEDS

With a similarity to the South region in terms of regional economy, the Northern economy is also resource-based with regard to the mountainous character of the

upper North and the flood plain character of flat areas in the lower North. As an advantage of the Northern mountainous climate in the upper North, the most important economic agricultural products are forestry and fruit plants, whereas those of the lower North are rice and crop plants. The second largest economic sector, covering 17.0% of total GRP, was manufacturing; this sector is also primarily formed by resource-based industries as the key economic products were refined woods, wooden furniture and frozen and canned fruits and vegetables. Additionally, with regard to the beautiful Northern mountainous landscape and forms of admirable Lanna heritages, tourism is another significant contributor to the Northern economy.

The diversity of the regional economy requires a wide range of knowledge needs to enhance the regional competitiveness. As emphasised by the University President:

> 'To serve the North is the university priority. As we aim at being a research university, our research and collaborative projects are mainly to serve the region, then the country. Most of the projects are in accord with the North's resources. Having said that, we include not only natural capital but also human capital. By focusing on Northern development, the university role involves a wide range of economic activities, from agriculture to industries and to service sector.' (Participant: C-1)

Additionally, as indicated in the mission statement of the university, Northern Thailand was a home to the Kingdom of Lanna. For this reason, Northern cultures and traditions are rooted in this ancient Kingdom. Reflected by the perceptions of staff in University C, both native and non-native Northern residents, this history was considered as a pride of the region:

> 'It used to be a civilised kingdom here. More than 700 hundreds years, this region is the social, cultural and traditional heritage of the Lanna Kingdom.' (Participant: C-3)

As a result, to serve the North was emphasised as traditional commitment of academic staff working for this university:

> 'The North is home and the GMS is a good opportunity for the University to move forward to play an international role.' (Participant: C-5)

4.3.3   TO USE THE GMS ASSETS

When the Asian Development Bank (ADB) initiated the GMS Development
Programme in 1992, this international funding organisation aimed to promote this
area as a powerful social and economic cooperation territory.

In terms of financial support, the GMS has received rapidly growing financial
contributions in terms of the numbers of contributors and the amount of funds. In
addition to the Asian Development Bank (ADB), which was the initiator of the
project in the early years, the current major funding contributors are the World
Bank, several UN agencies such as the UNESCAP (United Nations Economic and
Social Commission for Asia and the Pacific), the World Health Organisation
(WHO) and the United Nations Development Programme (ADB, 2007b). As
Brunthiaux (2008) points out, these international partners are partners cooperating
and coordinating the socio-economic development throughout the basin.

As a result, the volume of funds mobilised for the GMS Development Programme
has gone from 2,615.9 million dollars in the period of 1992–1999 to 4,156.3 million
dollars in the period 2000–2006, in addition to the value of long-term financing
(1992–2006) of 6,772.2 million dollars (ADB, 2007b, p.34).

With respect to the high developmental potential of the GMS, the extended notion
of regional engagement has been introduced seriously at University C, to gain
advantages from resources mobilisation as well as partnership building
opportunities arising from this international development project. As discussed
previously, this is evidenced by the university having implemented an
international regionalisation aim within the institutional mission in addition to the
university's traditional Northern regional mission. This finding supports Simonyi
(1999) who indicates that regional contexts are not limited to national territories;
rather, the territory can be formed by a cross border territoriality.

Accordingly, regarded as having high potential for sharing international mobilised
resources, the GMS was claimed by University C managers and staff as a potential
incentive in the search for research funding and cross border academic
co-operation. As one member of staff mentioned:

> 'It is the global trend, actually. Regionalisation in terms of the
> globalisation means cross-border territoriality. For the GMS, in order to
> foster the regional development, academics with qualified knowledge
> about the area can have the advantage of being invited to join a range
> of developmental projects.' (Participant: C-6)

The above statement is consistent with a recent report of the ADB (2007b) indicating that Thailand is one of the major contributors to the GMS development programmes, particularly in terms of professional and technical expertise in various areas.

As another supporting evidence, academic members of staff were attracted by the potential of the GMS for presenting the university with an international face. Consistent with existing literature (*e.g.* Bramwell and Wolfe, 2008; Charles, 2003; OECD, 1999), the building of international connections is commonly a strategy to enhance a university's international recognition, which is essential for the university's rank in today's academic and research community:

> 'The thing is, in order to have a good international rank, you are expected to present your work internationally. I quite agree with the university trying to encourage academic staff to work on GMS interests. This would attract more not only national but also international sponsors. The raise of international sponsorship to foster academic capabilities is good for the university rank.' (Participant: C-4)

Consistent with the above view, the President remarked that, by engaging with this international co-operative area, the GMS regional resources could be mobilised to benefit Thailand in general and the North in particular:

> 'It [the original idea of the GMS regionalisation] is about resources mobilisation and cross-boarder co-operations among member countries. To take part in GMS projects could in turn benefit not only the North but also Thailand through economic, cultural, traditional and educational collaborations.' (Participant: C-1)

4.4 UNIVERSITY REGIONALISATION: THE DISCUSSION

The different interpretations of 'region' given by participating academics from the three studied universities may be summarised as follows:

> **University A**:
> The 'region' is the whole country with little recognition of the region as a more confined physical external entity. The main service territory hosting targeted recipients of academic service indicates the core territory, regarded as central for national economic and social development.

University B:
The 'region' is defined by clear geographical, economic, and cultural factors. Both regional identity and service territory indicate the South of Thailand.

University C:
The 'region' is defined by physical geography hosting specific characteristics of economic and social needs, which extends beyond natural boundaries. The regional agenda indicates the Greater Mekong Subregion (GMS) with the North of Thailand geographically taking a part in and presenting a potential development within this international region.

Given findings from the three sites, it can be argued that interactions between academic activities and the surrounding region are to be found, regardless of whether academic staff are aware of any regional commitment in the form of either 'a regional identity' or 'a university regional agenda'. Notwithstanding this point, to have a clear idea of a regional commitment is preferable for the development of regional service as it helps to inform the staff not only about expectations of their roles but also the potential assets to input into their mainstream works of teaching and research. Based on the research's empirical findings, this section further discusses these propositions.

4.4.1 ACADEMIC FUNCTION IN THE SURROUNDING REGION

Providing a comprehensive range of degree programmes, the three universities are basically the sources of 'universal' and 'generalised' knowledge. This is consistent with Laredo (2007, pp.451–452), who explains that '[universities] are universal because they cover the whole spectrum of training activities and thus the range of diplomas, and generalised because they are transversally covering the whole spectrum of disciplines'.

Notwithstanding the provision of universal knowledge, this chapter showed that academic members did not limit their activities to be involved with only codified generalised knowledge; rather, by considering their acknowledgement of regional needs as well as the way they input regional assets to enhance their mainstream work, these staff evidently developed particular knowledge being 'codified in local' to the region (Lundvall, 1996, p.10).

Additionally, taking advantage of their specific location, they also functioned as the facilitator of 'tacit knowledge transfer' in the RISs. These findings agreed with

several previous studies in developed systems (*e.g.* Audretsch and Lehmann, 2005; Kitagawa, 2004; OECD, 2007; Puukka and Marmolejo, 2008) confirming that specific knowledge of places could enhance the competitive advantage of the production capacity of the geography.

With respect to the researcher's argument in Chapter 2 about Thailand facing the risk of becoming forever a follower[33], findings in this chapter showed that the provision of academic services to regions and the use of regional assets could help make Thailand step out of this risky path. To explain further, by getting involved with either regional needs or regional asset usage, academic staff are practically facilitating the RISs, resulting potentially in new form of knowledge that match Thailand's own needs and socio-economic characteristics.

4.4.2 SIGNIFICANCE OF THE REGIONAL AGENDA

Being underpinned by a clear regional agenda, the provision of academic services in Universities B and C was carried out with not only a clearer targeted service territory but also a clearer knowledge of the potential assets to be used in the activities than that in University A.

Bearing in mind the high status of these universities, it can be claimed that **to have a targeted service territory, or a clear regional agenda, would not lessen the university rank** as long as the quality of knowledge served was set as a priority of the institutional agenda. This is evidenced by the ranks of Universities B and C, similar to that of University A, being among top ten universities of Thailand[34].

It is therefore suggested that 'a regional university' should be regarded as 'a university located in its region' without being seen as a lower ranked university. Agreeing with this, Duke (2000, p.61) asserts that:

> 'If a wide range of different demands is to be met, different universities need to play different roles, and to be valued for making different contributions.'

4.5 CONCLUSION

This chapter discussed academic perceptions towards university regionalisation. Empirical data revealed that not all academic staff were aware of a regional

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[33]As discussed in Section 2.1.6 (p.23).

[34]As ranked in 2006 by the CHE.

identity. Notwithstanding this fact, regardless of whether academic staff recognized any regional commitment, the university's surrounding proximity was found as hugely significant to academic activities in all the three sites; this geography contributed not only to social and economic needs but also to material and non-material assets to input into mainstream academic activities.

With respect to empirical findings, various aspects of the regionalisation of the three universities are summarised in Table 4.1:

TABLE 4.1: University Regionalisation of Three Thai Universities

Dimensions	Research Sites		
	University A	University B	University C
Historical development	Serving Thailand	Serving the South	Service the North
Locality	Bangkok City	Hat Yai City	Chiang Mai City
Locality character	Urban	Urban	Urban
Regional identity	None	The South	The North
Institutional targeted service territory	Not specified	The South	The GMS
Physical geographical proximity	The Capital city	The South	The GMS
Advantage of location[**]	The Core	The South	The GMS
Key material assets	Mobility of large-scale economic resources, assets of the Core	Natural resources, public and private enterprises based in the South	Natural resources, public and private enterprises based in the North
Key non-material resources	Connections with state authorities and private enterprise, richness of traditional and cultural diversity, the capital profile	Southern traditions and cultures, connections with regional state authorities and private enterprises	Northern traditions and cultures, the Lanna history shared with GMS neighbouring countries, connections with regional state authorities and private enterprises

Note: GMS = the Greater Mekong Subregion, [**] Territory of the location where advantages to perform academic work are taken.
Source: developed by the author.

Bearing in mind that the researcher employed the grounded theory approach to find the answer to **what** and **how** questions, a theoretical conception explaining university regional profiling of relevance to academic service is eventually developed as presented in Table 4.2:

TABLE 4.2: Theoretical Code of Regional Profiling Proposition

What	How
The university's region	The **regional proximity** hosts **regional needs** and **regional assets** used as inputs to **academic activities**.

Note: A detailed coding structure comprising all developed codes, categories, coding families and theoretical codes is provided in Appendix E.

Source: developed by the author.

Based on academic understanding towards their regions discussed in this chapter, the next chapter deals with the university institutional profiling.

INSTITUTIONAL PROFILING

5.0   INTRODUCTION

This chapter is the second part of the findings series. Following the discussions on regional profiling presented in the previous chapter, the chapter deals with university institutional profiling of relevance to the delivery of academic services to the university region. The presentation of this chapter is in line with three questions:

1. How are public university organisations organised to serve academic staff delivering academic services?

2. What institutional factors affect academic performance of regional services?

3. How do these factors affect the performance of individual staff?

As mentioned in Chapter 3 regarding the selection of research sites, the three selected universities were among traditional LAUs preparing to become autonomous institutions. As pointed out by Sangnapaboworn (2003), university autonomy granted to these universities is to help them to move away from the state bureaucracy, or the centralised one-size-fits-all system; to develop their own system of administration is anticipated to help these universities to be more flexible and responsive to the changing economic and social needs. Consistent with this anticipation, Rhoades (2001) argues such bureaucratic system as being detrimental for optimizing university productivity.

Based on this background, the three selected universities are responsible for their own organisational and academic management. By looking at the academic services task, it was found that these universities interpreted the task in their own

way in terms of the services to be undertaken, to whom the services should be delivered and how to perform and to deliver the services. As a result, various aspects regarding the university's institutional profiling of relevance to regional service performance of individual staff were found, which this chapter is going to discuss.

The chapter is divided into four sections. The first section presents expectations at policy-making and institutional level on academic services, which significantly shapes the formation of academic service expectations among academic staff in the three universities. The second section presents organisational structures relating to academic services units developed in the three universities classified by the unit status in the university's organisational structure. The third section deals with managerial aspects of academic involvement in delivering regional services. Finally, the fourth section discusses the university's institutional profiling based on research findings presented throughout the chapter.

5.1 INSTITUTIONAL EXPECTATIONS

With public university status, the three studied universities were inherently directed by government policy and tied to public commitment. As introduced in the first chapter, current government policy on university engagement with society primarily targets the sub-national level, particularly the surrounding society hosting the university (OEC, 2003a; ONESQA, 2006)[35]. In order to formally execute the policy, a university performance evaluation system using key performance indicators (KPIs) has been adopted (Suttiprasit, 2002). These indicators are government tools developed as part of the Government educational quality assurance (QA) system, initiated in 2003, to serve internal and external QA of educational institutions (ONEC, 2002).

According to Rhoades (2001, p.626), the use of KPIs is a 'performance-based' model with an 'efficiency focus'. To explain the characteristic of KPIs, Taylor (2003, p.93) describes this tool as a kind of 'authority tool' that comprises 'requirements imposed through the legal authority of Government'. In the Thai HE system, the review of KPIs is the responsibility of the Office of National Educational Standards and Quality Assessment (ONESQA), an independent agency affiliated with the MOE.

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[35]See also Section 1.4.1 (p.6).

There are seven standards developed for HEIs quality assessment: (1) Quality of Graduates; (2) Research and Innovation; (3) **Academic Services**; (4) Preservation of Arts and Culture; (5) Institutional and Personnel Development; (6) Curriculum, Teaching and Learning; and (7) Internal Quality Assurance (ONESQA, 2006). Being included in these seven areas of educational QA, academic services are an important part in the government's expectations of HEI operations. In detail, Table 5.1 below outlines the five mandatory components of a university's academic services. Public universities are required to present their service performance covering these areas.

TABLE 5.1: Key Performance Indicators of Academic Service

1. Processes and mechanisms to provide academic services to the society mentioned in the objectives of the institution.
2. The percentage of full-time faculty who are involved in providing academic services as consultants, thesis committees outside the institution, academic or professional committees at the national or international level in proportion to the number of full-time faculty.
3. The percentage of academic and professional service activities/projects responding to the needs for development and strengthening the society, community, nation and the international community in proportion to the number of full-time faculty.
4. The percentage of satisfaction levels of those who receive services from the institution.
5. The number of academic and professional service centres nationally or internationally recognized.

Note: The term 'faculty' used is equivalent to the term 'academic staff' used in this thesis.
Source: the CHE (2008) and the ONESQA (2006).

As seen in Table 5.1 above, academic services are not only services to society but also professional services. The term 'academic and professional service' used in this context refers to a much wider range of work compared with Colbeck (2002), who explains that services are delivered to the academic community using academics' professional expertise, such as reviewing research papers and hosting academic conferences and seminars; instead, the term used refers to both services to the academic community and those to the society outside the university.

Outlining the government's expectations of their university's service performance, the importance of the KPIs was recognized by both academic managers and staff. This was reflected by the following remarks:

> 'The KPIs have a huge impact on the university ranking and state funding.' (Participant: A-1)

'It is really important that we perform the work to fulfil what are required by the CHE [the Commission on Higher Education, Ministry of Education]; these requirements are listed in the KPIs.' (Participant: C-8)

'The CHE wants universities to report their performance using the same standardized pattern; this is the reason that we have to follow what are listed in the KPIs.' (Participant: B-7)

Accordingly, at the operational level, two key components of the organisational setting concerning the university service function were emerged from the views of academic members interviewed; one was the organisational structure and the other was the academic management. These components are dealt with in the following two sections.

5.2   ORGANISATIONAL STRUCTURE OF SERVICES

According to the site selection criteria discussed in Chapter 3, the three selected universities provide a comprehensive range of academic disciplines classified into the three groups of social sciences and humanities, S&T and health sciences. Based on this character of academic provision, academic services in these universities were expected to cover a comprehensive range of disciplines.

Appearing in the organisational structure, various service units are developed within all three universities to align administrative resources and structures to promote academic services in the university (Weertz and Sandmann, 2008). Considering the structure, the university organisation forms a part of 'context beliefs', which Colbeck and Wharton-Michael (2006b, p.21) explain as 'perceptions of whether or not one's environment provides needed support'. By examining organisational structures of the three universities, three areas of discussion can be identified, including: (1) the formation of academic service units, (2) communication channels of regional service and (3) significance of the regional agenda. The discussion is presented as follows.

5.2.1   THE FORMATION OF ACADEMIC SERVICE UNITS

Diverse service units requiring academic involvement were developed in the three universities studied. With regard to the position in the organisational structure, these units could be classified into three groups: (1) centralised units led by the university senior managers, (2) faculty affiliated units, and (3) autonomous units affiliated to the university. Table 5.2 illustrates the typical structure of these units:

TABLE 5.2: Types of Service Units
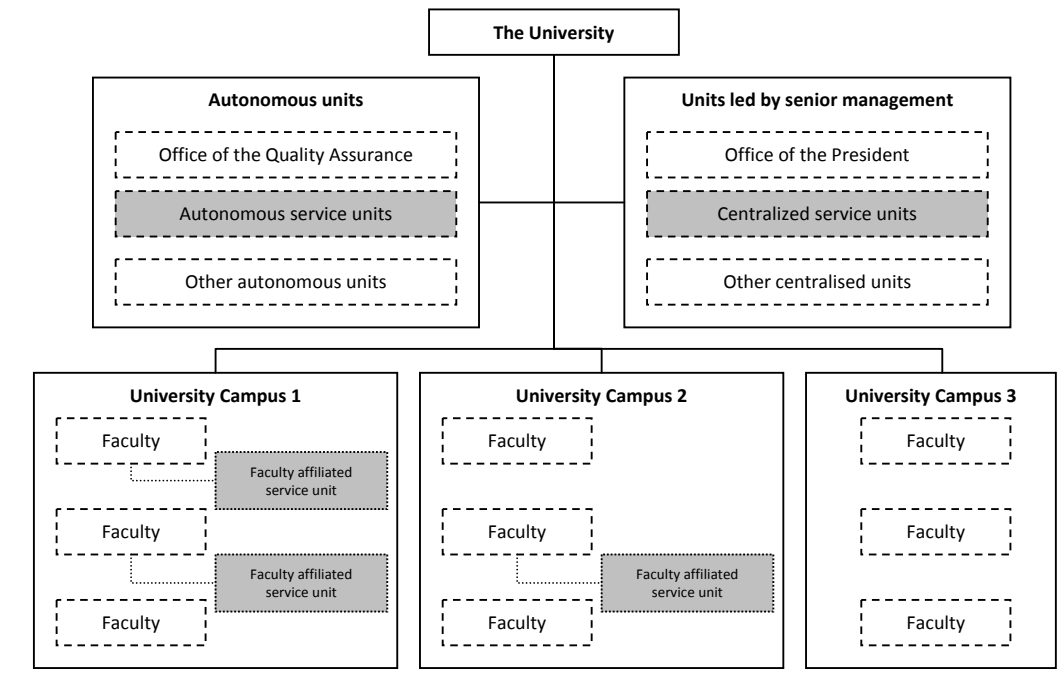
Source: developed by the author.

With respect to these service units being located throughout layers of the organisational structure, they are seen as 'an enhanced developmental periphery' of the university, concerning that they operate 'on the periphery of the traditional structure, reaching across old boundaries, and linking up with outside interest' (Clark, 2000, p.15).

Recalling the investigatory rationales of this research discussed in Chapter 2, Thai traditional LAUs are facing challenges of institutional organisation as they try to overcome their previous failures in serving the needs of the country[36]. The formation of service units in the three universities studied can therefore be claimed as the organisation that allows service activities to help enhance the university's academic operation. To reinforce this argument, the enhanced developmental periphery is recommended by Clark (1998) as one of the five pathways[37] of a university transforming into a proactive, responsive university.

Additionally, agreeing with Weertz and Sandmann's study (2008) that examines institutional approaches to community engagement of three research universities

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[36]See also Section 2.2.4 (p.30).

[37]As discussed previously in Chapter 2, the other four pathways are a strengthened steering core, a diversified funding base, a stimulated academic heartland and an embracing entrepreneurial culture.

in the developed American system[38], the formation of service units evidences the university's attempt to promote systematic services. Tables 5.3, 5.4 and 5.5 present service units in the three universities by the unit status in the organisational structure:

TABLE 5.3: Academic Service units in University A

Centralised Academic Service units		
	Unit	**Key Activities**
1	Institute for Continuing Education and social Services	Promotion of the Government's life-long learning policy
2	Human Resources Institute	Studies labour force planning in public and private sectors
3	Institute of East Asian Studies	Studies social and economic subjects of the east Asian region
4	Language Institute	Providing language services to the university staff, students and the public
5	[University A] Research and Consultancy Institute	Research and consultancy services match-making
Faculty Affiliated Academic Service units		
	Faculty	**Academic Services Unit**
1	Faculty of Law	Centre for Legal Training
2	Faculty of Commerce and Accountancy	Business Research Centre; Business Consulting Centre; Business Incubator Centre; Journal of Business Administration; Journal of Accountancy
3	Faculty of Political Science	Centre for Political Database and Information
4	Faculty of Economics	Economic Research and Training Centre
5	Faculty of Social Administration	Centre for Practical Public Administration; Criminology Research Centre; Asian Centre for Tourism Planning and Poverty Reduction; Centre for Public Services Training; Centre for Public Labour Force Planning; Centre for Community Administration Studies
6	Faculty of Liberal Arts	n/a
7	Faculty of Journalism and Mass Communication	Office of Public Relations
8	Faculty of Sociology and Anthropology	n/a
9	Faculty of Engineering	Technical Engineering Properties Testing Programme
10	Faculty of Medicine	Social Services Office
11	Faculty of Dentistry	Dental Institute
12	Faculty of Allied Health Sciences	n/a
13	Faculty of Nursing	The Early Childhood Development Centre; The Health Promotion Centre
14	Faculty of Architecture and Planning	Centre of Academic Services, Research and Design
15	Faculty of Fine and Applied Arts	n/a
16	Faculty of Public Health	Centre of Academic services for Health Promoting Environments
Autonomous Academic Service units		
	Unit	**Participating Faculties**
1	International Cooperation Study Centre	All faculties
2	Language Institute	Faculty of Liberal Arts

Note: n/a = not applicable.
Source: developed by the author.

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[38]These universities are traditional land-grant research universities namely Southern State University (SSU), Midwest State University (MSU) and Great Lakes State University (GLSU).

TABLE 5.4: Academic Service units in University B

	Centralised Academic Service units	
	Unit	**Key Activities**
1	Institute of Research and Development	Promotion of interdisciplinary research and development
2	Centre for Sciences Equipments	Scientific equipments provision and testing services
3	Institute for Continuing Education	Promotion of the Government's life-long learning policy
4	Institute for Coastal Resources	Interdisciplinary research services concerning coastal resources of the South
5	Centre for Academic Services	The University's academic services public connections unit
	Faculty Affiliated Academic Service units	
	Faculty	**Academic Services Unit**
1	Faculty of Engineering	Consultant Programmes on: Wastewater analysis; Polymer Testing; Environment Feasibility Studies; Production Planning and Control
2	Faculty of Agro-Industry	Agro-Industry Development Centre for Export; Centre for Research and Development on Halal Food Products
3	Faculty of Medicine	Academic Promotion and Development Unit
4	Faculty of Dentistry	n/a
5	Faculty of Management Sciences	Southern Securities Market Information Centre
6	Faculty of Economics	n/a
7	Faculty of Traditional Thai Medicine	Southern Centre of Thai Traditional Medicine
8	Faculty of Natural Science	Rubber Products Technology Transfer Centre; The Membrane Science and Technology Research Centre; The Natural Products Research Unit; The Centre for Biodiversity of Peninsular Thailand; The Centre for Genomics and Bioinformatics Research
9	Faculty of Natural Resources	Small Ruminant Research and Development Centre; Tropical Fruit and Plantation Crops; Agricultural Systems, Resources and Environmental Research Centre; Natural Biological Control Research Centre; Oil Research and Development Centre
10	Faculty of Environmental Management	Research Centre for Community-Based Environmental Management; Environmental Laboratory Centre
11	Faculty of Nursing	Nursing Learning Resources Centre; Eastern Wisdom and Holistic Health Care Centre
12	Faculty of Phamaceutical Sciences	Drug Information Centre; Drugstore; Institute of Southern Herbs
13	Faculty of Liberal Arts	Academic Services Unit
14	Faculty of Law	n/a
15	Faculty of Medical Technology	n/a
	Autonomous Academic Service units	
	Unit	**Participating Faculties**
1	Business Incubator Centre	All Faculties
2	Institute of Research and Development for Health of Southern Thailand	Faculties in Health Sciences Disciplines
3	Institute of Research and Development for Health of Southern Thailand at [University B] Hospital	Faculties in Health Sciences Disciplines
4	Growth Triangle Studies Centre (Indonesia-Malaysia-Thailand Growth Triangle Studies Centre)	All Faculties

Note: n/a = not applicable.
Source: developed by the author.

TABLE 5.5: Academic Service units in University C

	Centralised Academic Service units	
	Unit	**Key Activities**
1	Institute of Research and Development for Social Sciences	Promotion of research and development in social sciences disciplines
2	Institute of Research and Development for Sciences and Technology	Promotion of research and development in sciences and technology disciplines
3	Institute of Research and Development for Health Sciences	Promotion of research and development in health sciences disciplines
4	University Academic Services Centre	The University's centre administration of public services.
	Faculty Affiliated Academic Service units	
	Faculty	**Academic Services Unit**
1	Faculty of Pharmacy	Northern Research Centre for Medicinal Plants; Drug Information Centre; Central Instrument Unit
2	Faculty of Agriculture	Highland Research and Training Centre; Mae Hia Agricultural Research Station and Training Centre; Hariphunchai Longan Study and Development Centre; Agricultural Biotechnology Research Centre
3	Faculty of Dentistry	Institute for Dental Continuing Education; Research Club
4	Faculty of Associated Medical Science	Clinical Services Centre
5	Faculty of Business Administration	Faculty Public Services Unit
6	Faculty of Nursing	Faculty Public Services Unit
7	Faculty of Medicine	n/a
8	Faculty of Humanities	Faculty Public Services Unit
9	Faculty of Fine Arts	Faculty Centre of Academic Services and Promotion of Artistic and Cultural Affairs
10	Faculty of Science	Faculty Public Services Unit
11	Faculty of Engineering	Centre of Research and Academic Services
12	Faculty of Education	n/a
13	Faculty of Economics	Financial & Investing Centre; Human Resource Development Centre; Centre For Qualitative Analysis; The Community Economy Development and Research Centre
14	Faculty of Social Sciences	n/a
15	Faculty of Veterinary Medicine	Veterinary Public Health Centre for Asia Pacific
16	Faculty of Agro-Industry	Faculty Academic Services Unit
17	Faculty of Architecture	Office of Culture and Community Services
18	Faculty of Mass Communication	n/a
19	Faculty of Law	n/a
20	Faculty of Political Science and Public Administration	Centre for Community Administrative Studies
	Autonomous Academic Service units	
	Unit	**Participating Faculties**
1	Drug Store	Faculty of Pharmacy
2	Postharvest Technology Innovation Centre	Faculty of Agriculture
3	International Liaisons	All Faculties
4	Language Institute	Faculty of Education; Faculty of Social Sciences
5	Institute of Technical Engineering Properties	Faculty of Engineering
6	Veterinary Hospital	Faculty of Veterinary Medicine
7	Institute of Regional Veterinary Education	Faculty of Veterinary Medicine
8	Research and Development for Health of Northern Thailand	Faculties in Health sciences Disciplines
9	Institute of Social Sciences Academic Services	Faculties in Social Sciences Disciplines
10	Institute of Sciences and Technology Academic Services	Faculties in Sciences and Technology Disciplines
11	Institute of Health Services	Faculties in Health sciences Disciplines

Note: n/a = not applicable.

Source: developed by the author.

Hereafter, service units and their formations within the university organisation presented in the three tables above are to be borne in mind while discussions on the institutional profiling are made. By so doing, comparisons of the institutional organisation across the three universities will also be dealt with in this chapter.

5.2.2 COMMUNICATION CHANNELS OF REGIONAL SERVICES

By considering the organisation of service units within the three universities, there are four modes of possible channels through which academic staff might be involved in academic services to the region (Figure 5.1).

FIGURE 5.1: Communication Channels of Regional Service
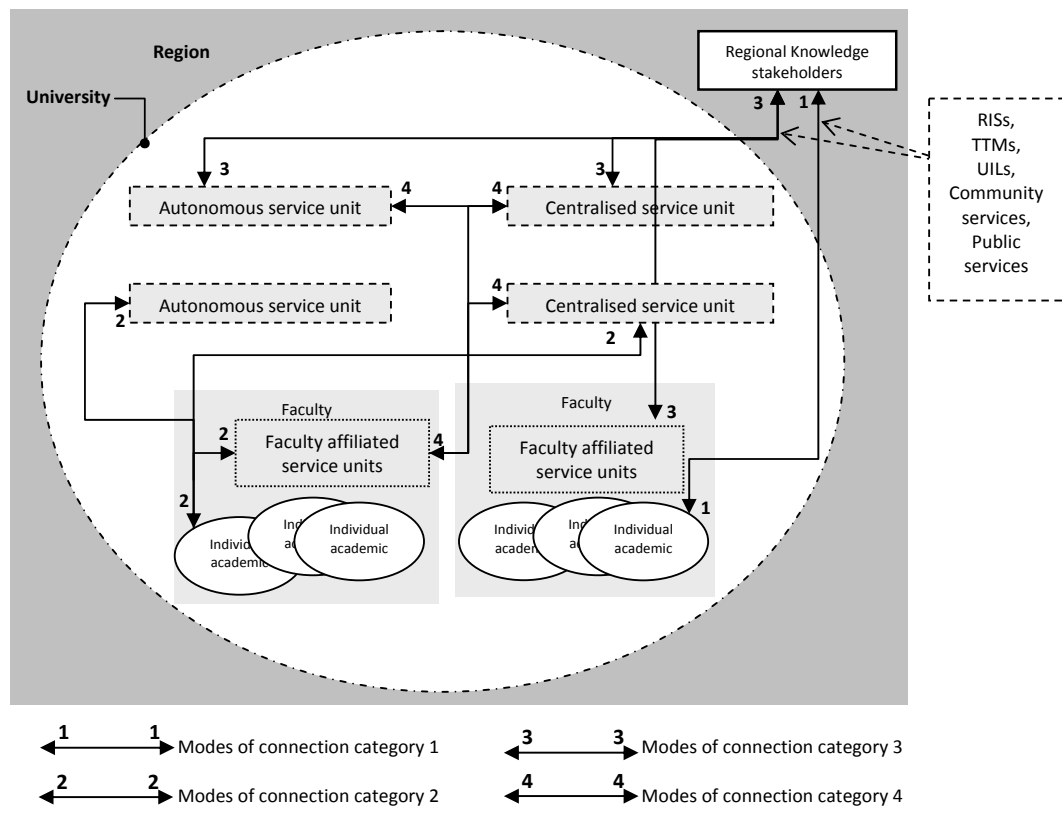
Note: RIS = Regional Innovations Systems, TTMs = Technology Transfer Mechanisms, UILs = University-industry linkages.

Source: developed by the author.

In detail, communication partners within each of the four modes are as presented in Table 5.6:

TABLE 5.6: Communication Partners of Regional Service

Mode	The Connection	Connection Partners
1	Individual academic's personal basis connection	Individual academic - Knowledge stakeholder
2	Individual academic's connections with university service units.	Individual academic - Centralised unit Individual academic - Faculty affiliated unit Individual academic - Autonomous unit
3	Connection with outside entity made on institutional basis.	Regional knowledge stakeholders - Centralised unit Knowledge stakeholder - Faculty affiliated unit Knowledge stakeholder - Autonomous unit
4	Internal connection made across service unit.	Faculty affiliated unit - Centralised unit Faculty affiliated unit - Autonomous unit Centralised unit - Autonomous unit

Source: developed by the author.

Explanations of the four categories are given as follows:

1. *Individual academic's personal basis connection*: this mode refers to academic staff delivering services on a personal basis:

   'They [service recipients] came to me as they heard about my reputation.' (Participant: A-3)

   'Academic staff would be approached directly via existing personal contact they have with outside entities. Of course, for new staff, they need some time for their connection buildings.' (Participant: B-2)

   'It is an advantage of anthropologists to be directly contacted as anyone who comes to us knows well what area each individual works on.' (Participant: C-6)

2. *Individual academic's connection with university service unit*: this mode refers to academic connection with university service units sharing their interests in regional issues and using the unit's resources for the performance of service:

   'We organise a computer summer camp for high school students every year. We use the faculty building as the camp venue as not many ordinary courses run during summer holidays.' (Participant: A-7)

   'I work with staff from other faculties as we run many spin-off projects to develop demonstrative business models for local firms' (Participant: B-2)

3. *Connection with outside entity made on an institutional basis*: this mode refers to academic being approached on an institutional basis through a university's centralised unit, the faculty's affiliated unit or an autonomous unit:

> 'The director [of the university research and consultancy service] have to do an internal research about the university manpower as they distribute grants and funding information to relevant faculties. However, it is more often the case that the director has to ask certain staff personally due to responds to the information circulation is very low.' (Participant: A-1)

> 'Because of our speciality, when people from the outside want someone who is good in the Thai fine arts, they come to us. Then I would ask my colleagues to take up the project if they were available.' (Participant: C-5)

4. *Internal connection made across service units*: this mode refers to academic staff being approached by the faculty's affiliated unit on behalf of either a university centralised unit or an autonomous unit. This mode can also be seen as an internal communication channel that helps match academic staff to regional needs:

> 'The university itself has many service units, such as community research units. They try to get academics from various faculties together so they sometime send the faculty an invitation for joining their activities.' (Participant: B-8)

5.2.3 SIGNIFICANCE OF THE REGIONAL AGENDA

The data collected from the three research sites showed that not all universities conceived the regional agenda as important to the mission; while University B and University C indicated the regional agenda as an important part of their academic service missions, University A had significantly less focus on serving this geographical level of society. In this regard, this finding is consistent with various conceptions reported by academic members interviewed, as presented in the previous chapter, concerning the regionalisation of their universities; the difference in regional agenda across these universities was found as in accordance with their diverse historical developments, regional resources, and the characteristics within the society and economic surroundings of each university.

Accordingly, despite typical structural communication channels of regional services were found, as presented in the previous section, the difference in regional agenda at the institutional level appeared to affect academic involvement

in service activities. Bearing in mind the university's service mission and the formation of service units within each university, there were some differences at the operational level regarding the ways in which individual staff made use of their university's designated system, as the following discussions show.

5.2.3.1 University A

In response to the government's policy, University A interprets the university's service role in terms of 'public services' aimed at serving public needs in a wide range of areas using the university's academic resources. As quoted from the university mission statement:

> '1. [University A] aims to be the leader of academic services.
> 2. Thai citizens are to obtain knowledge services efficiently, sufficiently and ethically delivered.
> 3. Thai citizens are to receive quality health services.'

The above mission is stated without specifying any service territories. This is consistent with the views of the university academic staff seeing their university as a capital university founded to serve the national needs, with very little recognition of the region as a more confined physical external entity reported[39].

Despite the mission statement above, however, there were very few mutual connections developed in terms of policy sharing across the service units and academic departments. From the staff's point of view, this is due to the institutional mission that was developed without a clear targeted service territory:

> 'The university wants us to serve the country, no specific scope or areas the services to be delivered. It sounds like the service work is not quite a serious obligation, is it?' (Participant: A-8)

Even in those centralised units led by senior managers, a barrier was reported concerning academic involvement. The case of the Research and Consultancy Institute was provided as an example, as another Vice President remarked:

> 'Our research centres committee have good connections with a range of entities including government authorities and public enterprises. Throughout the year, a number of projects come to the centres demanding our services, mostly consultancy followed by research services. For these outside projects, timing is a key concern. The centre normally circulates the project information to relevant departments requesting academic involvement. However, there is always a low response rate.' (Participant: A-2)

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[39]See also Section 4.1.1 of the previous chapter (pp.117–118).

5.2.3.2   University B

Significantly, University B takes into account social and economic needs of southern Thailand; the university aims to promote the competitive capacity of the region in both the national and global contexts. By doing so, the university acts as an 'open-source of knowledge' for the South providing academic services across the wide range of competency of the university academic personnel. As stated in the university services mission:

> '[University B] has set the direction of the policy and development on academic services such that it will create an academic context that is widely opened for the seeking of knowledge through a variety of formats, dimensions and missions, which will be integrated thoroughly and diversely. The provision of academic services will depend on the potential regarding the management of teaching, research and specialisation of each faculty/ department/ unit'.

Consistent with the policy addressed, a Vice President of University B stated that the management strategy to weave academic services into research was accomplished by the University offering financial support, allocated from the university budget, to a group of academic staff sharing the same field of expertise to set up a research and service unit within their faculty, regardless of how small the group was. The management team conceived these new developments as service 'cells' having the potential to be later developed as a unit or centre:

> 'The university encourages them [academic staff] to form a group of members and set up these cells within the department or faculty. By doing so, we offer some financial support too. If the cell went well, it would become a stronger and more stable regional research unit.' (Participant: B-1, a Vice President)

As a result, several research and service units of different sizes were developed and registered in the university services database. The management of these units was decentralised as the cell leader was granted freedom to allocate administrative resources to support research and training activities in the area chosen by the cell.

At central level, there is also a small powerful unit led by the university's senior management known as the Centre for Academic Service, responsible for the fulfilment of the service mission. This unit was vital as it promotes short lines of administrative communication from the central management to departmental units, known as 'centralised decentralisation' (OECD, 1999, p.44, likens to Clark, 1998).

Bearing in mind that University B has a very strong regional agenda within the South of Thailand, this unit functions as the institutional mediator of the university's academic services to the regional stakeholders. As one middle level manager explained:

> 'We focus on research because we want to be a research-oriented institution. To do so, as we are southern university, we promote our service units to deal with regional issues. For some centres being very strong in a particular field, we would promote them as a centre of excellent in that field.' (Participant: B-2, a Programme Director)

5.2.3.3 *University C*

As discussed in Chapter 4, the understanding of University C academic members towards the university's regional agenda was found as relatively more complex in terms of the engagement conception[40]; 'the regional identity' and 'the targeted service territory' conceived by these staff referred to two different territorial scales, namely the North and the GMS.

Despite the multi-level approach reported, the regional agenda at the institutional level of relevance to service mission only focused on the North, not the multi-level territory. In other words, notwithstanding the GMS being stressed as being centred to the wider extent of the university regional conception, it appears that the GMS was more the concern of the university's international affairs mission, not of academic services. As one reflected:

> 'The GMS regionalisation is originated from the idea of international regionalisation. It reflects that the university wants to be more international-oriented. To think about regional service, I think about serving the North, for which the university was founded to serve at the first place' (Participant: C-6)

In terms of organisational structure, similar to the other two site Universities, several service units were developed[41]. Among these units, there is a centralised unit, namely 'the University Academic Services Centre' established as part of the Office of the President. The function of the unit is to over see academic services undertaken within the university. As set out by the President:

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[40]See also Section 4.3.1 (pp.126–129).
[41]See also Table 5.5 (p.142).

> 'Overseen by the University Academic Services Centre, various centres of excellence, that cover a wide range of disciplinary areas, are developed in this university. These centres are assigned to promote regional services through the academic excellence of their core areas.' (Participant: C-1)

At faculty level, almost all faculties have their own affiliated service units. Less than half of them have units with more specific service objectives than those stated as the five general areas stated in the service KPIs. To compare, unlike those 'cells' developed in University B, these faculty affiliated units do not specify any targeted service territory or key activities of relevance to the capability of academic members within the faculty. This unit formation is consistent with the view from the management's point of view stating that it is the responsibility of academic departments to specify the service targets themselves:

> 'The university sets its mission and policy. Then, academic departments and academic member work their ways using the academic freedom.' (Participant: C-2)

Despite the management expectation, however, individual academic members reacted in a different way; they perceived this as the lack of institutional guideline for services performance. As an Assistant Professor of Anthropology stated:

> 'It is clear that we are the university of the North but it is not clear in terms of the activities of what we do, or how we do, to serve the region.' (Participant: C-6)

In summary, the lack of clear regional dialogues was considered as a key barrier preventing a better flow of communication in this university, despite academic members sharing a strong regional commitment.

5.2.4 FACULTY TARGETED KPIS OF ACADEMIC SERVICES

As an internal reviewing process before preparing the institutional report to be reviewed by external QA authorities, there were targeted KPIs set for every academic faculty. Bearing in mind that the use of KPIs focuses on the efficiency of academic performance (Rhoades, 2001), the targets set for the services KPIs help the management are used to 'judge' the services performed (Harloe and Perry, 2004). For this reason, the use of targeted KPIs of an individual faculty was found as the management message telling the faculty the institutional expectations of their performance (see also Figure 5.2).

FIGURE 5.2: Academic Involvement in Service
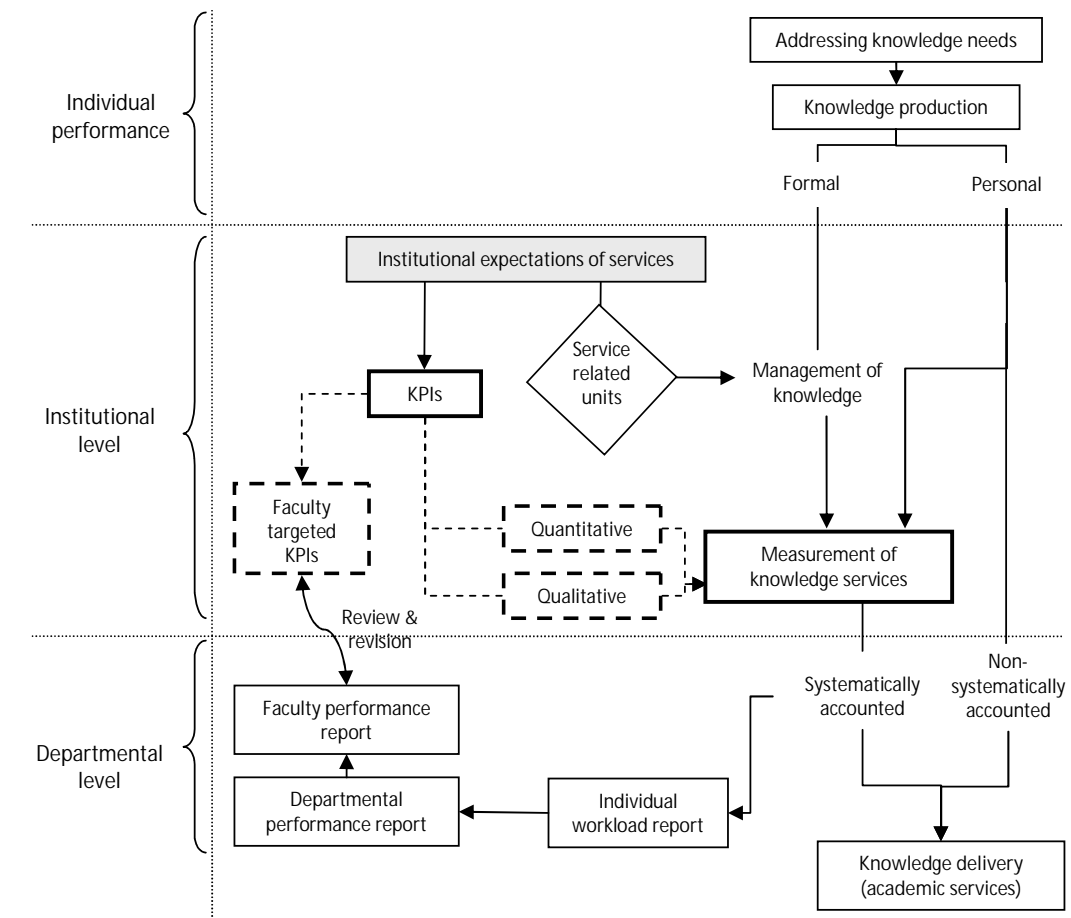
Source: developed by the author.

5.2.4.1 KPIs and Academic Departments

Recalling the first component of KPIs of academic service, processes and mechanisms to provide services are to be developed in accordance with the objectives of the institution[42]. As presented in the previous sections, the service mission of the three universities studied are reflected by the their formation of service units and the regional agenda each developed for themselves.

For academic departments, a response required was to perform services and prepare performance reports to be used in the services KPIs. Notwithstanding this concern, the reports were prepared by the academic departments across the university using diverse understandings of quantitative and qualitative measurements.

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[42]See also Table 5.1 presented previously (p.137).

However, the transparency, standardisation and accountability of both qualitative and quantitative measurement formats of service work were still questioned, particularly the comparability of quantitative measures used, such as 'the percentage of satisfaction levels of those who receive services from the institution' and 'the number of academic and professional service centres nationally or internationally recognized'.

Accordingly, a question was raised concerning the mean of the measures used. That is, it would be difficult to distinguish comparatively between 'good', 'mean' or 'bad' performances of the services reported by different academic departments. As one member of staff pointed out:

> 'It should been more clear how would each department, which we know they are all different in details, measure their works in order that the work later be evaluated by both internal and external audits. To me, using the tool [KPIs] without such a clarification is a mess.' (Participant: B-8)

And, similarly:

> 'No way the same measurements apply to all disciplines. For examples, you work on one project and it takes time by nature. Then, once the project is finished, it is scored the same to other projects taking less time, is that fair in terms of the evaluation?' (Participant: A-5)

As a result, the accountability and standardisation of services reports were also questioned:

> 'It should have looked in more details of the nature of different departments from different disciplinary lines. Performance evaluation needs an in-depth understanding of disciplinary natures.' (Participant: A-4)

5.2.4.2 The KPIs and Individual Staff

Gunasekara (2006b) comments on the common characteristics of performance indicators used in Australia in assessing academics' regional engagement, noting that the most of the KPIs are developed in an objective sense. Agreeing with this, Davies and Thomas (2002, p.188) point out that the use of performance indicators in the UK introduces 'the new norms of performance' to academic members in traditional universities whereby the indicators themselves are 'the new objective measures of performance', notwithstanding they agree with Thomas (1990) that

academic service is difficult to define for the performance measurement in this sense.

Similar to these previous studies conducted in developed systems, the use of KPIs in the Thai universities studied also appeared to overlook how individual staff made sense of the dilemma they were facing. The case of the UK is particularly reinforced by Newby (1999), whose study is emerged from the quality debate in this system with respect to the establishment of the Quality Assurance Agency (QAA)[43]; his study reveals the potential danger of the indications of quality, although slowly happening, that 'the process of monitoring becomes more important than what is monitored' (p.274). The finding is consistent with his initial argument stating that the debate about the indications and its impact on the organisation of universities is 'more about structures and less about processes' (p.262). In the case of Thai universities studied, a similar concern was also present. As reflected by one participant:

> 'It is not always clear how we claim service works following the KPIs. I mean, all the indicators have been defined by the government authority telling us how we would measure the activities to make them counted. The definitions do not quite fit all the activities though'. (Participant: C-7)

Notwithstanding this comment, in practice, the KPIs of service lack their power on influencing individual staff to participate in services for several reasons, other than the question about the indicators themselves.

Firstly, diverse areas of expertise and academic freedom were found to lead to a culture of interdependence among individual academics; these individuals mainly work independently from others. Accordingly, this culture appeared to challenge the use of services KPIs in imposing public engagement on academic staff; they lacked serious awareness of how their performance in service to the community would be measured:

> 'How do we know those numbers are good? Why do we share similar targets with the Faculties such as Engineering, Medicine and Education? Can anyone explain that? I think the system itself is good but I am not sure about its direct influence on individual academics, at least on myself'. (Participant: B-5)

As another reason, academic staff, viewing those indicators as being set as the institutional targets, claimed not to have a direct responsibility making the

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[43]The QAA is an external quality monitoring agency charged by the UK Government (Taylor, 2003). The function of this agency is comparable to the ONESQA in the Thai HE system (Suttiprasit, 2002).

university meet the targets. Instead, academic managers, senior and middle levels, were to have the responsibility:

> 'Of course, there are KPIs which every department is expected to satisfy the numbers. It is the responsibility of departmental leaders to discuss, to negotiate, to encourage their colleagues to make the number look goods.' (Participant: B-3)

The above view reinforces the previous study of Liefner and Schiller (2008, p.289) that points out that 'internal evaluations and a reporting system for Key Performance Indicators (KPI) [in Thai universities] have not yet led to any consequences'.

5.2.4.3   *KPIs of Service: a not-yet effective Tool*

The use of KPIs is to be carefully used; otherwise, as Rhoades (2001) and Burke and Modarresi (2000) warn, it could be self-defeating in the QA systems that abandon the stress on quality and focus more on efficiency within a list of performance indicators. This proposition is evidenced by the view below:

> 'This system [KPIs] has not been introduced very long as we still have to learn about those 50-60 indexes, which use different measurements that could easily lead to confusion.' (Participant: C-3)

The key challenge of the adoption of KPIs was therefore to make the KPIs targets practical and applicable to the academic culture. This is supported by the following view:

> 'These indicators are imported from developed systems. We have heard of them for only during the past five or six years. In principle, they should be useful and help foster academic involvement in services. However, it is still a challenge to make the indicators sound practical to the staff.' (Participant: B-2)

To promote a practical development of the KPIs, Amey (2002) suggests that the tools require not only a change in institutional policy but also a change in departmental culture. Positively supported by management perceptions, it was understood that the university needed to allow adequate time, although this might take several more years, in the search for sufficient KPIs targets by taking into account practical applications in different disciplines.

> 'It [the use of KPIs] is not yet perfect. We are still learning how to use it well. The management is open to the staff's feedback and try to improve the policy making'. (Participant: A-1)

In the meantime, there is no clear punishment for academic departments not being able to meet the targets set:

> 'There is no formal punishment for KPIs failure, particularly for the services section. The university would rather look at the outcome of each faculty and department. Faculty deans are the one who report to the university the performance of their faculties and senior management always listen to them. If the target numbers are claimed to be not quite practical for the past evaluation period, amendments of targets might be adopted for the following period'. (Participant: B-1)

Additionally, as suggested by Burke and Modarresi (2000), the use of performance indicators is also a matter at 'system' level, not only at institutional level; quality concerns must be acknowledged by the Government authorities who review these indicators concerning the state allocation of funding. This is reinforced by an Associate Professor from University C:

> 'Improvement of performance measurements must take place at not only university but also the system level; this should be the responsibility of the ONESQA [Office of National Educational Standards and Quality Assessment].' (Participant: C-3)

5.3 ACADEMIC MANAGEMENT

Since the three universities are preparing to become autonomous institutions, their academic staff are therefore working in a transitional organisation regarding the ongoing implementation of an autonomous culture, which causes some anxiety about the university personnel management:

> 'It is not yet known whether it [university autonomy] would work well. For the university management, it would be great if it is certain about the government commitment to provide sufficient block grant together with the freedom granted. However, so far we do not know. In the meantime, we are educating our people about the new system and so many questions from them coming up and we [senior management] have to work out for the best answers.' (Participant: B-2, an academic manager)

In the meantime, since the state bureaucratic management had shaped the university organisational environment for several decades before the adoption of today's university autonomy, there exists a substantial aspect of bureaucratic characteristics in the organisation. This is due to universities being human-oriented organisations; the university business is mainly operated by human performance, which unavoidably involves beliefs and values. As one mentioned:

> 'I am not sure if it is going to work once the university becomes an autonomous institution. It seems like the old liquor in a brand new bottle. The bottle, or the new system, might look new but inside the bottle is the old personnel. At the same time, we keep adding some new liquor into the new bottle to mix the new with the old. It might be better or it might be worse. No one can tell for now; it takes time before we see some result.' (Participant: B-8)

With regard to the organisational transition, empirical data showed that academic staff faced forms of management pressures, both favouring and against, that influenced their services to the region. Discussions are provided as follows.

5.3.1 ACADEMIC EMPLOYMENT

Following the 1999 and 2002 NEAs, there was an enactment of the Act on Administrative Procedures for Civil Servants in Higher Education Institutions in 2003 (OEC, 2006b; ONEC, 1999). Since then, academic staff in public universities are facing a tremendous ongoing change in the university personnel management system, which significantly affects their status in the university.

After the Act came in effect, academic staff are to be hired as a university employee, not as a civil servant as was the case in the past. State-supervised universities obtain an increased freedom to hire employees to meet the institutional needs; in this sense, the Act is considered to benefit the university management. As an academic manager expressed his satisfaction with this freedom:

> 'With the new system attached to a more systematic performance evaluation, the university will be more efficiency-oriented.' (Participant: A-1)

Accompanying the Act is the 2003 Act on Salary and Remuneration for Status and Academic Rank of Teachers and Education Personnel. This act specifies salary, remuneration and benefit levels for education personnel commensurate with their status and academic rank. This Act was assumed to benefit academic employees in public institutions as all forms of benefit would be increased in monetary terms.

However, there were a number of negative responses from those who had already been appointed as a civil servant before the Act's enactment concerning career assurance regulations, of which monetary rewards were only a part, not all, of the matter. As one reflected:

'The salary might have been increased but that is not the whole point. The point is the money is not everything. If it is, we might have just chosen to work for private organisation offering a competitive salary. The thing is being a civil servant means having a life assurance and a pride.' (Participant: C-8)

A compromise solution was therefore undertaken by the university with only the new academic employment policy applying to those newly hired staff, whereas those existing civil servant ones retained their status. As a result, new academic staff, particularly those working for a university for less than 10 years, were more likely to be a university employee, not a civil servant. The change in this employment policy led to a distinction in the status between old and new staff. Unsurprisingly, this did not satisfy newly appointed ones:

'If it is so good to be hired as a university employee, why did none of the managers opt to be an employee? All of them remain being a civil servant.' (Participant: A-8)

Empirical data showed that the civil servant status was considered as more prestigious as they were permanent employees of the state, having more career assurance than those university employees being hired with a term-time contract. Staff in the latter group faced more tensions on performance evaluation, as this result affects the renewal of their employment contracts. As one pointed out:

'For university employees, one of the benefits for civil servants that is not provided for them is health insurance for their families. Having said that, civil servants get this health benefit for not only themselves but also their families. To compare, despite getting less health benefit, university employees get more salary. This could be up to 70% more than civil servants in the same rank depending on their performance evaluations and term-time employment contracts.' (Participant: A-1)

As a result, the different employment status brought about three aspects of academic distinction. Firstly, it led to noticeably different values of public commitment between civil servants and employees; university employees had relatively less interest in performing services. It must be borne in mind that academics are not hired because they were good at academic services; academic employment primarily concerns teaching and research performances, which are the mainstream activities of the university. Since services are seen as voluntary work with less effect on academic evaluation and promotion, these employees admitted that it was sometimes annoying and irritating when they were asked to help service activities. This finding is evidenced by the following remarks:

'It is tough to be an academic. It is even tougher to be an academic employee. Compared to academic civil servants, we have the same job descriptions, work under the same codes of practice but employees have more frequent evaluations. If those activities [services] are really important, why don't they [the university] just hire more staff to work for them? Why do they keep asking employees like me to do the work that would not give any good on the evaluation?' (Participant: B-8)

'New lecturers in my department opt not to get involved in services as much as those old academics do. One of the reasons is that they focus on their own work of teaching and research. I am not suggesting that this is good or not; I quite understand tensions they have about annual assessment.' (Participant: C-3, a civil servant)

'Of course, I know services work is a part of academic work. However, to me, the priority for now is to do research and to be promoted into an academic position.' (Participant: B-8, a university employee)

Secondly, the distinction lessened the importance of unified traditional beliefs and values. Regarded as having more evaluation and employment tensions, university employees found themselves as being more detached from the social commitment as they conceived themselves as equivalent to privately hired lower-ranked personnel:

'The new Act allows the university to privatise its employment policy. University employees are therefore privately hired by the university, not the state. Clearly. the university can do what ever they want to us.' (Participant: C-6)

Finally, with regard to ideas of academic freedom, academic staff are likely to choose their own areas of interest. With less intention to get involved in public interests, university employees are therefore less likely to look at problem areas specific to the place of their region, which are regarded as less significant than those of national or international (universal) academic communities.

'International funding and publications are normally be weighted in the academic evaluation higher than those of national or local levels; we therefore highly value international work. Having staid that, if the topic you choose is not quite interesting in international communities, it would be hard to get international funding.' (Participant: C-7)

Figure 5.3 summarises the above aspects of academic distinction caused by the different employment status:

FIGURE 5.3: Different Employment Statuses of Academic Members
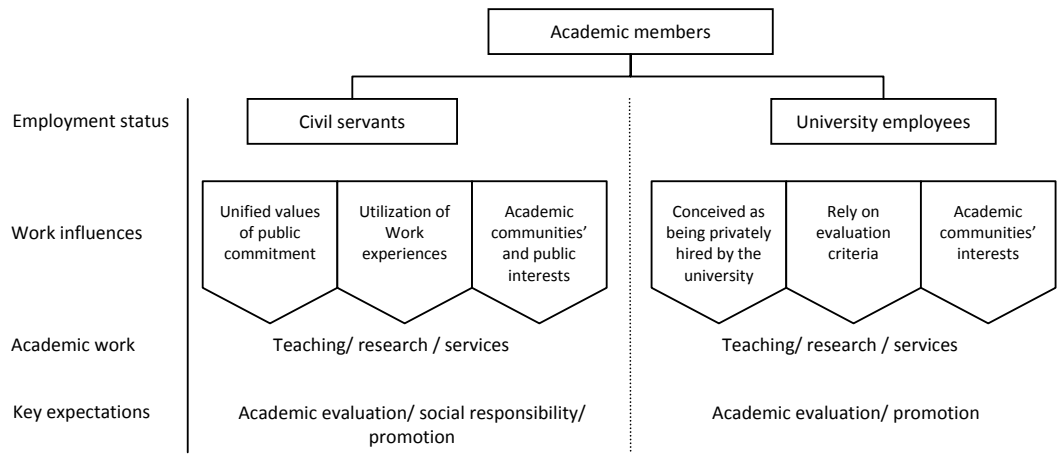
Source: developed by the author.

5.3.2 ACADEMIC EVALUATION

In order to make their services accountable, the university academic staff are required to perform the work with institutional recognition, notwithstanding that the academic may have initiated the work on a personal basis; otherwise, the work would not be counted. As one mentioned:

> 'If you make a personal contact and work without the university's recognition, the work would not be accounted. If you later report the work in the annual workload report, it would not be valid for the evaluation anyway.' (Participant: C-4)

Academic assessment was involved significantly with discipline-based peer review at the departmental level. As stated by a Head of Department from University B:

> 'The review [of the workload report] is mainly undertaken at departmental level before the evaluation is carried out at the faculty level. These processes concern differences across disciplines.' (Participant: B-3)

Agreeing with Hiltner and Loyland (1998, p.373), the empirical data showed that 'the mean values indicate that the department chair and peer(s) within the department were the most effective means of assessing service.' Considering this conclusion, middle-level academic managers, namely faculty Deans and Heads of department, play the key role in making a recommendation about the evaluation and promotion of their colleagues (Figure 5.4).

FIGURE 5.4: Academic Evaluation and Rewards
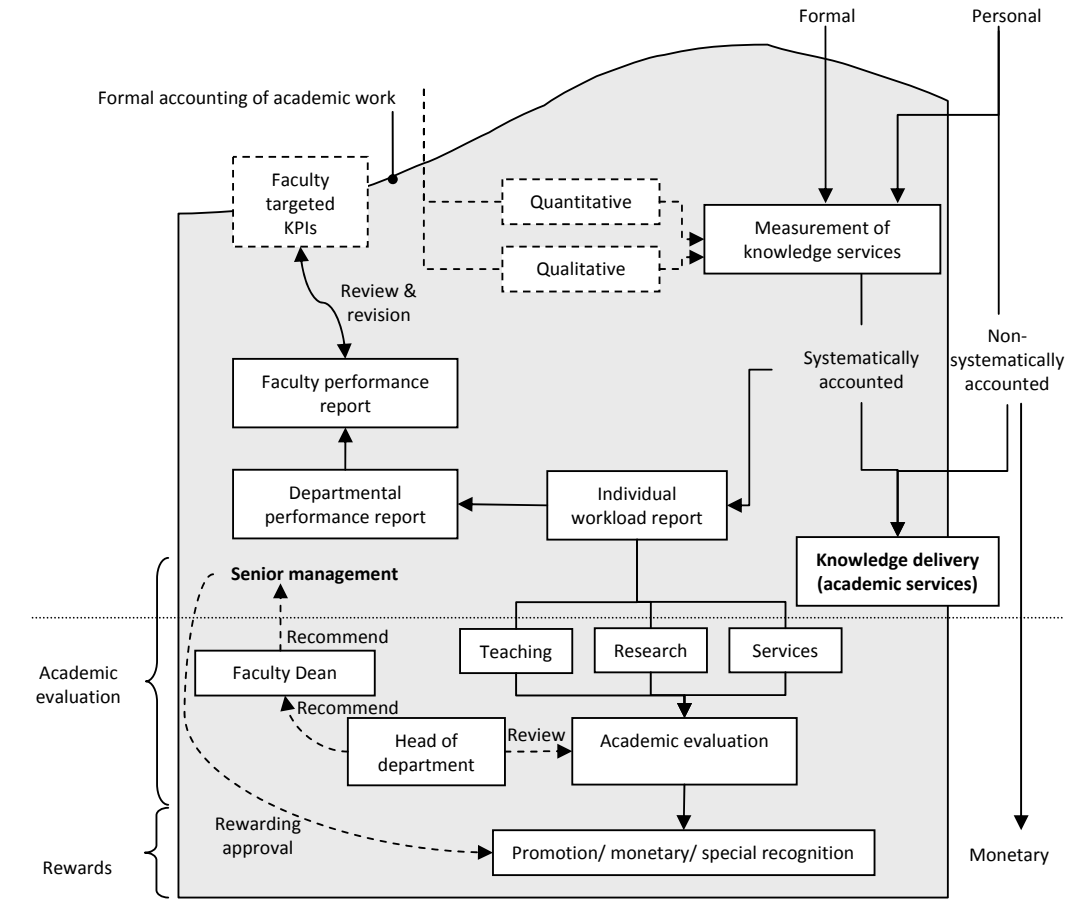
Source: developed by the author after Figure 5.2 presented earlier (p.150).

5.3.3 REWARDING MECHANISMS

Despite being undertaken with the university's full recognition, service work itself was not regarded as significant in terms of organisational rewarding systems. This is due to current methods for accounting for academic work separating academic activities into distinct sections, comprising teaching, research, academic services and promotion of artistic and cultural affairs. The academic services section, similar to the promotion of artistic and cultural affairs section, was only seen as a section required by academic staff to report their activities; these activities were not seen to have any influencing power on **academic promotion** though:

> 'Principally, it is required that all sections in the workload report are filled, and submitted annually for academic assessment; we are not supposed to leave any of them empty. In practice, however, it is not so serious if the services section be left blank with a reasonable excuse, which is often the case when heavy research and teaching workloads were mentioned. It is slightly different in terms of academic promotional criteria, when all four sections of work must be sufficiently reported to be qualified as a promotional candidate. However, the evaluation process beyond that only concerns research performance'. (Participant: B-3)

To explain further, teaching was seen as a committing function; most teaching-related activities, such as classroom lectures and course examinations, were tied to the work schedule. Other activities, such as contact with students and course meetings, were an obligation.

Compared with teaching and services, research, is the most influencing factor concerning the university objective of gaining a good rank as a research-oriented institution. As reflected by one academic staff:

> 'All forms of academic work will be counted as load units. How many hours you teach, how many publications, how many service projects you are involved with ... these will all be counted in terms of load units for performance evaluation. It is the matter of goals, not actually the matter of time, although teaching is more like the matter of time as classes are scheduled following the teaching goal set. Research is the most important in terms of goal as the university wants to become a research university. Service is not of quite that concern. There might be a service goal being set at 10% of load units only.' (Participant:B-2)

It is discerned that research was valued the highest, teaching was second and services and promotion to artistic and cultural affairs were seen as desirable but not compulsory. Accordingly, the service work would not be valued for promotion unless it also provided positive impacts on the higher-priority research and teaching work. In order to do so, academic staff preferred to get involved in research-related or teaching-related services. Notwithstanding this point, the current categories-oriented method often underscored the significance of academic services taking part in a joint production of work:

> 'I am not serious about numbers. If my research project dealt with local problem, I would just descriptively mention how the work could benefit locals, not many numbers involved.' (Participant: B-7)

Furthermore, some academic staff admitted to giving up involvement with academic services if the activity required them to sacrifice time and resources from

their mainstream teaching and research, or administrative commitment for those with a senior manager position:

> 'You have to prioritize the work. If services are not so important. Then leave it for later.' (Participant: C-2)

In some cases, a **monetary reward** in addition to the research benefit for status was yielded. Academic staff claimed the reward as a source of marginal income in exchange for their time invested:

> 'It is some kind of expectation overlaps; when you do services and earn some more money, you may not expect for any high score in the evaluation.' (Participant: A-3)

As a third form of institutional reward, the **honour certificate** representing the university's special recognition, was claimed by academic managers to be a stimulating instrument to make the university academics realise the significance of the services work:

> 'Special recognitions are an honour. These rewards are offered annually to academic staff presenting an outstanding performance of teaching, research and service.' (Participant: C-1)

However, this form of reward was not seen as effectively influencing academic involvement in services, even in the two universities with a strong regional agenda in their services mission. This is due to the lack of transparency and credibility of the reward concerning the diversity of academic disciplines. As one academic staff remarked:

> 'The honour certificate is the university's business, not mine. I do not know about the selection criteria; in fact, I do not see the best judgement criteria of whom to be rewarded. I am certain that those rewarded every year deserve the honour as they must have done some outstanding work. However, there are over 2,000 academic staff in this university working on difference subjects; how can we judge the best among these?' (Participant:B-8)

5.3.4   SIGNIFICANCE OF COLLEGIALITY

Individual professionals work mostly on their own in managing their efforts to diversify forms of academic activities in response to the diverse demands made on them. Notwithstanding this pattern of work, the departmental environment was found to underpin the academic tradition of giving high respect to the academic work of others, regardless of any seniority issue:

'We respect academic members regardless of the seniority. Although older and newer staff are different in terms of experiences, we rather look at the strength of staff in each group and make use of that strength to make a contribution to the department performance.' (Participant: C-3)

Based on the issue of academic respect, Dill (2000) and Downey (2000) point out that collegiality is a common pattern of connection, even among academic staff with different administrative ranks in the organisation. Applicable to the Thailand context, this was well understood by all academic managers interviewed. Rather than making an order, these managers were more likely to make use of collegiality in each different academic department in demanding service actions. As stated by a University B Vice President:

'Heads of department are not a boss; they are just a colleague to the department members. I think this is normal for public universities. Their administrative positions do not give them a power to make an order; they can only ask for co-operation from the members for their actions in respond to the university expectations. This is why no one wants to take the position.' (Participant: B-1)

Agreeing with the above view, the studied universities were found to have no clear policy to force directly staff to fulfil regional engagement; in terms of direct persuasion, asking for co-operation was the key strategy used. As stated by a Vice President of University A:

'Academic staff prefer not to be told to do anything by anyone. By performing academic work, they administer themselves. Even senior managers or a Dean of Faculty can hardly force them. Academic managers at all levels, university and departmental, need to be very persuasive and influential. The basic management strategy is to ask for cooperation, rather than to make an order, which academic staff will not follow anyway if they do not want to'. (Participant: A-1)

5.4 INSTITUTIONAL PROFILING: THE DISCUSSION

As the research findings in the previous sections showed, the organisational factors affecting the service work of individual staff were found at both institutional and departmental levels. Discussions on these findings are provided in this section, as outlined in Figure 5.5:

FIGURE 5.5: Institutional Profiling and Regional Service
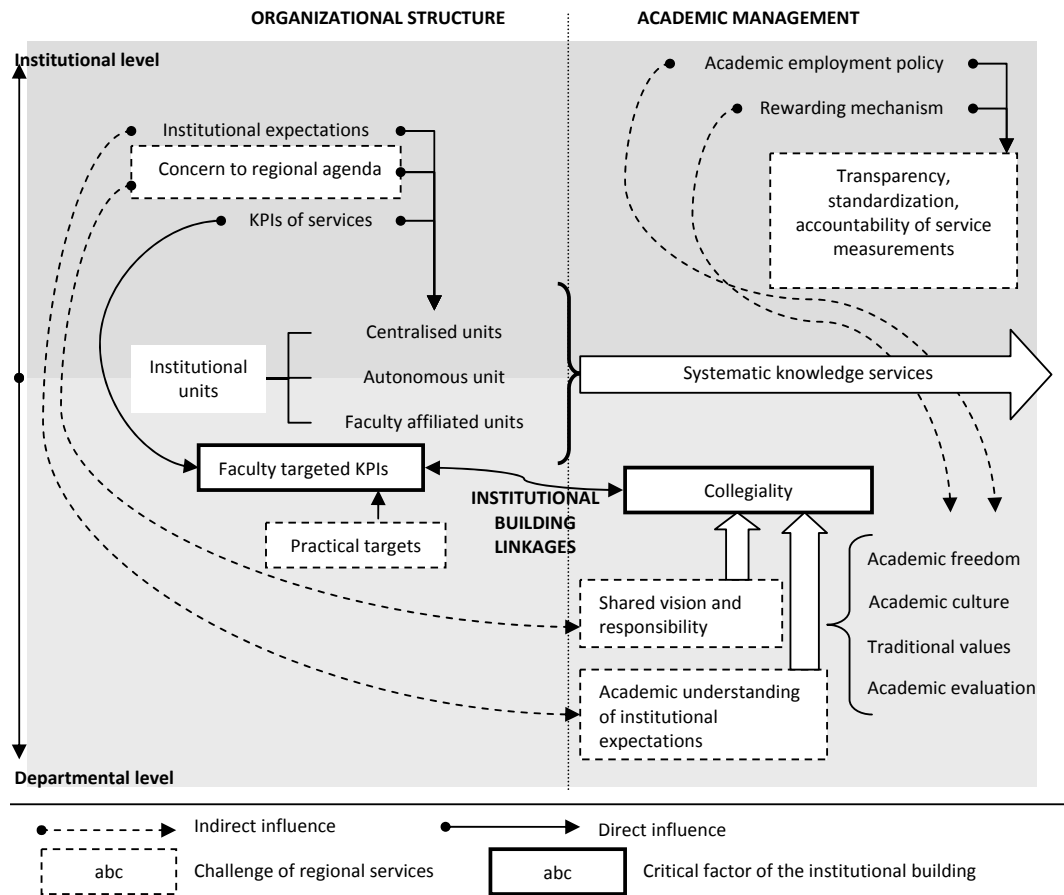
Source: developed by the author.

5.4.1 THE ORGANISATION AT INSTITUTIONAL LEVEL

The organisation at institutional level was found to shape service activities of individual staff throughout the university regardless of the specific characters for which academic department they work. Bearing in mind the investigatory rationales that underpin the researcher's choice to investigate traditional public universities[44], findings in this chapter could be linked with the rationales as illustrated in Figure 5.6:

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[44]As discussed in Section 2.2 of Chapter 2 (pp.26–30).

FIGURE 5.6: Linking Findings with the Investigatory Rationales
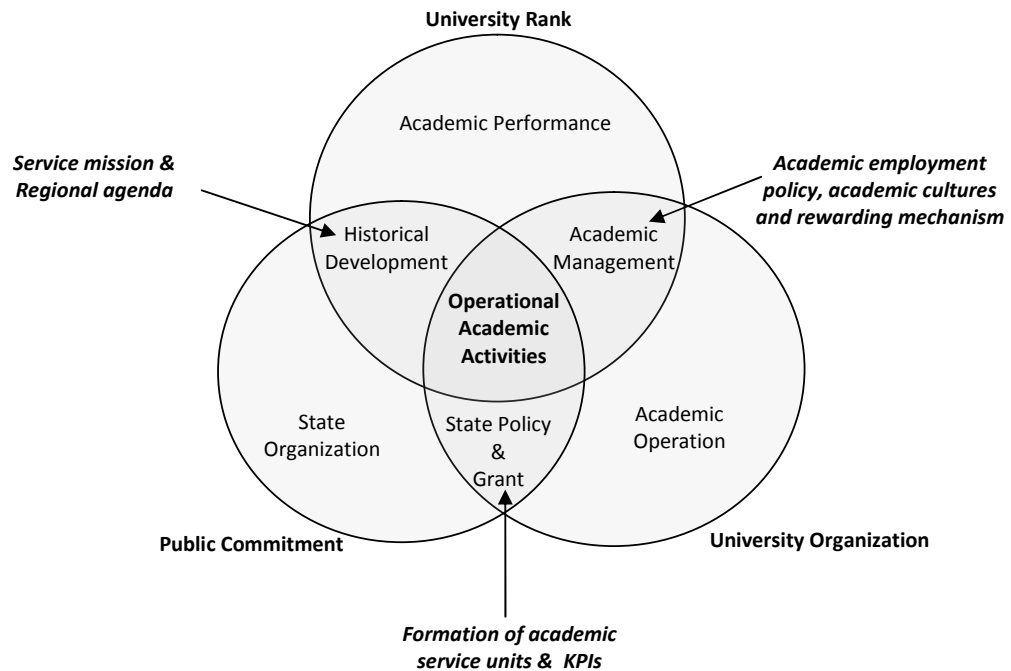
Source: after Figure 2.6 in Chapter 2 (p.30).

To explain further, firstly, **the university service mission** and **the university regional agenda** were found as consistent with **the university public commitment** and their contemporary intentions to be present in the research-oriented **university rank**. It is recognized that these universities attempted to weave services into mainstream university activities, particularly research.

Secondly, findings presented in Section 5.3 confirmed that their **academic management** was concerned not only with the **university rank** but also with the organisational transformation to an **autonomous university**. Accordingly, academic operations were shaped by not only traditional academic cultures but also by the contemporary academic management policy and institutional rewarding system, that made research performance the highest priority for promotion.

Finally, their formations of **service units** throughout layers of the organisational structure and the employment of **services KPIs**, with five mandatory components for the service performance to be evaluated, were evidently influenced by **state policy** and **funding** granted to the university.

The above findings formed the institutional contextual conditions surrounding **operational academic activities** of services.

However, despite the institutional organisation, academic service was only a part of the overall view of university mission; as the university's performance targets were set, the organisational context was developed to facilitate 'the participation of a critical mass' of academic staff to fulfil the targets (Lawton Smith, 2007, p.38). This objective was evidenced by the ratio between academic staff involved in service activities and the total academic staff was very low. As the case of University B showed, only 0.91 and 0.99 in 10 academic staff in 2004 and 2005 respectively were involved in service activities (Table 5.7). This figure is considered a very low ratio compared to teaching that almost all academic staff are involved.

TABLE 5.7: Service Performance at a Thai University

Indicator	2004	2005	Difference	Indication Unit
Total number of service recipients	552,882	643,678	+	Persons
Budget spent	32.11	35.14	+	Million of Baht
The percentage of satisfaction levels of those who receive services	84.05	85.0	+	%
Total income generation from services	35.76	28.70	-	Million of Baht
Full-time faculty who are involved in services[*] in proportion to the number of full-time academic staff	0.91:10	0.99:10	+	Persons:the total number of full-time academic staff

Note: [*]in providing academic services as consultants, thesis committees outside the institution, academic or professional committees at the national or international level, and academic and professional service activities/projects responding to the needs for development and strengthening the society, community, nation and the international community.
Source: University B's Biannual Report 2004–2005.

Reinforcing this finding found at the institutional level, further investigation at the operational level, including significant statistics and perceptions and practices of diverse individual academic members, will be presented in the next chapter[45].

5.4.2 THE ORGANISATION AT DEPARTMENTAL LEVEL

At academic department level, there are a number of expectations embedded in KPIs of service. Middle-level managers of all faculties and departments would be responsible for communicating the policy to their academic peers. Then, the operational responsibility for making real the targeted performance would be diversified among all the peers (Figure 5.7).

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[45]To be specific, see Section 6.2 (pp.182–194).

FIGURE 5.7: Communicating the Targeted KPIs of Academic Services
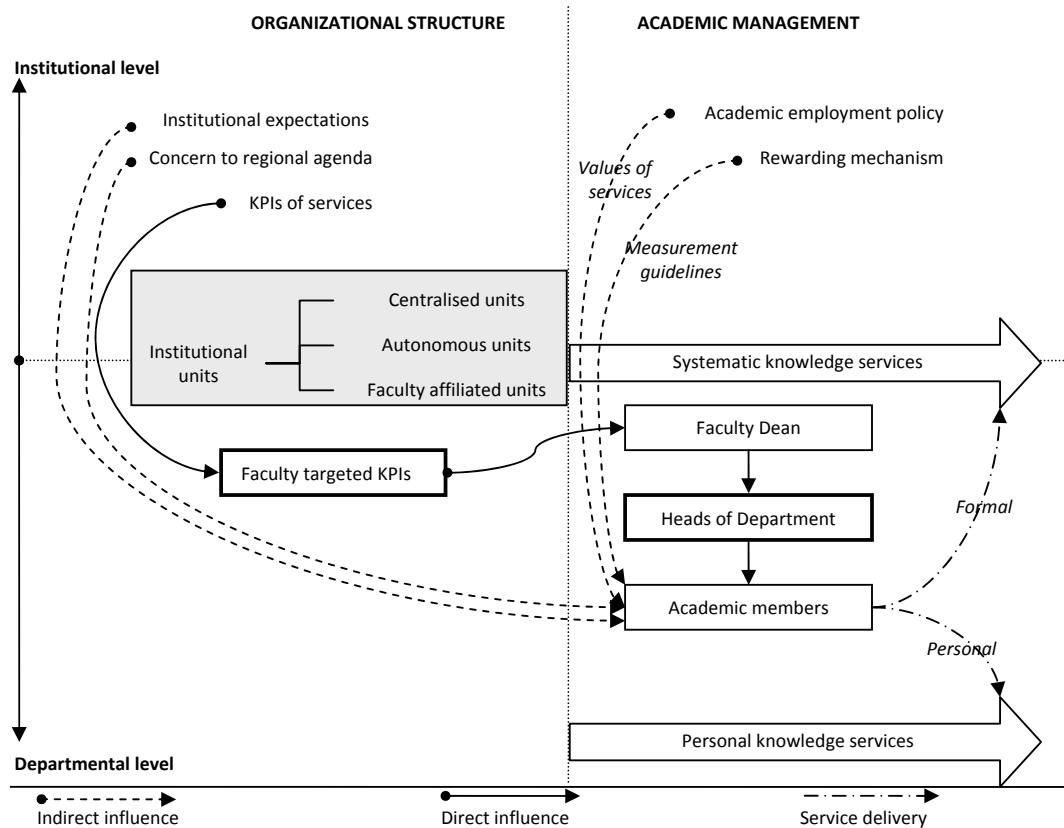
Note: KPIs = Key Performance Indicators, formal = formal delivery of academic services, personal = personal delivery of academic services.

Source: adapted from Figure 5.5 presented earlier (p.163).

Implicit in this approach was that academic services might not involve all academic members. As confirmed by the President of University C:

> 'Individual staff are different; they make their own choices of how the work is to be performed. It might not always be the case that service is included in their individual work objectives. The faculty dean are therefore expected to make sure that the overall faculty performance meets all the university requirements regarding teaching, research, service and promotion of artistic and cultural affairs.' (Participant: C-1)

This view is consistent with the discussion made previously showing that the universities studied do not expect all of their staff to get involved in service activities.

In terms of academic management, Deans of Faculty and Heads of Department play different roles as middle-level managers; in any faculty, the Dean is mainly responsible for policy-making and administrative decisions whereas Heads of Departments within the faculty deal with the academic work at operational level following the faculty policy. Mindful that the faculty policy forms a part of the

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university-wide policy that shapes the faculty policy as well as expectations of individual academic performance, the similarity in the roles of the Dean and Heads of Department is that they build linkages between the academic management and academic operations.

5.4.3 CHALLENGES OF SYSTEMATIC REGIONAL SERVICES

Bearing in mind the organisational structure and academic management discussed throughout this chapter, five challenges were identified regarding systematic performance of regional services, or the work that was formally performed with the university's recognition (see also Figure 5.8):

1. The building of institutional concern for regional agenda.
2. The transparency, standardisation and accountability of measurements.
3. The development of practical faculty targeted KPIs.
4. The creation of shared vision and responsibility for regional services.
5. The sufficiency of academic understanding of the institutional expectations.

FIGURE 5.8: Challenges of Institutional Performance of Regional Services
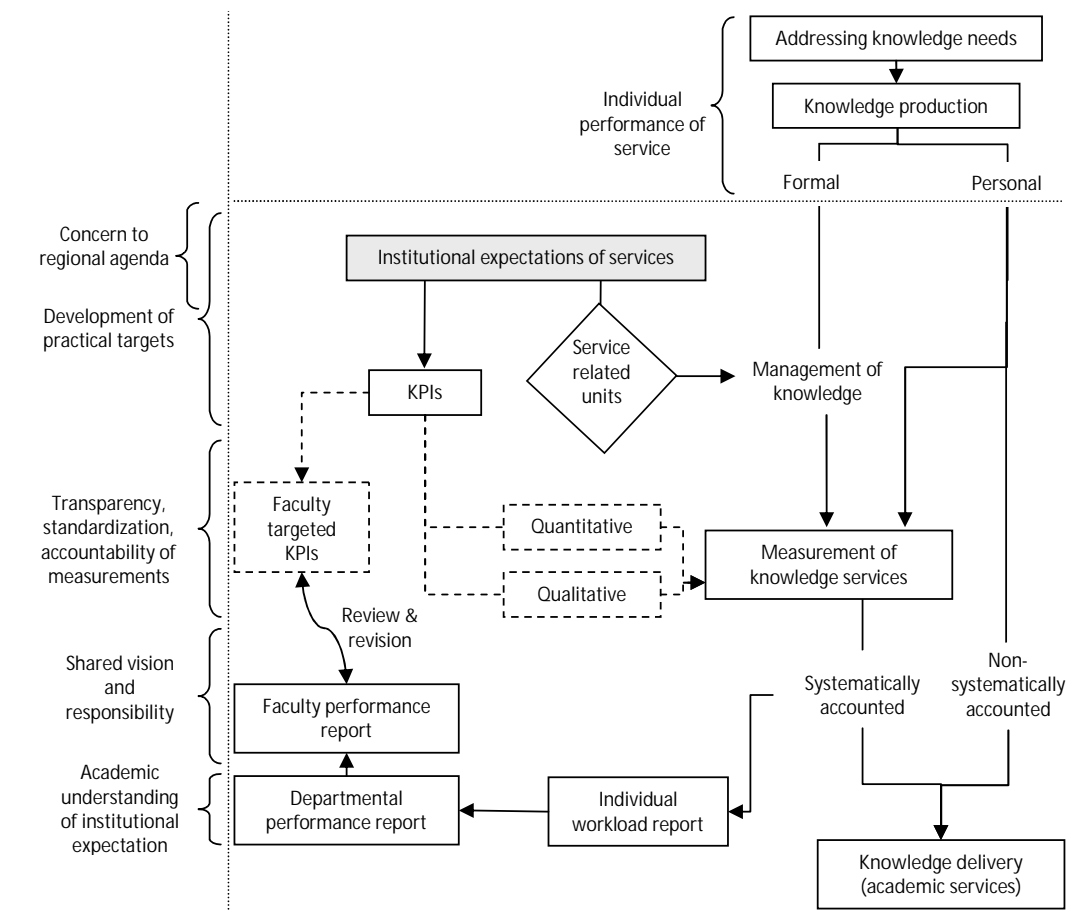
Source: developed by the author after Figure 5.2 presented earlier (p.150).

As illustrated in Figure 5.8 above, the first two challenges were faced at institutional level whereas the latter three were mainly found at departmental level, where individual staff work in the similar areas of expertise to their peers.

Implicit in the challenges identified, recalling the university autonomy being granted to the three universities studied[46], the findings presented in this chapter support Puukka and Marmolejo (2008, p.21) who argue that the university's regional engagement would not necessarily be enhanced unless the autonomy is 'conceived as a part of an overall strategic regional development agenda ... and supported at the same time by appropriate incentives and accountability'. As the evidence from the three universities showed, notwithstanding that similar organisational structures and academic management were found in the three universities to promote systematic performance of academic service, the institutional dialogues of regional service were addressed differently across these universities. Accordingly, these different dialogues were reflected by the difference in context beliefs of academic staff across these universities.

5.5 CONCLUSION

By making comparison across the three universities, differences in the regional agenda as well as academic involvement in services with regard to the agenda were identified. Despite differences in the forms of empirical data, it was found that these different universities each attempted to promote systematic services within their institution. Regarded as the institutional organisation for services, several service units are developed and located throughout layers of the organisational structure, including centralised units, autonomous units and faculty affiliated units. In terms of academic management, middle-level managers at departmental level was found as essential to ensure that the university service mission was pursued.

As a result, the researcher was able to identify the underlying abstract concepts that could theoretically explain the findings and their differences found empirically, as presented in Table 5.8:

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[46]See also Section 2.2.3 of Chapter 2 (pp.28–30).

TABLE 5.8: Theoretical Code of Institutional Profiling Proposition

What	How
The institutional organisation for systematic services	The **institutional expectation** is reflected by the **organisational structure** and the **academic management** of the university. The **organisational structure** and the **academic management** serve **systematic performance and delivery** of regional service.

Note: A detailed coding structure comprising all developed codes, categories, coding families and theoretical codes is provided in Appendix E.

Source: developed by the author.

The research findings presented in this chapter helped to outline the contextual conditions surrounding operational academic activities of services. Given these contextual conditions, the work of individual staff will be discussed in the next chapter, the final part of the findings series, bearing in mind that the three universities are comprehensive universities comprising academics from diverse disciplines and backgrounds.

Chapter 6

INDIVIDUAL PROFILING

6.0   INTRODUCTION

Based on the contextual conditions presented in the previous two chapters, this chapter looks into the detailed conditions of individual staff; it discusses the academic services at operational level taking into consideration different individual professional and academic backgrounds. The presentation in this chapter is in accordance with four questions:

1. How do academic staff make sense of their services delivered to the region?

2. What services are delivered?

3. How do they deliver these services?

4. How can systematic delivery be achieved given the range of individual services performed?

5. What factors influence the delivery of services by individual academic staff?

The chapter is divided into four sections. The first section reveals both accounted and under-accounted services carried out within the university; three forms of knowledge services will be dealt with, namely commercialising knowledge, knowledge spillover and knowledge as a public good. The second section presents the impact of disciplinary differences on service practices. The third section moves on to the influences of different academic professional qualifications. Finally, the fourth section provides linkages between individual and institutional perspectives in order to examine the delivery of systematic services.

6.1 ACCOUNTED AND UNDER-ACCOUNTED SERVICES

Despite the widely held perception of service being less significant in academic evaluation and promotion, services to the region were actually often undertaken by most staff; some activities were accounted with the university's full recognition, whereas some were not. In this sense, some academics delivered their service on an institutional basis using formal channels (Gunasekara, 2006c) or systematic methods of service delivery (Thanki, 1999), whereas some performed the service on a personal basis.

In the literature, there are different views regarding whether to see knowledge service as a public good; some scholars (*e.g.* Amey, 2002; Boyer, 1996) suggest that knowledge, particularly that provided by public educational institutions, should be regarded as a public good, and being accessible to the public, whereas others suggest that knowledge should be regarded as a kind of 'intellectual property' belonging to its 'owner' (*e.g.* Nowotny *et al.*, 2003; Puukka and Marmolejo, 2008).

Based on diverse experiences shared by the interviewed academics, the outcome of their performance facilitating knowledge transfer to the region can be divided into three forms, regardless of whether the work is being accounted as service performance: (1) knowledge commercialisation, (2) knowledge spillover and (3) knowledge as a public good (Table 6.1).

FIGURE 6.1: Knowledge Services
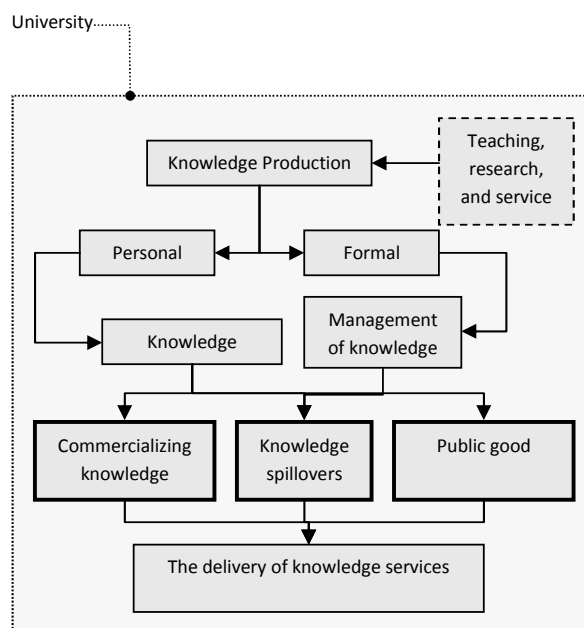
Source: developed by the author after Figure 2.16 in Chapter 2 (p.47).

According to research data, commercialising knowledge was found as a kind of 'intellectual property' with a specific owner whereas public good knowledge had no clear owner and is 'accessible to public'. The basic characteristics of the three forms of knowledge were found as follows:

- *Commercialising knowledge* was claimed when service recipients paid for the knowledge served in response to their private demands for knowledge.

- *Knowledge spillovers* was claimed when the individual who served knowledge gained the knowledge possession.

- *Knowledge served as a public good* was not served in response to any particular private demands.

This section discusses in detail these forms of service together with the factors and incentives leading individual staff to become involved with the activity.

6.1.1 COMMERCIALISING KNOWLEDGE

According to existing literature, universities may commercialise their knowledge services using several approaches, including: commercialising their research bases by linking the research to the external environment (see, for instance, Liefner and Schiller, 2008); getting involved in commercialising activities of 'start-up' and 'spin-off' firms (see also Audretsch and Lehmann, 2005; Bramwell and Wolfe, 2008); providing business firms with consultancy (see, for example, Bramwell and Wolfe, 2008; Intarakumnerd, 2006); acting as commercialising universities themselves seeking to be 'competitive, cost-effective and to respond to market pressures' (Harloe and Perry, 2004, p.217); and having joint research projects with outside industries (see also Arbo and Benneworth, 2007; Caraça *et al.*, 2009).

By having academic staff doing commercialising activities, the university would normally obtain monetary benefits, known as 'the third strand of funding' (Charles, 2003) or 'third stream income' (Kitagawa, 2004), in addition to intangible incentives highly valued in the academic community, such as research productivity and publications.

While several studies (*e.g.* Bramwell and Wolfe, 2008; Cooke *et al.*, 2002) emphasize knowledge commercialisation in the sense of 'the commercialisation of new knowledge' implying the commercialisation of 'research', other studies (*e.g.* Benneworth and Sanderson, 2009; Charles, 2003; Chatterton and Goddard, 2000)

consider the work in a wider extent, implying the commercialisation of 'knowledge transfer' with either new knowledge or the range of professional expertise.

6.1.1.1   *Commercialising Service Activities*

According to the interviews, knowledge commercialisation was carried out in various ways, based on both the production of new knowledge and the utilisation of individual academics' own expertise. In detail, some were more research-related, some were training and education-related, and some were distinct from the mainstream teaching and research, such as consulting services. Some examples are provided as follows:

> Using individual's own expertise:
> 'I serve in the Scientific Equipments Testing Centre. There is nothing new so it would not be any publication; it is just something requiring a professional's service.' (Participant: B-8)

> Performing research-related activity:
> 'Last year, an export company asked me to do research about their internal management problem.' (Participant: B-4)

> Giving public lecture:
> 'Giving a professional lecture is an example.' (Participant: B-3)

> Conducting professional training course:
> 'We annually organised a drawing camp for local high school students; some of them later became our student.' (Participant: C-5)

> Providing consulting service:
> 'I am an advisory board member of a national energy company.' (Participant: A-3)

Among these activities, very little was related to conventional classroom teaching and learning. This is due to the difference in knowledge demands; different preparation and teaching materials for 'professional learning service' were required (Charles, 2003; Chatterton and Goddard, 2000). As one member of staff remarked:

> 'It needs extra time to prepare materials for professional training. Those demanding service would have their own needs, which make material preparation differ from one to another, and from typical classroom materials too.' (Participant: B-5)

In this sense, commercialising activities met various objectives. Various service recipients reported included industrial firms, government authorities and other private entities. As a normal practice, these recipients provided funding as they received the service. As one mentioned:

> 'They have their own questions and needs requiring us to respond to.'
> (Participant: C-5)

6.1.1.2 Incentive for Individual Staff to Get Involved

Concerning the characteristics of inquiry, commercialised knowledge would provide immediate effects for the knowledge user. In other words, unlike typical academic knowledge, it was not to be kept in the university waiting for potential needs to codify the knowledge before yielding practical outcomes. As an Associate Professor from University A explained:

> 'It depends on whom you work with, on the funding and on what their needs are. In addition to my university work, I have experiences of consulting private firms, organising professional trainings and conducting a feasibility study for government projects. As they need my service, they provide funding for it.' (Participant: A-3)

The primary incentive for commercialising service was **a monetary reward**, although it was also the case that the activity undertaken might be used as empirical data for academic publications. As one member of staff mentioned:

> 'It is the matter of sources of fund. We call projects as either 'a project' or 'a publication intended'. From my own experiences, the former work would give you more money while the latter would require you to publish the results when it is done. Having said that, I mean not all the projects are to be published.' (Participant: B-7)

Despite interviewed academics could deliver academic service through research, they saw the findings as giving less intellectual value compared with the production of advanced knowledge valued by their disciplinary communities, both national and international; they viewed the nature of inquiries made by the knowledge users as requiring the application of codified advanced knowledge rather than the development of new understandings. As one member of staff reflected:

'It is the matter of scoring system. You may serve problems occurring outside the interests of the academic community of your field but this sort of work is normally less complicated than pure and intense advanced investigation. As a result, those empirical problems are sometimes scored less than your own chosen problems.' (Participant: A-8)

6.1.1.3   The Accounting of Commercialising Service

As discussed in the previous chapter, services could be delivered on either an institutional or personal basis. For academic staff initiating the service on a personal basis, there were two possible consequent actions; one was that the staff carried out the work with the university's full recognition, where the work would be systematically accounted for academic evaluation, the other was they undertook the service for their own interest and income:

'The staff can choose whether to do the work through the faculty research centre, in the name of the faculty or any other service units of the university. If they do so, at least 10% of the project value will be given to the affiliation of their choice. Otherwise, they can just do it personally.' (Participant: A-8)

By delivering the service with the university's recognition, the income would be diversified and given to related units in accordance with the university policy, which might be the university itself, the research centre, the affiliated department or the affiliated faculty in whose name the service was undertaken. As one member of staff, who was also a Director at an autonomous research centre at University C, explained that:

'For research projects funded externally, 10% of the project value would be given to the university [whereas the rest of it would be managed by the centre, the portion from which academic researchers would be paid]: 3% to the university's research and development institute, 3.5% to the faculty and 3.5% to the department. This is reasonable as there are university resources we [academic staff] use, such as the university building, technical equipment, stationery, electricity. Also, the money allocated will be used to support further academic activities.' (Participant: C-7)

In contrast, for those services carried out without the university's recognition, the work would not be accounted in the workload report; hence it would have no impact on academic assessment and evaluation. Often, activities carried out in this way were distinct from mainstream institutional or departmental operational academic missions; they were mostly for individual's own interest and income, in

which case, academic staff had to make a personal trade-off between institutional rewards (*i.e.* academic promotion and special recognition) and a more attractive monetary reward offered by the service recipient. As a Lecturer from University A stated:

> 'By allocating your time to work with outside entities, sometimes you have to choose between "money" and "academic rewards". By using the term "academic rewards", I mean the reward of being valued regarding academic career, such as a promotion to a higher rank or a recognition you would get from your academic communities.' (Participant: C-6)

6.1.2 KNOWLEDGE SPILLOVER

Audretsch and Lehmann (2005, p.1194) find that there are at least two principal mechanisms of knowledge spillover from universities to firms; one is through scientific research publications and the other is through the knowledge embodied in students graduating from the university. Having said that, they (Audretsch and Lehmann, 2005) find that firms within the university geographic proximity with a high capacity of R&D production tend to have a greater advantage of knowledge spillover as the transmission of knowledge can be done through several channels, namely publications and face-to-face interactions, compared with those firms located at some distance.

Consistent with Audretsch and Lehmann (2005), Schiller (2006b), whose study is about regional UILs in Thailand, finds that firms within the geographic proximity of leading Thai universities located in peripheral geographic regions can take advantage of publications produced by the university academics; despite these publications being codified knowledge distributed widely, the locals gain an advantage of application from such knowledge produced within the regional context.

6.1.2.1 *Research-Related Knowledge Spillover*

Unlike knowledge commercialisation discussed previously, most of the outcomes of research-related knowledge spillover did not yield immediate practical outcomes. Agreeing with Feldman and Kelley (2006) and Schiller (2006b), interviews with Thai academic members revealed that the academic knowledge lacking immediate practical outcomes was caused by the period of research grant application, made on the basis of detailed proposal, and the organised procedure of codified knowledge production. As one member of staff explained:

> 'It is a long-time process. When you found potential funding bodies of
> your proposed project, you would then have to make an application as
> you send them the proposal and wait for the result of consideration.'
> (Participant: C-7)

For academic staff, the primary sources of funding were reported as public entities such as the Thailand Development Research Institute (TDRI), the National Science and Technology Development Agency (NSTDA), the National Research Council of Thailand (NRCT), Thailand Research Fund (TRF) and other government bodies with areas of responsibility relevant to specific disciplines.

By receiving support to pursue academic research, although the staff would initially be aware of the social problem, they would eventually be detached from making the knowledge application. In other words, the outcomes of their research did not usually make an immediate impact on the regional economy; implications of the research findings required a further step. As an Assistant Professor of Industrial Engineering, who specialised in waste water management, explained:

> 'I am often approached by locals; some are firms and some are
> government authorities. Mostly, it is about the problem of waste water
> in local factories, such as those producing paper products. I might help
> them find out what was going on and suggest possible solutions. If I
> saw the possibility that I could do it as an academic research project, I
> might apply for a grant. But most of the grant would cover only the
> cost of research, whereby a publication must be presented. To
> implement the solutions is usually the responsibility of the firm itself.
> Sometimes it would take years to deal with the problem and I was not
> a part of the action.' (Participant: C-7)

The above example reflects on an imbalance between research (R) and development (D) in Thai universities. In this sense, most of the activities were more like an incomplete interactive knowledge transfer, notwithstanding that those research interests attached to service purposes looked at problems raised through local society. Consistent with previous studies conducted in the Thailand context (*e.g.* Brimble, 2006; Liefner and Schiller, 2008), participating staff were primarily involved with research (R); very few reported being involved directly with development (D). Additionally, this part of the finding is similar to Abramovsky and Simpson's study (2008), which is conducted in the developed UK system; their statistical calculations confirm how universities interact with firms within their spatial geographies in the forms of 'knowledge sourcing' more than those of 'co-operating'.

Additionally, the empirical findings are reinforced by Chaminade *et al.* (2008), whose survey reveals that Thai universities are among three types of institutions,

alongside public research institutes and private non-profit institutions, industries indicate as their main source of information for innovation. Notwithstanding this finding, they (Chaminade *et al.*, 2008) also find that academic capacity and network problems are simultaneously regarded as the main systemic failures in the Thai IS. Similarly, a study conducted by Schiller (2006a) presents the distinctive trends of ratios of research types conducted within Thai public universities, other government bodies, and business (Table 6.1).

TABLE 6.1: Thai R&D Performance by Kind of Activity

	Basic research			Applied research			Experimental development		
	1995	1997	2001	1995	1997	2001	1995	1997	2001
Total	20%	14%	16%	63%	72%	42%	17%	14%	42%
Government	23%	14%	20%	63%	75%	61%	14%	11%	19%
Universities	26%	16%	34%	66%	75%	52%	8%	9%	14%
Business	11%	8%	1%	61%	48%	15%	28%	44%	84%

Source: Schiller's (2006a, p.73) own calculation based on statistical data in NRCT (2004) and MOSTE (1999).

As seen in Table 6.1 above, the percentage of applied research in public universities was always higher than that of basic research. The numbers imply that most research undertaken in these universities is likely to be application-oriented. Notwithstanding, the percentage of experimental research was always the least in the period studied, implying that only the lowest proportion of research undertaken was confirmed in its application by experiment. By contrast, most research undertaken within business organisations is experimental research. In other words, it can be claimed that academic 'research' (R) is detached from 'development' (D), which is the process of making innovations yield their practical outcomes.

6.1.2.2 *Teaching-Related Knowledge Spillover*

Although reflectively few in number, there were academic experiences reported whose outcomes could be regarded as teaching-related knowledge spillovers. In some cases, there was additional funding granted by government bodies to support academic staff adjusting their teaching and research activities to meet public needs. Some of the cases were seen as a 'triple helix' model of knowledge transfer, involving with three bodies of service participants — the university-the government-a business firm. An example given by a University C academic from the Department of Industrial Chemistry, whose area of expertise was the production of ceramics:

'I have a research project, government funded, aiming at improving the quality of ceramic products. I work with a couple of Northern ceramic factories which would, obviously, be direct beneficiaries once the project is complete. Further than that, the project also aims at indirect benefits for local employment and export. A group of undergraduate students work for me in this project. They have access to the factory sites and can use technical equipment, both at the university and the sites. They also get paid for participating in the project. It is not a large amount of money but it is a little incentive for them.' (Participant: C-8)

Considering the above examples, it is discerned that eventual outcomes of the research project can deliver a knowledge spillover in the form of not only publication but also a knowledge embodied in the participating students. Academic staff contributing to this form of outcome adapted their teaching and learning activities based on material and non-material assets existing within the geographic proximity defined as their region[47]. As an academic from University B shared his experience:

'Independent study is a very effective way in which final year students can use what they have learnt in classrooms for solving real problems. When it is time to choose the topic, I like guiding the student to those of the South.' (Participant: B-3)

The knowledge transferred through the teaching and learning activity was claimed as a possible knowledge spillover because participating students would not immediately use the knowledge they gained for the regional production unless they later worked for regional industries (Audretsch and Lehmann, 2005). As an Associate Professor from University B mentioned:

'Most of our students are Southern residents. According to the history, these students prefer to remain within the region after their graduation. Being aware of this fact, I therefore try, where possible, to include the knowledge about Southern industries into teaching modules, real case studies included.' (Participant: B-3)

6.1.2.3 *Incentive for Individual Staff to Get Involved*

The primary incentive of the project expected to provide a knowledge spillover was in accordance with **the academic promotional system**. That is, by conducting research in the name of the university or instructing a teaching course of the faculty, academic staff would account for the work in their workload report presented to the university for assessment and promotional purposes. In some cases, a monetary reward was also claimed as a secondary incentive:

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[47]See Chapter 4 for university regionalisation of the three studied universities.

> 'Primarily, I want the work to be published as this will go to my
> workload report, hence the assessment and promotion. Although there
> is some additional money, it is not a big deal as it is a very small
> amount concerning the cost of time spent for the work. Anyway, to get
> the work published and to get the consequent benefits of it as I just
> mentioned is enough for me.' (Participant: A-6)

6.1.3 KNOWLEDGE AS A PUBLIC GOOD

Regarding the way in which knowledge is being seen as a public good, according
to the OECD's view (2007, p.179), 'the public good implies access to the reservoir
of knowledge generated in higher education, how that knowledge is used to the
benefit of the wider society, not just the academy, and last but not least the role of
the society in the co-production of this knowledge'. Implicit in this approach, the
term 'public good' is significantly related to the 'access' of the public to knowledge
provided by HEIs. Based on these background discussions, it is assumed that
knowledge could be seen as a public good if it either is accessible to the public or
belongs to the public.

6.1.3.1 *Public Access to Academic Services*

According to the academic staff interviewed, diverse activities undertaken were
accessible to the public at no cost. Most of the services were not the production of
new knowledge; some academics helped to transform the codified knowledge in
areas of their academic expertise into a more effortlessly understandable form. By
doing so, this type of service is seen by Bramwell and Wolfe (2008), as helping the
knowledge users to gain practical outcomes in their professions.

Other activities were also undertaken, including public speaking via the
university's radio broadcasting, public roadshows about innovative production of
agricultural products, art exhibitions, and consulting services often with no
income to a university's academic service unit. Very often, these activities were
undertaken to promote the transfer of 'tacit knowledge', or the knowledge being
learnt through practice (Harloe and Perry, 2004; Lundvall, 1996). As a Vice
President from University B remarked:

> 'Because of the career characteristics, written works and publications
> are essential. However, we can not detach ourselves from the society
> regarding that not everyone learning by reading. This is why
> universities are expected to be more proactive in academic services;
> academic staff have to connect with the society using not only the
> writing but also some practices.' (Participant: B-1)

6.1.3.2   Resourcing Public Services

Although knowledge as a public good did not cost the public in a direct sense, the provision of it was not free of charge; the charge was made to public sources of fund, explicitly and implicitly.

To explain further, explicit sources referred to funding and inputs given to specific projects. The resources might be granted by either private agencies requiring no private return on investment in the project or government bodies investing for public purposes. For instance, an Assistant Professor of Thai Fine Arts shared her experience:

> 'Every year in November, there is a Thai traditional festival called Loy
> Kra Tong Festival. It is a big festival and a lot of tourists, both Thai and
> foreign, come to Chiang Mai for it. The City of Chiang Mai would ask
> the university to participate in a parade showing cultural arts around
> the city and showing at the festival site at night. The university would
> then ask my department to perform using a budget granted by the city
> council.' (Participant: C-5)

Implicit sources, on the other hand, were academic salaries and the inherent infrastructure costs incurred by universities, as these payments did not relate to specific service projects. In terms of individual staff investing their time, academic salaries were seen as a public investment (Dill, 2005). In this sense, academic service was to be performed in return for the investment paid by the public (De la Fuente, 2002; ONEC, 2002). This concept was acknowledged, as one member of staff reflected:

> 'It depends, sometimes we get additional income from doing a project
> [research or service], whereas other times we do not. I do not mind,
> really. We receive the state salary so it is our job to do the work
> anyway. My view about a non-additional paid project is the same to
> how I view a minimum teaching workload required by the university;
> it is the job responsibility.' (Participant: A-4)

6.1.3.3   Incentive for Individual Staff to Get Involved

The primary motivation of academic staff delivering service as a public good was therefore neither monetary nor promotional reward; such work was mainly driven by **personal factors** such as the personal value given to public commitment and peer pressure by the individual. As one member of staff said:

> 'You would not be in any troubles if you do not do any free services at all. However, as the Head of department is also the colleague. When he asks for everyone's actions regarding the pressure he got from those university managers for whatever reasons, it is not easy to say no.' (Participant: B-7)

Consistent with the above example, bearing in mind the 'no clear punishment policy' for individuals initially opting not to be involved in the service, middle-level managers, who were concerned by the departmental targeted KPIs, were not likely to give their colleagues an order; only collegial conversations asking for their involvement would be adopted:

> 'Academic staff are busy people. They have a lot of things to do; they have to teach as the work is scheduled and they also have to do research as it is the requirement from the university. They are already under pressures so you cannot just put some more on them by making an order because they will not happily respond anyway. For such services, asking for their helps would rather work.' (Participant: B-3, a Head of department)

6.2 SUBJECT COMPARISONS

Recalling the selection of research sites selection discussed in Chapter 3[48], the three selected universities provided a comprehensive range of degree programmes comprising three groups of disciplines: (1) social sciences and humanities, (2) S&T, and (3) health sciences (Table 6.2).

TABLE 6.2: Disciplinary Lines in Three Thai Traditional Universities
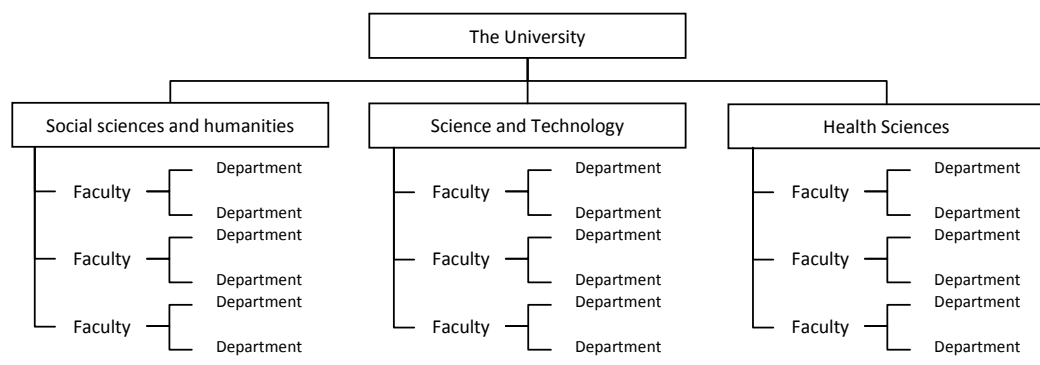
Source: developed by the author.

As illustrated in Table 6.2 above, diverse disciplines are formed into faculties whereby similar areas, divided into academic departments, are under the same

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[48]In Section 3.1.3 (pp.66–68).

faculty. These departments were 'traditional disciplinary bounded departments' (Chatterton and Goddard, 2000).

For the academics interviewed, their 'departmental cultures' were closely tied to 'disciplinary cultures' (Amey, 2002). These diverse professional backgrounds generated academic freedom and self confidence in the sense that all academic staff were equally respected for the choices they made for their professional goals and in their time management for diverse activities, including the delivery of academic service.

With respect to academic freedom, Section 34 of the Second NEA states the responsibility of the Commission for Higher Education (CHE) overseeing the operation of public universities as follow:

> 'The Commission of Higher Education shall be responsible for proposing policies, development plans, and standards for higher education in line with the needs specified in the National Economic and Social Development Plan and the National Scheme of Education …taking into consideration academic freedom and excellence of degree-level institutions in accord with the laws on the establishment of such institutions and other relevant laws' (ONEC, 2002, p.16).

At the three universities, with regard to the granted academic freedom, academic staff were provided with an opportunity to make their own choice of activities in accordance with their expertise relevant to the needs of the region. However, the diversity of disciplines also led to different factors affecting their performance. This section discusses these factors.

6.2.1 RESOURCES FOR RESEARCH-RELATED ACTIVITIES

According to interviews with Presidents and Vice Presidents at the three universities, more than 70% of the university budget was funded by government and allocated to the university through the CHE. In addition, government funding is the major source of research funding for these universities. Table 6.3 shows the organisational structure of government research funding in Thailand:

TABLE 6.3: National Structure of Government Research Funding
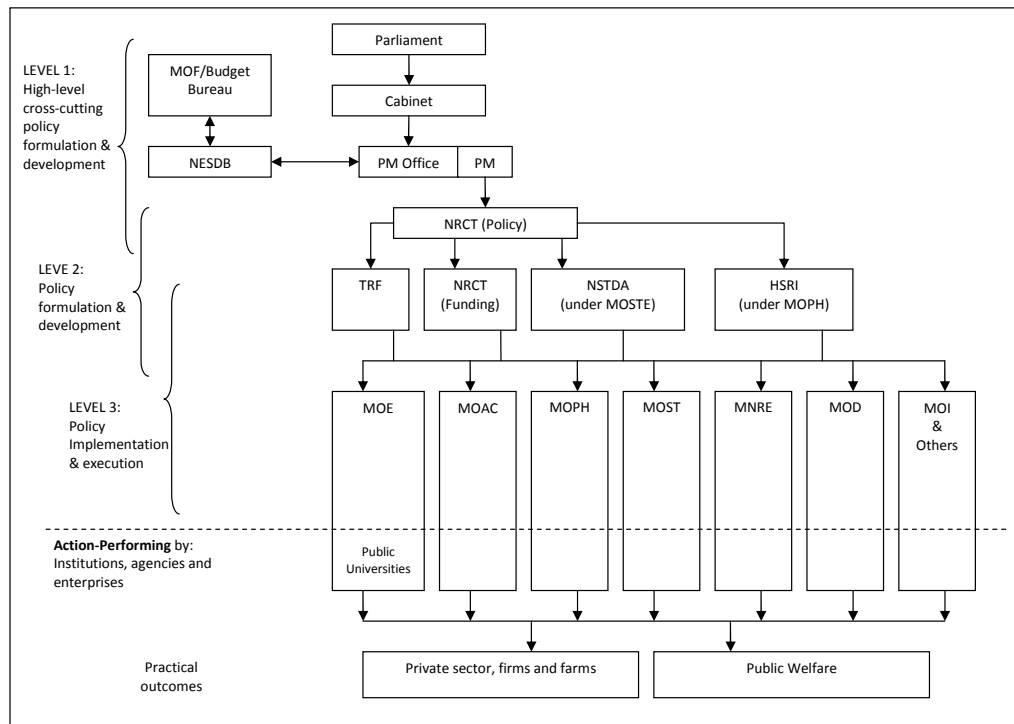
Note: NESDB = National Economic and Social Development Board, MOF = Ministry of Finance, PM = Prime Minister, NRCT = National Research Council of Thailand, TRF = Thailand Research Fund, NSTDA = National Science and Technology Development Agency, HSRI = Health System Research Institute, MOE = Ministry of Education, MOAC = Ministry of Agriculture and Cooperative, MOPH = Ministry of Public Health, MOSTE = Ministry of Science, Technology and Environment, MNRE = Ministry of Natural Resources and Environment, MOD = Ministry of Defence, MOI = Ministry of Inferior, Others include Ministry of Foreign Affairs, Ministry of Tourism and Sports, Ministry of Social Development and Human Security, Ministry of Transport, Ministry of Information and Communication Technology, Ministry of Energy, Ministry of Justice, Ministry of Labour, Ministry of Culture and Ministry of Industry.
Source: adapted from Krishna (2008, p.2) with some material from NRCT (2006, 2007).

The distribution of national research funds, formulated in accordance with national policy formulation (at 'LEVEL 1' in Table 6.3), is the responsibility of four main government bodies, namely: (1) the National Research Council of Thailand (NRCT); (2) the Thailand Research Fund (TRF); (3) the National National Science and Technology Development Agency (NSTDA); and (4) the Health Science Research Institute (HSRI). Government research funding would be allocated to either institutions (public and private) or individuals, depending on the policy formulation of each body (at 'LEVEL 2' in Table 6.3).

For academic staff in public universities responsible for 'action performing' (see also Table 6.3 above), they may apply for research funding from the four main bodies. The first body was their university. Academic staff may apply for supports from their universities (allocated via the Ministry of Education and given to the

university as a government block grant). The other three bodies are ministries whose policy formulation was relevant to their chosen problem areas.

As 2006–2008 statistical data showed, the three bodies distributing the highest government research funding were (in descending order) the Ministry of Education, the Ministry of Agriculture and Co-operative and the Ministry of Public Health (NRCT, 2006, 2007, 2008); 60% of research projects funded by government money were conducted by educational institutions under the Ministry of Education, and 75% of which were concentrated at six top-tier public universities, which were all traditional LAUs (NRCT, 2007, 2008). Two of the three studied universities were among these six universities, with the other one still ranked among the top ten in the system (CHE, 2005). In detail, however, the distribution of resources varies among different disciplinary lines and causes different academic involvement in research-related services as follows.

6.2.1.1 Social Sciences and Humanities

Academics interviewed from the group of social sciences and humanities felt that they received the least monetary funding and inputs compared to the other two groups. This is due to the nature of disciplines in the area whose activities were non-material intensive, with most of their academic operations being human-intensive. Agreeing with this conclusion, the NRCT (2007) reports that 70% of social sciences research comprised fieldwork research, 20% experimental and 10% documentary based. Accordingly, the majority of academic activity expenses were the cost of time and operational costs devoted to the activity rather than investment costs:

> 'There is a big difference between science-based and social-science based research. In my area, what we need is time and interactions in the field and writing. Having said that, social sciences publications require significantly more writing than those science-based. This is in contrast with the projection of funding; we normally need operational cost such as travelling and doing fieldwork. It is not very often that we asks for a big investment such as a new high-tech equipment or a new laboratory like sciences departments do.' (Participant: A-8, a Lecturer in Economics)

As a result, the main reason pulling social sciences staff away from becoming involved in service would be a time constraints rather than other reasons involving material resource availability.

6.2.1.2 Science and Technology

Compared with those of the social sciences area, S&T disciplines always received relatively more funding and input, internally and externally, for their academic activities. At present, there is an increase in S&T research funding and the number of research projects in accord with the national policy for increasing S&T human capital in the economic system (NESDB and World Bank, 2008). This national policy is confirmed by national statistics of research activity by disciplines presented in Table 6.4.

TABLE 6.4: National Research Activity by Type of Disciplines

	2006[*]			
	Project	**%**	**Budget** **(Millions of Baht)**	**%**
Social Sciences and Humanities	1,438	36.66	997.77	28.41
Sciences and Technology	2,975	75.85	2,307.23	65.69
Health Sciences	947	24.15	207.14	5.90
Total	**3,922**	**100.00**	**3,512.15**	**100.00**

	2007[*]			
	Project	**%**	**Budget** **(Millions of Baht)**	**%**
Social Sciences and Humanities	1,708	24.97	1,141.98	17.08
Sciences and Technology	3,744	54.74	4,543.09	63.93
Health Sciences	1,388	20.29	1,002.96	15.00
Total	**6,840**	**100.00**	**6,688.03**	**100.00**

Note: [*]the annual statistics include public and private funded projects.
Source: NRCT (2006, 2007).

Despite the funding and inputs received, it is assumed that S&T services would be delivered as consistent with the increased academic resources; however, the perceived value of regional services was found as one of the key reasons why they might be different. As one S&T academic staff reflected:

> 'Funding on sciences-based projects has increased; there are many sources of funds covering a wider range of sciences. Anyway, because of these many sources, we can decide on the projects we are interested then develop a proposal for funding, which I would say regional ones are not quite a challenge.' (Participant: C-8, a Lecturer in Industrial Chemistry)

As another reason, agreeing with Schiller (2006a) and Brimble and Doner (2007), S&T departments in Thai public universities, despite receiving relatively more support compared with other groups, were unable to apply the latest equipment to provide a responsive service to knowledge users, particularly those business

firms whose competitive advantages were tied to the fluctuation of innovative trends in their industries:

> 'The machines are old. The software is not up to date. Co-operations and services to industries are therefore limited.' (Participant: A-4, an Associate Professor of Engineering)

With regard to this problem, some academics blamed bureaucratic procedures of budgeting for not being flexible enough to promote responsive service. As a result, it would take too long for some out of date scientific equipments to be replaced:

> 'It is very normal for this public, bureaucratic, organisation. It takes time to get the new one. We get used to it. In fact, we get bored of it.' (Participant: B-8)

Additionally, the lack of sufficient resources was found to affect negatively the creativity of academic staff and the production of service responsive to the needs of private sectors. As a consequence, this problem was believed to lead to the low quality of S&T graduates, whose abilities could later become a knowledge spillover through graduate retention. As one revealed:

> 'It is bureaucracy. Getting new equipment, which is very expensive, takes a long time. Today's student are familiar with out of date machines. We might have a new model in the department, often left from huge-funded research projects, but the availability for student learning is just very limited. Most students therefore actually learn how to work with machines when they finish their study in the university and entered real business firms; it is a not desirable quality of graduates from the firm's side of view though. ...I say it from my own experience; there should be some kind of research to prove this.' (Participant: A-7)

6.2.1.3 Health Sciences

Health sciences academics presented the least anxiety about the availability of resources. Similar to the group of S&T staff, national policy today also aims at increasing the number and capability of the health sciences workforce. As confirmed by an Assistant Professor of Medical Technology from University B:

> 'Never — no worries about scarce resources. Health sciences projects always get a good support from the university and the government.' (Participant: B-6)

Academic staff in this group received support from various government bodies. The main bodies include the Ministry of Education and other main national

research funding agencies such as TRF, NRCT and NESDB. In addition to these agencies, health sciences academic staff could also receive support from the Ministry of Public Health (MOPH) that provided funding and inputs through the Health Science Research Institute (HRSI) and was directly responsible for health science education and research.

In accordance with the substantial support received, the three universities studied each operated university hospitals and health services centres, which served all academic activities covering teaching, research and academic services:

> 'As a whole picture, the university always gets a good score on its performance evaluation. One of the reason is that we have the university hospitals which health services are part of the indicators [academic services KPIs]. Besides, we do a lot of things inside these hospitals and health centres; Teaching and research also take place there using medical equipments.' (Participant: B-1)

With sufficient resources and capital investment in medical equipment and laboratories, co-operation with industries and partnership building were other significant services resulting in various benefits for academic staff, such as fund raising and research funding. In this respect, there were clearly two-way benefits from this form of service. As an academic manager, whose academic background was in Medicine, mentioned:

> 'We have excellent medical personnel. This makes us very unique and reputable. With this quality, we get multi-million grants and funding, nationally and internationally. Then, with the supports, we are made possible reaching a high ranked in not only research, but also teaching and research excellency.' (Participant: C-2)

6.2.2 TEACHING WORKLOAD

The three universities show a range of student: staff ratios, but the relativities between subject areas are very similar. As Table 6.5 below presents, staff:student ratios were very high in the group of social sciences and humanities of these universities, followed by the group of S&T, with the group of health sciences having the lowest ratios.

Table 6.5: Staff and Student Numbers at Three Thai Universities

Statistic	University A	University B	University C
Student Enrolment	**30,945**	**31,368**	**25,506**
Social Sciences and Humanities	20,811	15,820	10,667
Science and Technology	8,410	12,056	9,029
Health Sciences	1,724	3,492	5,810
Academic Staff	**1,338**	**1,707**	**2,149**
Social Sciences and Humanities	659	491	514
Science and Technology	347	703	667
Health Sciences	332	503	968
Staff: student ratio	**1:23.1**	**1:18.4**	**1:11.9**
Social Sciences and Humanities	1:31.6	1:32.2	1:20.8
Science and Technology	1:24.4	1:17.2	1:13.5
Health Sciences	1:5.2	1:6.9	1:6.0

Note: Statistics as of 2005.
Source: Commission of Higher Education (CHE, 2005), University A 2005 Statistics and Information, University B Annual Report 2005, University B Human Resources Statistics 2005, University C Annual Report 2005, University C Human Resources Statistics 2005.

6.2.2.1 *Social Sciences and Humanities*

With regard to the relatively high ratio, social science academics often experienced time constraints arising from their teaching commitments; routine work, such as preparing teaching materials, giving lectures, providing student advice, conducting course exams and student grading, were time-consuming processes. Approximately, more than 60–70% of their time was spent on teaching. As one member of staff explained:

> 'It is not just about teaching; preparation and after-class works are even more time consuming activities. Additionally, the faculty teaching plan changes every year, depending on the availability of resources, staff included; in some years, we have many on leave staff while some other years many staff are appointed to administrative positions inside and outside the faculties. With these factors, teaching works are not just a simple work, particularly for such a high ratio of student: staff faculties such as my faculty.' (Participant: A-8, a Lecturer in Economics)

Similarly, one senior manager mentioned:

> 'It is true that social sciences academics have less time to perform other works than teaching, compared to those in other sciences areas. Not to mention services; even research, which is more important, it is hard for them to allocate sufficient time to do the work.' (Participant: B-2, a Vice President)

6.2.2.2 Science and Technology

Despite not having such the highest ratio, S&T staff had the similar constraining factor to social sciences staff regarding the heavy teaching workload. This is due to an increased in academic programmes using a direct admission system of the faculty[49].

> 'There are many programmes operated within this faculty; in addition to normal business hours, some programmes are scheduled in the evening and some are during the weekend. I, and most of academic staff in this faculty, have teaching hours throughout the week by far more than the minimum load. Besides, some staff are invited to give lectures for courses in other universities.' (Participant: A-4, an Associate Professor of Industrial Engineering)

The above finding was consistent with Sharma *et al.* (2004), who find that the majority of Thai academic staff spent more than 50% of their time on teaching related activities. As a result, teaching commitments lessened the staff time available to perform other works.

6.2.2.3 Health Sciences

In contrast to academics from the other two disciplinary groups, the problem was rarely reported by academics from health sciences departments:

> 'If you look at the full-time equivalent student-staff ration, you will see the difference; the ratios for social sciences programmes are about 30-40 students per staff whereas those for the other two areas only range from five to ten something.' (Participant: C-2, a Vice President)

As a result, health sciences academics had significantly less tension surrounding their teaching commitment. This is partly due to student enrolments in these programmes of academic staff depended on the availability of teaching and learning resources other than the number of academic staff. As explained by an Assistant Professor of Technical Medicine:

> 'The student number is just about right, not too many. Health sciences faculties cannot easily open new programmes or increase the number of students since any increased one needs more medical equipments and learning facilities. The university management are aware of this fact.' (Participant: B-6, an Assistant Professor of Medical Technology)

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[49]The 78 LAUs in Thailand, both traditional and former teaching-institutes, share the Central University Admission System (CUAS), the national standard admission system for undergraduates, hosted by the Office of the Commission on Higher Education (CHE). In addition to this system, individual faculties in these universities may operate their own direct admission for graduate and postgraduate programmes and additional programmes for undergraduates approved by the CHE.

Furthermore, in terms of possible knowledge spillovers, the university hospitals and health services units worked effectively in harmony with teaching and research such that students learned and gained experiences. In this sense, if these students remained in the area after their graduation, their knowledge and skill subsequently be of particular value for the region.

6.2.3 ACADEMIC PERFORMANCE EVALUATION

Since the principle of academic service was to make academic performance yield practical outcomes and help promote social and economic development, some quantitative evaluating scales emerged from the qualitative perspective, such as 'the percentage of satisfaction levels of those who receive services from the institution' and 'the number of people or organisations who gained benefits from the activity'. Bearing in mind the measurements, for evaluational and promotional purposes, individual academic member are required to report their service undertaken in both descriptive and quantitative forms.

6.2.3.1 *The Problem of Scales for Service Evaluation*

Notwithstanding the principle above and the measurements set, the preparation of service performance reports lacked standardized scales for evaluation, even though quantitative scales were employed. As reflected by a Lecturer from University B:

> 'The scale of satisfaction? What is the difference between the scales one and two or two and five measured by different people? Is it possible that people rating three for one services have an equal satisfaction to the other one rating five for the same service?' (Participant: B-8)

Academic staff from different disciplines were affected differently by the scales of evaluation employed. In particular, social sciences and humanity academics appeared to have a noticeable disadvantage in the evaluation criteria. As discussed earlier, academic activities in this disciplinary group required relatively fewer resources compared with the other two groups. Thus, to evaluate service performance using scales such as 'budget spent' and 'revenue generated' was argued as inappropriate. As an academic from the Department of Linguistics mentioned:

> 'When I run professional language course, how could I even propose for a large amount of grant when I mainly work on books and articles?' (Participant: B-5)

To have the highest staff: student ratio was another disadvantage of social sciences and humanities staff. As presented earlier, these staff had relatively more teaching commitments compared with those in S&T and health sciences departments; they therefore had more constraints on devoting their time to service activities. As one member of staff claimed:

> 'It [academic promotional system] has always been not quite fair for social sciences. Not to mention the different disciplinary natures, a very basic factor such as student numbers is enough to be a solely cause disadvantaging social sciences staff as we have less time to spend for other activities.' (Participant: A-3)

Additionally, in terms of research-related service, they also experienced more tension concerning the 'time investment' and the 'number' of research projects. By nature, they could produce significantly fewer research projects compared with the other two groups of scientists. As one gave an example:

> 'For social sciences subjects, one or two papers per year can be something huge. For example, I spent 9 months observing locals in the Yunnan[50] province of China before I could come up with some study results to present. As this is a project about the GMS, is should be accounted as both research and regional service, isn't it? Anyway, the point is, by nature, we spend relatively more time for publications.' (Participant: C-6, an Assistant Professor of Anthropology)

Furthermore, to use the monetary value of research services as an evaluation criterion also caused these staff another disadvantage. To explain further, unlike other two groups of discipline, social science research mainly required operational costs, not capital investment. The majority of research produced in this area involved fieldwork investigations.

Bearing in mind several disadvantages set out above, the performance evaluation system was seen as a barrier to systematic service performance for social science staff; the lower accountability of evaluation scales lessens the ambition of these staff to become involved with service activities.

6.2.3.2 *The Problem of Service Accounting*

Surprisingly, academic staff in the other two disciplinary areas also experience a problem with academic evaluation of their service performance; despite being

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[50]Yunnan is located in South-western China and included as a part of the GMS (Greater Mekong Subregion), the University C's region. See detailed discussion about the university regionalisation of University C in Chapter 4.

reported as having an advantage over those from social sciences and humanities, however, another was reported.

To explain further, as the academic workload report was normally divided into sections, it is often the case that teaching-related and research-related services were under-accounted as the staff reported their performance by fitting the activities into that part of the report form they considered as best explaining their performance. This problem was similarly reported by staff from all the groups of discipline. Below is an example given by one member of staff:

> 'The recent project of mine was relevant to local food industries. I was not quite sure how to report it quantitatively in the service section. I mean, I was not quite certain how many hours I spent making connections with locals or how many people would benefit from my research findings. Also, I did not know how much income my project would generate; maybe none. It was therefore much easier for me to make a report only in the "research performance" section regarding how much the project was funded and how many publications I had. Nonetheless, I also provided a bit of descriptive information about how the public could make use of my findings.' (Participant: C-6)

6.2.3.3 *No Evidence of Gender Debates*

Another interesting finding, concerning the system of academic performance evaluation using 'objective' measurements[51], is that no evidence of a gendered academic profile was found to affect academic perceptions and practices of service. Recalling the 24 academics interviewed, 15 of them were male and nine were female; none of them raised their concern about the gendered profile. This finding is different from previous studies in the area carried out in more developed systems (*e.g.* Davies and Thomas, 2002; Poole *et al.*, 1997).

Bearing in mind that the academic service function can be defined to cover a wide range of activities, such professional, institutional, outreach and student services are usually included (Colbeck, 2002; Davies and Thomas, 2002; Macfarlane, 2007). In their international study carried out in universities across the globe[52], Poole *et al.* (1997) discover some major differences between male and female academics in terms of the service items. These differences involve issues about income generation of services, the service characteristics (internally within the institution vs. externally orientation) and personal beliefs and values of services being seen as a contribution to the academic identity.

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[51]According to the discussion in Section 5.2.4.2 of the previous chapter (pp.151–153).
[52]The academics studied are from universities in eight countries, including: Australia, Germany, Hong Kong, Israel, Mexico, Sweden, UK and USA.

In the UK system, Davies and Thomas (2002, pp.184–186) reveal that female academics find it difficult to fit in the 'macho competitive culture', which is 'centred around the instrumental, output orientated, competitive individual', unless they have a strong research profile while also have some anxieties in this environment. Considering this previous study, the finding of no gender issue emerged from the interview data collected is assumed to be related to academic staff in the Thai university having a less research capability compared to those in the more developed university.

To explain further, despite the imported concept of performance measurements and evaluation from the more developed university, the competitive environment among individual staff regarding the research profile of the Thai university is not yet as strong as in the developed system; as no gender issue revealed, it is assumed that both male and female academics are correspondingly adapting themselves to the system. This assumption is confirmed by both genders with a similar qualification presenting some commonalities of their service experience that are different from the others in the different rank; such empirical findings are provided next.

6.3 ACADEMIC QUALIFICATIONS

Recalling the selection of interview participants[53], Thai academic staff can be divided by the academic position held into four groups: (1) Lecturers with no academic position, (2) Assistant Professors, (3) Associate Professors and (4) Full Professors. Table 6.2 outlines the academic promotional criteria:

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[53] As discussed in Section 3.3.3.2 of Chapter 3 (pp.91–92).

FIGURE 6.2: Academic Promotional Criteria
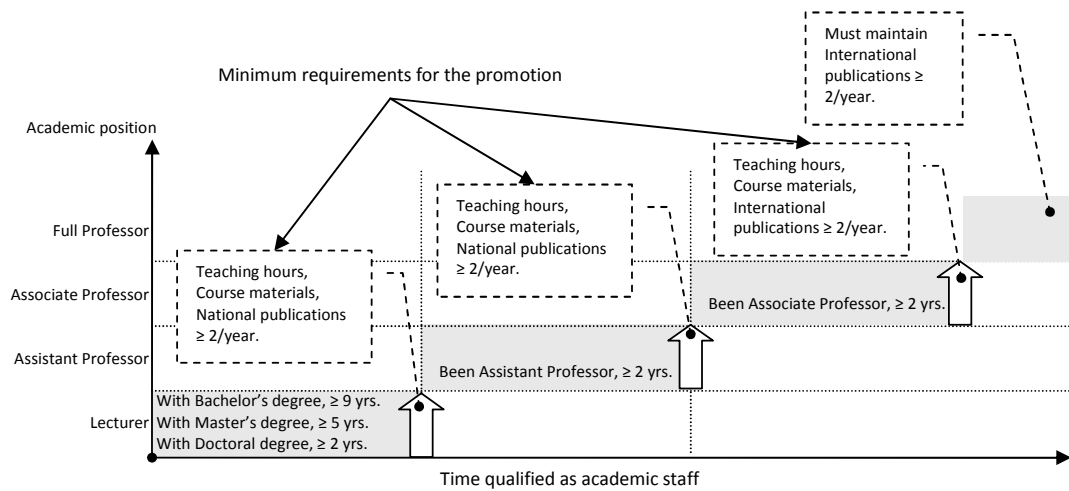
Source: developed by the author after the Government Gazette (Secretariat of the Cabinet, 2007).

Implicit in these academic positions, academic qualifications could be differentiated by the accumulative academic experiences related to the time expended as an academic member and the academic position held. In this sense, academic staff could be divided into two groups, junior and senior (Table 6.6).

TABLE 6.6: Junior and Senior Academics
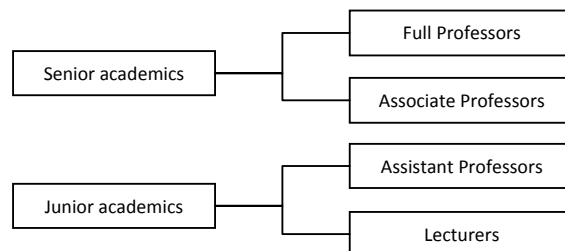
Source: developed by the author.

To explain further, assistant Professors were classified as junior academics because this position in the Thailand context did not ensure a high qualification, particularly in terms of research capability. Supporting this point, Liefner and Schiller (2008) find that most of Thai academics present only 'low' or 'intermediate' levels of academic capability due to the lack of research competency, insufficient public funding for advanced scientific equipment, and the lack of systematic management of the intellectual property.

With respect to different academic qualifications, three professional work characteristics relevant to the service function can be identified, including: (1)

different individual productivity, (2) different levels of career assurance, and (3) different values of public commitment.

6.3.1 INDIVIDUAL PRODUCTIVITY

With less experience in the career compared with senior staff, junior staff relied mainly on the academic evaluation criteria where teaching, research, and services are listed in separated sections. For this reason, these staff tended not to perform integrated work, and prioritized services as the least importance:

> 'I focus on research as it is essential for the evaluation. With the position, not only the career would seem more assured but also my academic capability would be qualified. By then, when I am good at my work, I would be confident to work with the public to make some good impacts on that outside society.' (Participant: B-8)

Being a senior academic did not necessarily mean being proactive about academic service. Nonetheless, with the longer experience in their career, senior staff were likely to understand better the way in which their expertise could be used for the services yielding practical outcomes. In this regard, these staff tended to have both basic and applied knowledge in their field, because of the time spent in the career and their academic position confirming their research capability. Their qualifications were therefore found to be drivers for services:

> 'You cannot be in a rush; that's the truth. Experience is something you gain along the way of working in this career. When you first started working, you would just rely on what was said in the books. Then, when you have worked for quite some time, you tend to have more fun relying more on your ability and experiences. You will enjoy dealing with real-life cases and the fun part of it is when you can solve real problems.' (Participant: C-4)

Additionally, senior academics were more likely to be approached by knowledge users seeking knowledge service to make sure their needs would be fulfilled:

> 'It [demand for service] often comes to me through personal connections and words of mouth.' (Participant: A-3)

Consistent with the above example, CHE (2005) revealed that only 15% of the whole population of academic staff in public universities are Associate Professors and only 1% are Full Professors. As a result, senior staff were always in demand to deliver knowledge service, particularly in the forms of commercialising knowledge and the production of codified knowledge, or academic publications. As one senior manager, whose academic position is Full Professor, confirmed:

> 'Projects come to me, I do not seek out for them. Those demanding thorough research and excellent services want quality; from their point of view, high profile academics can guarantee what they need.' (Participant: A-1)

Consistent with the above manager's perception, a senior academic remarked:

> 'It's normal that experience and recognition take time. Before becoming an Associate Professor, I used to be a junior staff myself. I know how it was; working hard with a tiny salary or putting all the effort to write competitive grant proposals just to know that it was turned down in the end. But that would not last forever, would it? Having been working for 25 years, experience, recognition and good connections are what I have now.' (Participant: A-4)

Furthermore, it is often the case that senior academics had experiences of being appointed as academic managers, middle-level or senior. Their experiences helped them understand the management perspective and the expectations of academic performance, services included. While the majority of academic staff, who were junior, might make sense of service as narrow, as community service only, senior members were likely to express their understanding more like the management perspective; integration of services into the mainstream teaching and research was an ideal:

> 'There are minimum workloads requiring academic staff to fulfil. Teaching is an obligation, a routine work. Research is more flexible as we can make our own choices of areas of problem. This is similar to services. The choice we make means the knowledge of real life cases to be brought back to the classroom or turn it to academic research then the publication.' (Participant: C-3)

6.3.2 CAREER ASSURANCE

Most of the academics classified into the junior group have been hired from 2003 onwards. According to the 2003 Act of Administrative Procedure for Civil Servants in Higher Education Institutions, academic staff being hired under the act would be university employees, not civil servants like those who had been hired before the Act was enacted[54]. With regard to their length of time qualified as an academic, most of junior staff therefore possess either no academic position or an Assistant Professor position (Table 6.7).

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[54]See discussions about the academic employment policy in Section 5.3.1 of the previous chapter (pp.155–158).

TABLE 6.7: Thai Academics by Positions and Employment Statuses, 2005

Positions	Employment Statuses	
	University Employees	Civil Servants
Full Professors	1%	2%
Associate Professors	2%	14%
Assistant Professor	5%	30%
Lecturer	92%	54%
Total	100%	100%

Source: Commission on Higher Education (2005).

In 2005, approximately 92% of staff with the university employee employment status were Lecturers, 5% were Assistant Professors, 2% were Associate Professor and only less than 1% were Full Professors (CHE, 2005). In the same year, approximately 54% of civil servant academics in Thai public universities were lecturers, 30% were Assistant Professors, 14% were Associate Professors and only two percent were Full Professors (CHE, 2005). The statistics imply that the majority of academic staff in Thailand lack high research capability.

However, both senior and junior staff were equally pressured to perform research in order that their academic careers were assured. This is reflected by the evaluation and judgement of qualifications; the choice of the successful candidate was appointed to the position proposed would be dominated by their record of published work. As one member of staff stated:

> 'Teaching, research, academic services, promotion of artistic and cultural affairs included are all academic work. However, only teaching and research that would be weighted for the promotion. Furthermore, it is an era of research-obsessed which I view it as a problem of the evaluation and judgement of academic staff. It sounds like a good researcher is seen as a good academic, which I contradict. I think a good academic might not necessarily be a good researcher and vice versa. Anyway, what happens is good academics who are not a good researcher can hardly be promoted.' (Participant: C-7)

In contrast to senior staff, junior academics, with less experience and recognition in the field, tended to be more obsessed about research. This is regarded by Hakala (2008, p.176) as 'a crisis of identity' whereby junior staff define the meaning of their academic identities concerning only the research dimension and ignore the traditional framework for understanding academic work.

As a result, some junior staff opted not to take part in any service dialogue if it would make them sacrifice their time for research. Also, they expected an understanding from their peers and middle-level managers, and as one claimed:

'Research is the top priority. If you do not deliver a good academic service, it would not be as critical for the career as not doing teaching and research. If I really cannot do service work, I am sure that the Head of Department would be understanding.' (Participant: B-7)

Additionally, further undermining the perceived important of required services, it was widely believed that international funded projects and international publications were valued more than local and national ones:

'It is understandable. To be competent in working on international projects or published your work at international level is essential for today's globalisation. This is evidenced by the academic promotional system; being able to communicate with the global society is the must. If you want to be promoted to a Full Professor, it is a required that you have to have international publications.' (Participant: C-3)

'International projects and funding are always prestige.' (Participant: B-5)

6.3.3 VALUES OF PUBLIC COMMITMENT

Public commitment was valued differently between senior and junior academics. Empirical data indicated that senior staff becoming involved in service were more likely to be motivated by their personal values of the university's traditional public commitment, whereas junior members were mostly motivated by peer pressure.

6.3.3.1 Personal Values

Senior academics having long been working in the universities claimed services as a traditional commitment of public academic personnel. This group of staff were familiar with performing the work without concern about any scales of systematic service evaluation; instead, they conceived the work as a basic commitment. As recalled by an Associate Professor:

'There were no rules saying that we must serve the society; we did it anyway. There is therefore no change in terms of the feeling that we are obligated to this, except seeing it a bit funny. I mean, previously I thought we must value it [service] first so we can do it properly. Using a scoring system for this kind of work is therefore a bit strange for me; it sounds like they [the university] put some unnecessary force on us while they do not really need to. Anyway, since it is true that not all academics serving the society, it should rather be something better than the scoring system which, clearly, does not quite work.' (Participant: C-3)

However, not all senior staff favoured the delivery of knowledge service to outside society; those doing so were mostly a type of the staff that Harvey *et al.* (2006, p.231) call 'achievers', whose motivation was inner-directed:

> 'I undertake services because I regard this function as the value of academic staff like me. I do not seriously value the work in terms of either the workload or performance evaluation. For example, I instruct two training courses open to rubber farmers. I think it must be very useful for them as the government agricultural support has changed significantly from last year; there are many new things these farmers should know.' (Participant: B-3)

6.3.3.2 *Peer Pressure*

For junior academics, empirical data indicated that their positive personal values of services could be enhanced by having interpersonal connections with departmental peers, particularly those senior staff who highly valued academic work on public issues. This professional conversation among peers was seen as an enabling factor of the institutional context that oriented the university staff towards constituent cultures constructed within the disciplines (Amey, 2002). According to a Lecturer from University B:

> 'I like it when my senior peers ask me to join some social projects when they sounds like a good one. It is not just some kind of funny stuff such as going out for a road show, playing around in a PR [pubic relations] events of the faculty or the university. I like it when they invite me to join some interesting project which I would not get it my own as I do not have that good connection. However, sometimes funny stuff come and I would just like "what the heck are we going to do that? Can't we just ask some other staff to do it." Anyway, I never say it out loud.' (Participant: B-7)

Also, as discussed earlier, senior academics were more likely to proactively perform 'integrated work' (Colbeck, 2002) and to have more connections with public and private entities outside the university. It was clear that to match juniors with similar areas of expertise to these senior staff would help increase their opportunities for service involvement. As one shared her own experience:

> 'As a new academic, without working with this academic peer of mine, I would not have any idea about the enjoyment from working with the public outside the university, sharing my expertise in the field to benefit their works in practice. It is my altering academic experiences, learning what he does and receiving his coaching on working on my own projects. I have leant that academic services are not actually distinct from teaching and research; if we know how, we can always link them together and that is the worth of the time spent in the activity.' (Participant: C-8)

6.4 Linkages Between Institutional and Individual Perspectives

Liefner and Schiller (2008) carry out a multi-case study in five leading Thai universities. They examine academic capabilities and involvement in innovation systems and then conclude that (p.291):

> '[T]here are some promising approaches towards intermediate academic capabilities, but they are in general not pushed ahead systematically by the respective universities or government agencies. Most of the analysed cases have the potential to increase several dimensions of academic capability and thus provide for improved functional integration of different academic functions. However, only a few of these approaches have yet reached advanced academic capabilities.'

Liefner and Schiller (2008) explain their finding above concerning the university institutional profiling. That is, the different levels of research and teaching across different universities are claimed as the primary reason for the difference in academic achievement of advanced academic capabilities. Despite they suggesting policy makers to promote academic capabilities, the profiling of individual staff is not included as part of their detailed analysis. In other word, their suggestion is given only from the national and institutional points of view. This is similar to other previous studies (*e.g.* Chaminade *et al.*, 2008; Intarakumnerd *et al.*, 2002; Intarakumnerd and Chaminade, 2007) whose recommendations are similarly drawn from these points of view, despite the problem of academic involvement in the knowledge transfer systems always being raised as the key concern.

Bearing in mind the national policy on service provision, the previous chapter discussed the institutional profiling taking into account the rhetoric of the KE and its influence on the university organisation being shaped to serve the national expectations. Recalling these findings, the institutional action of service appeared to reflect institutional expectations of systematic services, as summarised in Table 6.8:

TABLE 6.8: Conception of the Building of the Knowledge Economy

	National perspective	**Institutional perspective**	**Expectations of academic roles**
Principle	Knowledge economy (KE)	Graduate production; Knowledge production; Engagement with society.	Teaching; Research; Academic Services.
Knowledge region	Regional innovation systems (RISs); Technology transfer mechanisms (TTMs); University-industry linkages (UILs); Public services.	Innovations and knowledge transfer; Proactive services; Teaching-related and research-oriented activities.	Acknowledgement of the institutional service mission.
Action	Development of the KPIs of academic services	Organisational structure & academic management of relevance to services; Systematic services.	Systematic delivery of regional services

Note: KPIs = Key performance indicators.
Source: developed by the author.

As seen in the Table 6.8, service missions and diverse services units developed at the three universities[55] evidenced the formation of formal channels of activities of service delivered to the outside society; this action was the response of university to national expectations. In the light of this, they facilitated the systematic performance of services; any services delivered using the designated system would be formally accounted.

Filling in what is missed from previous studies, the research findings presented in this chapter revealed various aspects from individuals' point of view found as the root of the problem of academic capabilities. Based on these findings, distinctions between academic and national and institutional perspectives leading to the underused of the designated systems can also be identified as follows.

6.4.1 POOR INTERNAL CONNECTIONS

Notwithstanding the formation of service units throughout layers of the organisational structure[56] and the university emphasis on academic work being performed with the university's recognition, it was evident that individual academics often saw themselves being detached from those systematic procedures.

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[55]See also Tables 5.3, 5.4 and 5.5 (pp.140–142).
[56]See details in Section 5.2.1 in the previous chapter (pp.138–145).

The main reason was the lack of information concerning the 'match-making' of demands for service from outside and academic members. Accordingly, these staff appeared to lack the effort to approach the university service units; rather, they played a passive role waiting to be approached by either professional staff of the unit or peer academics in charge of the unit operation. As one academic staff stated:

> 'There are several research and service units as well as centres of excellence. To make contact with these units is voluntary, not compulsory. I admit that I am not really involved as I have very little idea about what these units do. I think if they need participation of academic staff, they might contact us themselves, probably through the department.' (Participant: B-8)

Consistent with the above view, an Associate Professor from University C, who was appointed as the Programme Director of an agricultural research centre, revealed that:

> 'This is an inter-disciplinary centre, although the centre objective focuses on agricultural studies. Academic staff who work with the centre are from diverse areas, some from agriculture, some from business management and some from economics. Initially, we invited these academics to join our projects. At present, some remain whereas some no longer work with us, as working in their areas in their departments is their priority. As a result, most of those remaining are from the Faculty of Agriculture.' (Participant: C-3)

6.4.2 SOME INDIVIDUAL MISCONCEPTIONS

Despite activities listed in the services KPIs, academic staff were not always guided by what being listed; some of them presented a different understanding of academic services from the national policy and institutional perspectives. The perspectives of these staff, approximately one-third of all interview participants, were found to be inconsistent with the national policy and management perspectives regarding knowledge transfer and innovation systems. Some of them viewed these activities as mainly conducted in areas of S&T. As an Assistant Professor from University A mentioned:

> 'Despite the national policy, there are a number of distinctions between science-based and social science-based disciplines. It is discerned that the priority is given to those science-based ones.' (Participant: A-5)

Additionally, while the national policy and management perspectives were joined with the expectation for **KPIs of academic services**, the perspective reflected by some of these staff was narrowly indicated as **community service** only:

> 'Academic services is like a charity; it is voluntary and nothing is serious. If we are happy to do serve the community, then we join the projects; otherwise we do not have to.' (Participant: B-7)

> 'For community services, one or two jobs per year is enough.' (Participant: C-7)

As a consequence of this narrow interpretation of the function, the service delivered was often a one-way flow of knowledge. However, community service is only a part of the diverse forms of academic involvement in approaches to knowledge transfer and innovation systems. With a wider understanding than the typical meaning of community service, those forms of activity could be carried out as following either **public service** or **public scholarship** paradigms (Figure 6.3).

FIGURE 6.3: Potential Academic Involvement in Knowledge Services
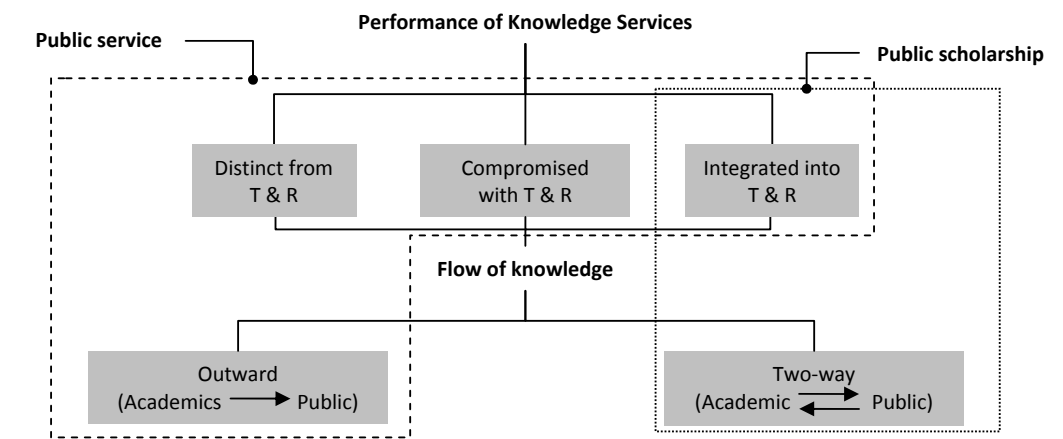
Source: the literature review, copied from Figure 2.19 in Chapter 2 (p.58).

6.4.3 THE LACK OF A SHARED SERVICE VISION

According to interviews with academic staff holding no administrative responsibility, it was the responsibility of middle-level academic managers, at departmental and faculty levels, to be concerned about the KPIs. For instance, a Lecturer from University B indicated that:

> 'If they [Heads of department] want our help, they would ask. The requests asking us to do more service would be more often when these managers are pressured by the university to report more faculty service performance.' (Participant: B-8)

As a result, academic staff tended not to follow the expectations stated in the list of the KPIs, which implicitly suggested that academic services covered a wide range of service activities including both those delivered as distinct from other work and also those integrated with the mainstream teaching and research.

6.4.4 THE UNDERMINED SERVICE OF THAI WISDOM

Bearing in mind the KE concept given in the literature, the development of innovations should not be limited to any particular area of knowledge; instead, any areas that serve the economy with 'creativity' leading to an increase in competitiveness should be promoted. This idea is also adopted in the developed UK system that universities are regarded as 'powerful drivers of innovation and change in science and technology, the arts, humanities, design and other creative disciplines' (DTI/Dfee[57], 2001 cited in Charles, 2003, p.9).

Consistent with the above view towards innovation, there is a government policy in Thailand indicating that:

> '. . . the research should yield practical outcomes which can be utilised for development of community production, business development and public management systems as well as laying the foundation for long-term development for the purpose of creating innovations based on Thai wisdom. The innovations will thus become value-added products, allowing the communities to benefit from their intellectual properties.' (OEC, 2003b, pp.8–9)

Despite the above principle, innovations of Thai wisdom were often misinterpreted. Regarded as an evidence collected from the three research sites, 10 out of 24 academics interviewed equated endogenous Thai traditional knowledge with less innovative developments. As one reflected:

> 'It would not be anything new in terms of innovations if the problem areas were local.' (Participant: B-8)

Additionally, Thai wisdom was also equated with local knowledge as being unique to places, which was not viewed as a kind of advanced knowledge:

> 'It dose not sound big; it instead sounds like something being small and localised and not quite significant for a wider academic community. It might not be that small, I do not know, but it is my impression of the Thai wisdom.' (Participant: C-8)

For the university's surrounding region, it is arguable that this misinterpretation of Thai wisdom led to the undermining of service facilitating regional innovation. This may be evidenced by the following quote:

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[57]Department of Trade and Industry/ Department for Education and Employment.

> 'To me, it is funny; we admire Western knowledge and undermine the Thai wisdom. It is even funnier when national publications being weighted [in the academic promotional criteria] less than those being published in English.' (Participant: B-5)

Notwithstanding the undermining caused by the misinterpretation discussed above, knowledge delivered at regional level was not insignificant; empirical experiences showed that resources existing within the university's region were often used for the production and provision of knowledge. As one shared her experience:

> 'I do not care if some 'real Thai knowledge' is undermined by Thai people. I experienced it many times myself of how excited European professors were when I presented my research about an ancient technique of using refined tamarind seeds substance as a permanent paint, which would last for centuries.' (Participant: C-5)

6.5 CONCLUSION

Academic members in public universities vary in terms of administrative positions, academic and professional backgrounds regarding the subject areas from which they are. Taking into account these variations, this chapter discussed their perceptions and practices of services to the region. By doing so, this chapter also examined a range of academic activities recognized as the characteristics of knowledge services at regional level reported by individual academic members, based on their own experiences.

Then, the chapter discussed these academic perceptions and practices in comparison to the national perspective[58] and the institutional expectations and organisation of academic service[59], bearing in mind the national rhetoric of building a KE in Thailand with a special attention paid to the local and regional communities, regarded as the foundation for national development as a whole. As a result, the discussion revealed essential factors concerning the difference in perspectives that led to individual staff lacking systematic participations in the service the society.

Presenting a further step of the theory construction, three hypotheses regarded as the possible answers to the questions **what** and **how** individual factors affect the performance of academic services to the region are developed as presented in Table 6.9:

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[58] As discussed in Chapters 1 and 2.
[59] As discussed in the previous chapter.

TABLE 6.9: Theoretical Code of Individual Profiling Proposition

What	How
Reasons for individual staff lacking systematic performance of academic services	Despite the institutional organisation, academic staff **do not fully use the designated system** for their services. The **underused system** is caused by **under-accounted** and **undermined** services. The **under-accounted** and **undermined** services happen at academic departments formed following the ordinary disciplinary fashion of academic community.

Note: A detailed coding structure comprising all developed codes, categories, coding families and theoretical codes is provided in Appendix E.

Source: developed by the author.

This chapter is the final part of the findings series. The next chapter will discuss these findings and make recommendations on service work of Thai academics in order that their services to the region could be enhanced.

Chapter 7

RECOMMENDATIONS
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7.0   INTRODUCTION

The majority of existing literature in the areas of KE and approaches to regional
knowledge transfer in Thai communities has been conducted at the policy-making
and institutional level; an explanation of individual academic involvement is
missing from the literature. Therefore, previous studies (*e.g.* Intarakumnerd and
Chaminade, 2007; Liefner and Schiller, 2008; Schiller, 2006b) suggest that this
missing part needs to be dealt with further.

Findings presented in the previous three chapters have attempted to fill the part
missing from the literature mentioned above. In this regard, the researcher was
able to identify in detail factors influencing the lack of systematic academic
services, and concerning the regional, institutional and individual profiling of
individual staff.

As these findings showed, the performance of individual knowledge services by
academic staff was significantly influenced by the profile of the university in
which they work as well as by the region surrounding the university.
Additionally, the profile of individual staff themselves, concerning their academic,
administrative and professional backgrounds, was found to underpin their
diverse perceptions and practice of service.

However, the service was often found to be 'misconceived', 'under-accounted' and
'undermined' in terms of systematic performance. This chapter therefore intends
to suggest a possible solution to help public universities to overcome this problem,
bearing in mind the extended understanding of academic service gained from this

study; it presents 'a strategic thinking' of regional services as the basis for developing 'a strategic planning' for service performance.

Prior to this study, there were no known studies, particularly in the Thailand context, providing a conceptual base for the enhancement of systematic services. The presentation of this chapter is therefore expected to throw some light on the way in which regional services could be performed as an efficiency-oriented function, rather than letting this part of academic work be conceived as 'a voluntary third' as was previously the case.

To be used to underpin the framework of the thinking, the findings were not only 'theoretical concepts' emerging from the empirical data bounded within the case boundary; rather, as Chapter 3 discussed[60], they formed 'a theory' that has 'an explanatory function' being able to explain academic work concerning the research inquiry (Burden and Roodt, 2007, p.13). Therefore, bearing in mind the research findings, the ideas were developed in respect of existing organisational structures and environments of Thai pubic universities and their academic communities. By doing so, this chapter helps to illustrate the implications of the substantive theory developed as an eventual outcome of this study. In other words, it helps to emphasize the 'explanatory function' of the theory (Figure 7.1).

FIGURE 7.1: The Explanatory Function of the Developed Theory
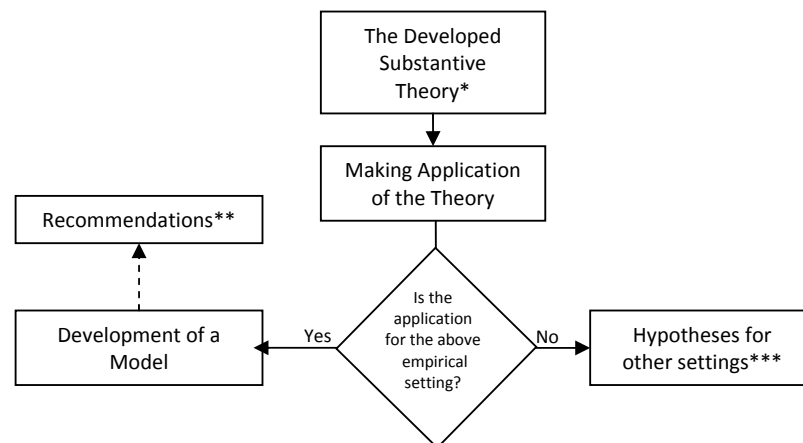
Note: *presentation of the developed theory is divided into three parts and presented in the previous three chapters; **recommendations for the setting of this study are given in this chapter; *** theoretical implications and limitations of the theory is presented in the next chapter.
Source: extracted from Figure 3.20 in Chapter 3 (p.113).

This chapter is divided into five sections. The first section illuminates the necessity for academic departments to develop a strategic plan for regional services. The

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[60]See the discussion in Section 3.5.2 (pp.112–113).

second section suggests how the university region is to be understood as the basis for a service strategy development. The third section proposes five components of strategic thinking as the basis for developing the plan. After that, the fourth section suggests three departmental messages to be sent to senior management regarding the plan developed. Finally, the fifth section discusses four departmental cultures regarded as enabling factors for regional service.

7.1 STRATEGIC THINKING

As introduced, the presentation in this chapter deals with 'strategic thinking'. **Strategic thinking is not strategic planning**. Macmillan and Mahen (2000) indicate four key elements of strategic management: (1) context, (2) strategic thinking, (3) strategic content, and (4) strategic action. Given a context of operation, Heracleous (2003, p.49) points out the purpose of strategic thinking as 'to discover novel, imaginative strategies which can re-write the rules of the competitive game and to envision potential futures significantly different from the present'.

As a consequent process arising from strategic thinking, strategic planning would be undertaken 'to operationalise the strategies developed through strategic thinking' Heracleous (2003, p.49). Therefore, the thinking could later be regarded as 'a strategic planning' only when 'strategic content', comprising practical **action plans** and **the performance evaluation criteria**, has been clarified (Figure 7.2).

FIGURE 7.2: Strategic Thinking and Strategic Planning
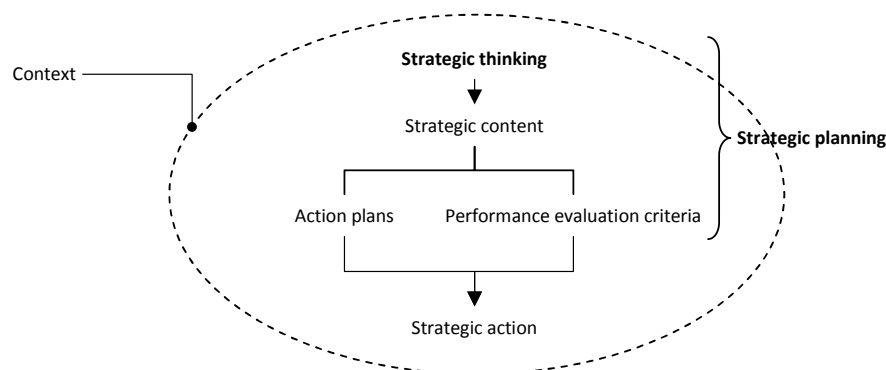
Source: developed by the author with some materials taken from Heracleous (2003) and Macmillan and Mahen (2000).

According to King and Cleland (1978), strategic planning is about **goals** and **the strategies** required to attain the goals. Considering the required strategies, Whittington (2001, p.23) finds that 'strategies are not chosen, they are

programmed'. Implicit in this, given organisational goals, strategies are to be tailored concerning particular characteristics, structure, environment and resources of individual organisations.

7.1.1 MAKING USE OF THE RESEARCH FINDINGS

To employ the notion of strategic thinking in order to form recommendations from this thesis, findings from the previous three chapters are to be utilised as the basis for tailoring a strategy. To recall the main point so far, Chapter 4 helped outline the ideas of university academic members about their university regionalisation, which helped guide these staff not only regarding regional needs but also about regional inputs into their work activities. Then, Chapter 5 helped to illustrate the university's institutional organisation of relevance to services. Finally, Chapter 6 helped to clarify the disciplinary fashion and academic cultures within traditional universities, which were found to shape individual services performance.

To develop a strategy, Mintzberg (2004, p.14) states that the most basic requirement for strategy development is to understand the relationships between 'leadership plans and intentions' and 'what the organisations actually did' in order that the 'origin' of strategies could be investigated. Considering this idea, Chapter 5 and Chapter 6 already discussed these two components, namely the institutional perspective and academic staff perspective, their operational experiences included (Figure 7.3).

FIGURE 7.3: Positioning the Required Strategy
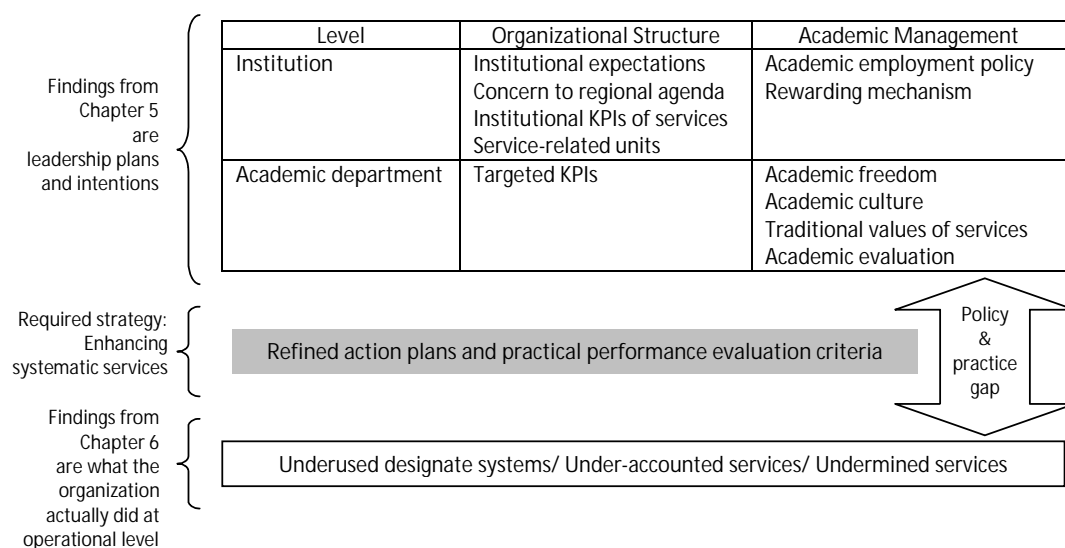
Source: developed by the author with some materials taken from Mintzberg (2004).

7.1.2 STARTING THE THINKING

Agreeing with several studies in existing literature (*e.g.* Amey, 2002; Fairweather, 1996), empirical data suggested that an enhancement of academic services would best be carried out starting from department level, which was the operational level of academic activities. Consistent with this, Rhoades (2001) finds that there are diverse departmental cultures across disciplines leading academic departments to have different goals and productivity functions.

The researcher therefore proposed that strategic planning for regional academic services should start at departmental level whereby the planning information would subsequently give the university managers 'a sense of purpose to act' (Whittington, 2001, p.23). Bearing in mind findings in the previous three chapters, three features of a development plan are identified as follows:

1. **Regional profiling**: shared vision for regional services together with well defined activities, suitable resources utilisation and expected outcomes;

2. **Institutional profiling**: linkages between institutional expectations and academic understanding about academic services in the knowledge economy;

3. **Individual profiling**: the implementation of the plan is to be in harmony with existing university environment and academic cultures.

The above features are dealt with in the following three sections.

7.2 MAKING SENSE OF REGIONAL ACADEMIC SERVICES

As the first step of strategic thinking, university regionalisation should be well known as **a shared departmental vision**, as the vision leads to a mission. If there is an institutional regional agenda, the vision promoted at departmental level should be in accord with that agenda. In other cases, even if there is no existing institutional regional agenda, there should be one developed at departmental level.

By having the agenda, it must be borne in mind that this does not imply an additional obligation for academic staff to limit their services within the defined territory; rather, with a clear idea of this surrounding targeted service territory, these staff would conveniently address regional needs in respect of their areas of

expertise. In other words, the vision is assumed to help shape the ideas of academic staff concerning three aspects of the regional territory; those are :

1. **The targeted service territory**: this would help guide academic staff to regional needs as well as to potential service recipients.

2. **The territory of regional resources**: this would help clarify material and non-material assets existing within the region.

3. **The territory of co-operative partners**: this would help identify other regional organisations, public and private, regarded as potential partners who share regional interests and/or regional resources used for the organisational operations.

With regard to the above aspects, enabling locational factors would be emphasized; for instance, convenience of transportation and communications, access to material and non-material assets into the performance of academic work and inter-personal contacts with regional authorities, potential academic partners at other knowledge institutions and knowledge recipients.

7.2.1 STRATEGIC POSITIONING OF SERVICES

The employment of strategic ideas adapted from business management is believed to enhance the departmental operational effectiveness (Nelson, 2002; Sharma, 2004). In respect of the significance of the university regionalisation discussed above, the researcher proposed that the shared regional vision and mission would facilitate the building of 'strategic positioning' of an academic department.

As defined by Porter (2004, p.42), 'strategic positioning means performing different activities from rivals' or 'performing similar activities in different ways'. By applying the meaning to suit academic activities, the researcher proposed that a recognition of 'regional needs' as well as 'regional assets' would help academic departments to gain not only operational effectiveness of academic services but also their enhanced competitiveness known as a 'competitive advantage' of locational factors (OECD, 2007; Sujatanond, 2008). In other words, with strategic regional engagement, these departments would be acting beyond a typical 'generalized' and 'universal' knowledge facilitator in their knowledge region (Laredo, 2007). Figure 7.4 illustrates this idea:

FIGURE 7.4: Strategic Positioning of Academic Service
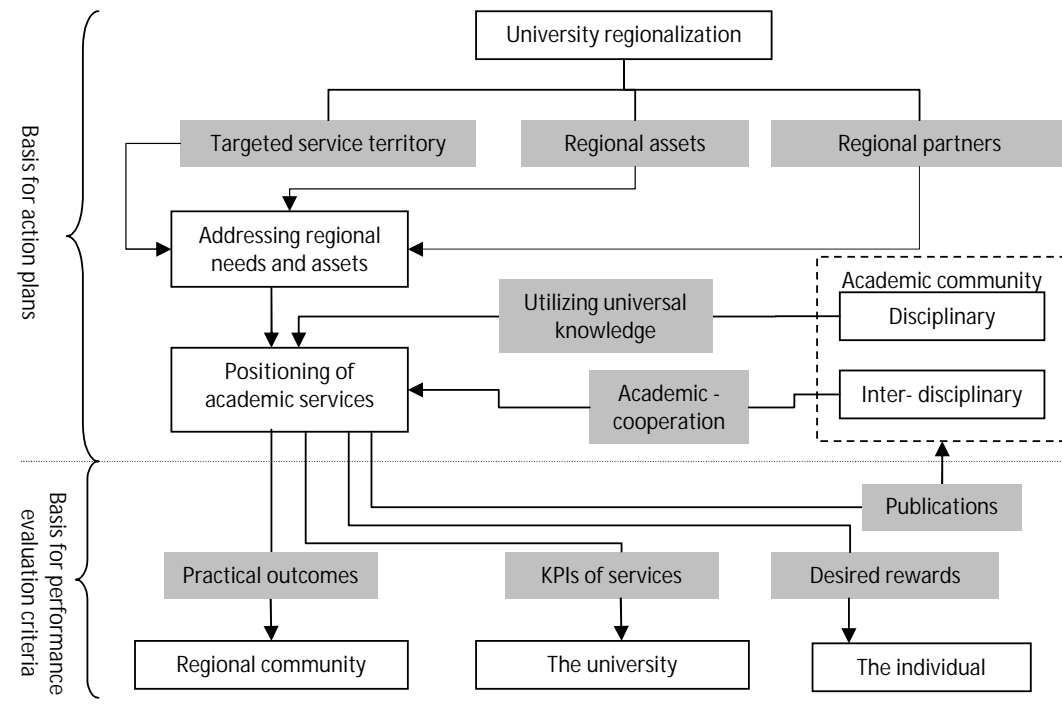
Source: developed by the author.

7.2.2 RESPONDING TO REGIONAL KNOWLEDGE NEEDS

As seen by the empirical data, academic services can facilitate either one-way or two-way flows of knowledge. They could also be either linear or non-linear (interactive) activities. Additionally, in respect of academic freedom, individual staff became involved with service activities reflecting their own choices and motivations.

The planning of regional services should therefore not specify patterns of academic involvement. Rather, it should only help shape the ideas of the staff about the delivery of systematic services. The purpose of so doing is to widen these staff perspectives, which Chapter 6 indicated as being one of the key factors leading to the performance of regional services being under-accounted.

Bearing in mind the research findings presented in Chapter 6, there are three aspects of the perspective requiring a re-conceptualisation:

1. **Innovation and knowledge transfer**
   To build the KE, innovation is not limited to S&T only, although S&T innovations are in the central focus of the national policy. Rather, the building of KE could be served by academics from diverse disciplinary

departments, including social sciences and health sciences. Where applicable, inter-disciplinary services should also be carried out.

2. **Regional innovations**

It should be borne in mind that innovations are 'new ideas' or 'new methods' provided in respect of existing assets within the defined region. These innovations should be developed with an objective to foster regional development.

3. **Thai wisdom and the knowledge region**

As clearly included as the goals for the current HE reform, '[academic service should lay] the foundation for long-term development for the purpose of creating innovations based on Thai wisdom' (OEC, 2003a, p.9). To promote the provision of academic services based on the Thai wisdom, regional Thai wisdom should be redefined, rather than being ranked as low in terms of intellectual value; this wisdom is to be regarded as the knowledge emerging from within the regional context, rather than as endogenous Thai traditional knowledge with less innovative development. In this sense, the innovative Thai wisdom can be not only 'existing knowledge' but also 'newly developed knowledge', both are developed within the region and worth preserving and distributing[61].

In summary, any outcomes of academic activities dealing either with 'regional needs' or using 'regional assets', material or non-material, could be seen as the performance of regional academic service. Having said that, however, the services could be delivered in diverse forms, leading to a difficulty in the systematic accounting of the work. To help minimize the under-accounting, detailed departmental thinking concerning 'the shared vision' and 'the goals' leading to the formulation of 'a plan' should be carried out (Nelson, 2002).

7.3   THINKING AT DEPARTMENTAL LEVEL

According to Whittington (2001), there are four schools of theories of strategy, namely 'classical theory', 'processual theory', 'evolutionary theory' and 'systemic theory'. By discussing the way in which strategies are developed, Macmillan and Mahen (2000) consider that the first two schools are deterministic, whereas the latter two are emergent (Table 7.1).

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[61]For an example of regional Thai wisdom, see a quotation from the interview with Participant C-5 given in Chapter 6 (p.206).

TABLE 7.1: Four Schools of Theories of Strategy

Classification	Flow of the Thinking	Schools
Deterministic strategy	Top-down	Classical theory
		Processual theory
Emergent strategy	Bottom-up	Evolutionary theory
		Systemic theory

Source: developed by the author after Macmillan and Mahen (2000).

Regarding classical and processual theories, organisational managers undertake 'a deliberate process of thinking' about outcomes of the planning. In contrast, according to the views of evolutionary and systemic theories, the managers are likely to 'have very limited ability to determine outcomes' (Macmillan and Mahen, 2000, pp.24–25). Considering this difference, the researcher therefore proposed that the perspectives of emergent theories are more suitable for public university organisations; she proposed that **strategic thinking should initially emerge from academic departments rather than from the management**.

The researcher's proposition was made with respect to the organisational structure of the Thai traditional universities comprised diverse faculties, within which are various academic departments. Also, as Chapter 6 showed, by making comparisons across departments, the universities had different values, cultures, perceptions of the advantages and disadvantages of academic service. Considering this issue, it is not likely that senior managers were able to determine their service outcomes in order to plan a strategy that suited the departmental operation.

Bearing in mind the two schools of emergent strategies, namely processual and systemic, the key difference between these two schools was that the former aims at a **single outcome** whereas the latter aims at **plural outcomes** (Jongbloed, 2004; Whittington, 2001). Implicit in this distinction, the latter considers the various politics, interests, resources and social groups of each department as part of the strategy development; accordingly, plural outcomes are normally expected (Whittington, 2001). In this regard, taking into account the complexity of academic communities, the researcher made recommendations following **the systemic perspective**. In this sense, it is assumed that (Whittington, 2001, p.27):

> '[universities] differ according to the social and economic systems in which they are embedded. . . . The internal contests of organisations involve not just the micro-politics of individuals in departments but the social groups, interests and resources of the surrounding context.'

To explain further, with respect to the difference in subject areas, academic managers at the top level hardly sensed the perspectives and capabilities of academic staff at the operational level of individual departments, except for those particular departments where they had previously worked for or with which they were especially familiar. Considering this point, in order to develop a strategic plan that is as practical as possible, **the initial strategic thinking therefore needs to emerge from the staff perspective**.

However, the plan is not to be a perfect form of 'emergent strategy' as each university management has some 'intentions' set for services performance (Mintzberg, 2004). In Thai universities, this was found in the form of the KPIs for services. To start development of the plan, linkages between the staff perspectives and the intentions of management are therefore vital during the process of strategic thinking.

According to empirical data, middle-level managers, departmental Heads and Faculty Deans, were expected to facilitate these linkages. By carrying out the thinking, the roles of these Heads and Deans should clearly be recognised. That is, all departmental Heads within the faculty should be able to provide the Dean with the required information in order that strategic planning can be formulated. Such a developed plan will later be presented by the Dean to the university senior management (Figure 7.5).

FIGURE 7.5: Initial Strategic Thinking
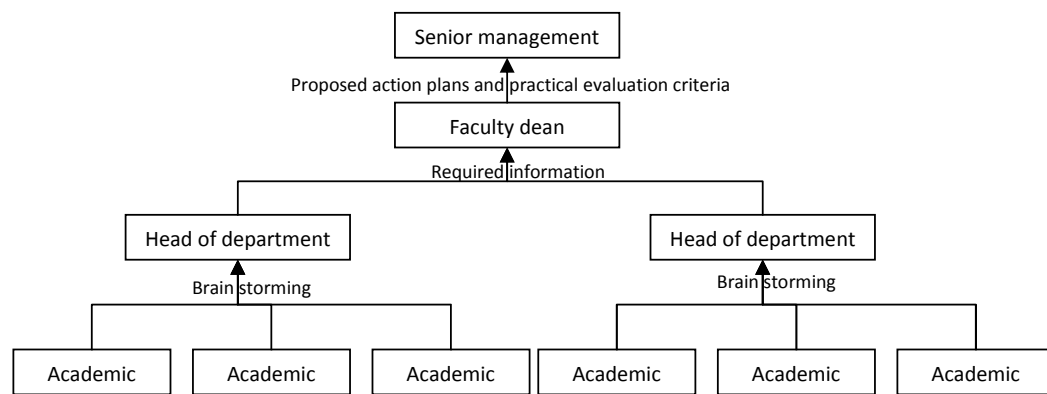
Source: developed by the author.

Based on research findings, the researcher proposed the required information comprising five elements, as outlined in Figure 7.6:

FIGURE 7.6: Departmental Conversation of Strategic Thinking of Services

Formalised conversation	Conversation structure	Required information
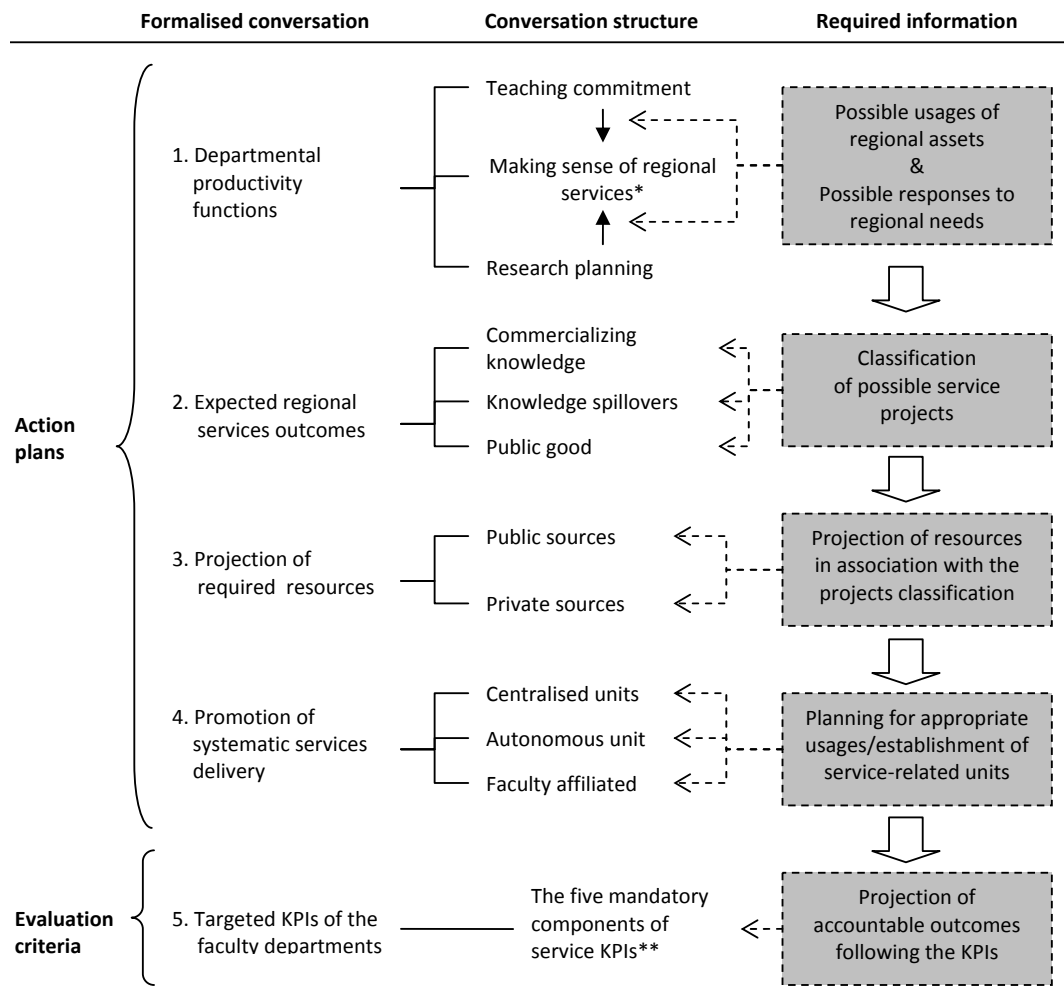
Note: *as discussed in the previous section; **see Table 5.1 in Chapter 5 (p.137).
Source: developed by the author.

Given the above outline, collegial conversations between the Heads and their departmental academic members are vital. The ways in which the conversations should be made are suggested as follows.

7.3.1 DEPARTMENTAL PRODUCTIVITY FUNCTIONS

As evidenced by empirical data, academic staff regarded teaching and research as their mainstream work, whereas service was only seen as a voluntary third stream. It is therefore suggested that the thinking gives priority to these two functions with an attempt to make regional services enhance these activities.

By considering teaching and research productivities as the basis for strategic planning of service development, strategic thinking should be undertaken once the departmental plan for teaching and research has been formed. That is, before

the thinking takes place, each of academic members should already have the detailed information of their teaching commitment. Also, they should have their plan for targeted research performance and publications.

To make the strategic planning of services harmonize with the normal practice of academic planning, the planning should be carried out annually. Once this has been done by faculty departments, the Dean would have the background information required for the formulation of annual **faculty targeted KPIs**, services included, to be presented to senior management. Notwithstanding this approach, in the case of long-term service projects (continuing longer than one academic year), revision of the project might also be undertaken.

At these thinking and planning stages, as suggested by Nelson (2002), middle-level managers should be aware of different individual capabilities and professional goals. With respect to individual differences, the discussions at these stages should be realistic, particularly in terms of the challenges faced by departmental members and advantages regarding the individual profiles of these members.

Based on findings presented in Chapter 6, Table 7.2 summarises these challenges and advantages by staff profiles:

TABLE 7.2: Challenges and Advantages of Service by Individual Profiles

Individual Profile	Profiling Detail	Key Challenges	Key Advantages
Qualification	Junior academic (Lecturer or Assistant Professor)	Academic recognition; connection building; promotional tension; Relative less academic work experience; low esteem for academic service task; career assurance	Being able to play a passive role
	Senior academic (Associate Professor or Full Professor)	Academic status maintenance	Academic recognition; connection building; relative high academic work experience; positive personal value on academic service work; relative less tension on career assurance
Administration	No administrative position	Misconception of expectation of academic service.	Being able to play a passive role
	Middle-level academic manager (at departmental or faculty level)	Time management; collegial management skills; academic status maintenance	Good connection with service work at operational level; high esteem on academic service work
	Senior academic manager (at university level)	Time management;low connection with service work at operational level; academic status maintenance	Policy making power; high esteem for academic service work
Academic Discipline	Health Sciences	Under-accounted academic service	Disciplinary relevance; high esteem for service work; low teaching workload; relatively high publication opportunity; additional source of income
	Science and Technology	Under-accounted service; values of Thai wisdom; investment cost of equipments	Disciplinary relevance; relatively high publication opportunity; additional source of income
	Social Sciences and Humanities	Under-accounted service; heavy teaching workload; relative low publication opportunity; sources of funding and inputs	Additional source of income

Source: developed by the author.

7.3.2   EXPECTED OUTCOMES

Considering academic capabilities, which are normally in accordance with individual qualifications, some academics may prefer research-related activities, and some may prefer teaching-related. However, some may lack the ability to weave the service agenda into either of their research or teaching.

Additionally, despite individual staff having their own areas of specific expertise, Heads of department should not leave excessive room for their peers to choose their own work directions. Rather, regional agenda should be brought into the academic planning conversation. In order to help academic members outline their service activities, The preferred forms of service outcome should therefore be addressed together with the incentives associated with their mainstream activities of teaching and research.

In order to carry out departmental brainstorming, academic members should discuss activities they are possibly capable of delivering with the primary targeted outcomes identified, chosen from the following forms[62]:

1. **Commercialising knowledge**: the person paying for knowledge gets a responsive knowledge service.

2. **Knowledge service as a public good**: what is provided becomes a public possession.

3. **Knowledge spillovers**: the individual who provides the knowledge service also gains the knowledge possession.

When some activities are likely to result in more than one form of outcome, the academic suggesting the activity must address one as the primary, whereas the other should only be regarded as secondary to avoid confusion. Also, the primary incentive must be addressed in accordance with the type of service. In the same way as for secondary expected outcomes, other additional incentives should only be regarded as secondary.

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[62]Clarifications of term and empirical evidences of each form were provided in Section 6.1 of the previous chapter (pp.171–182).

7.3.3 PROJECTION OF REQUIRED RESOURCES

As an attachment to the planning of expected outcomes, costs of all planned activities must also be projected. To do so, academic staff should clearly state the projected **operational costs** and **investment costs** of their proposed services activities. Also, potential sources of funding should be provided (Table 7.3).

TABLE 7.3: Projection of Required Resources

Type of knowledge	The knowledge possession	Preferred resource	Resources provider
Commercialising knowledge	The knowledge recipient	Private	The knowledge recipient
Public good	Public	Public	The university, government authorities, or private organisation with no specific private demand on the knowledge production.
Knowledge spillovers	The knowledge server	Public or private	The knowledge recipient, the university, government authorities or private organisations.

Source: developed by the author.

In accordance with the projected costs, guidelines for preferred provision of resources outlined in Table 7.3 above can be explained as follows:

1. **Commercialising knowledge**

   The service of commercialising knowledge should be funded by private sources. The term 'private' in this sense refers to 'private use' of the knowledge; sources of funds could be both private and public organisations potentially making a demand for responsive knowledge service that meets their private purposes.

2. **Public good**

   A public good should be funded by public sources. The term 'public' in this sense refers to 'public use' of the knowledge; sources of funds could be both public and private entities as long as the funds are granted with no specific private use of the knowledge.

3. **Knowledge spillover**

   Service activities resulting in a knowledge spillover may be provided to the knowledge recipients through academic publication, inter-personal

connections or the knowledge embedded in students[63]. Knowledge
spillovers can be funded by either private or public source. The key
consideration is the possession of the knowledge belonging to the
knowledge server, such as academic staff or participating students.

7.3.4 PROMOTION OF SYSTEMATIC SERVICES DELIVERY

According to Porter (2004), strategy requires constant discipline and clear
communication. Agreeing with this, there should be a shared understanding of
systematic service delivery with the university's full recognition. As evidenced by
the three studied universities, leading public universities in Thailand were likely
to develop institutional units functioning as educational and research units
attached to service objectives.

Together with the planning of service outcomes and the projection of required
resources, academic staff should indicate a preferred channel of service delivery.
The Head should persuade their academic peers to deliver all services with the
university's full recognition. That is, the Heads should communicate with their
peers about systematic channels of service delivery.

With respect to the designed organisational structure, as discussed in Chapter 5, it
is recommended that the departmental members plan to obtain the resources
required for their activities through services units developed throughout layers of
their organisation[64]. Also, given this organisational structure, there are four
modes[65] of connection by which academic staff could become involved in regional
services:

1. individual academic's personal connections;
2. individual academic's connection with the university service unit;
3. connection with the outside entity made on an institutional basis;
4. internal connection made across institutional service units.

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[63]See Section 6.1.2 of Chapter 6 (pp.176–178) for detailed discussion about forms of knowledge
spillover.

[64]See Section 5.2.1 of Chapter 5 (pp.138–143) for details about services units developed within the
three studied universities.

[65]Clarifications of term and empirical evidences of each form were provided in Section 5.2.2 of
Chapter 5 (pp.143–145).

7.3.5 TARGETED SERVICES KPIS

As discussed in Chapter 5, the employment of KPIs lacked standardised performance evaluation, which sometimes resulted in under-accounted service as some service work was not reported, although, in practice, the work was delivered. As the empirical evidenced showed, this problem led to the relatively minor influence of the KPIs on academic practice.

Bearing in mind the function of strategic plans, the influencing power of the KPIs is assumed to be enhanced as the plan is developed. To support this assumption, this is due to strategies cannot be developed without clarified criteria for performance evaluation (Macmillan and Mahen, 2000). To do so, the researcher proposed that departmental planning might apply the KPIs[66] as a guide.

As another issue to be considered, academic staff evidently viewed the KPIs as being of concern to the faculty and departmental leaders. As Chapter 6 presented, this view often resulted in academic staff lacking their involvement in the service mission of their faculties[67].

By having a plan, the above problem might be solved; the department is believed to lessen a gap between the perspectives of academic staff and middle-level managers. Also, rather than conceiving services as a kind of 'ad hoc' activity, where the work is to be delivered in response to demands made (Mintzberg, 1979), the function can be planned in a proactive manner following the processes this section has presented.

7.4 SENDING MESSAGES TO SENIOR MANAGEMENT

Given the developed plan consisting of the elements of information presented in the previous section, to send departmental messages to senior management is a further step. This step is associated with the purpose of having a departmental plan, as pointed out by Nelson (2002, p.98), that '[the plan] guides the Chair [the Head of department] in creating a dynamic department recognized by the university, faculty, students and surrounding community.'

In the preparation of messages, the Dean should be assisted by departmental Heads. This suggestion is reinforced by Cramer (2006, p.533), who suggests that

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[66]The five mandatory components of service activities were provided in Table 5.1 in Chapter 5 (p.137).

[67]See also Section 6.4.3 (p.204).

'[t]he department chair [Head], working in concert with the Dean and Provost/Vice-President for academic affairs, must provide the resources and clarity of vision to faculty [academic staff] in the department to facilitate scholarly activities to the greatest extent possible'.

Then, to send messages, the Dean of Faculty should function as not only the messenger but also the translator of the message; they are to turn the detailed strategy into demanding and convincing messages. Based on the five elements of the developed plan, the Dean should convey messages to the senior management negotiating issues as follows.

7.4.1 EXTERNAL LINKAGES

As the plan has been developed, several external knowledge stakeholders should, by this stage, have been clarified as targeted service recipients, regional partners, regional authorities, or targeted external sources of funding. With respect to this information, these stakeholders might be either individual or institutional entities.

While individual and small institutional entities (*i.e.* regional firms) could be dealt with by academic staff themselves or with the help of middle-level managers, large institutional entities (*e.g.* regional and national government authorities, national and international funding bodies, other public and private knowledge institutions) might require a connection built at institutional level. The Dean should therefore be able to convince the top management to support this level of connection.

To support the proposition above, Chapter 5 showed the case of University B that the top management of this university was appreciated by their middle-level managers assisting them with the information of potential linkages to be made with regional knowledge stakeholders[68]. The view of the management was also reinforced by this university having a very clear regional agenda and building a strong linkage with its region.

7.4.2 INTERNAL SUPPORT FOR INVESTMENT

Bearing in mind the three forms of knowledge service discussed earlier, not all the forms could be commercialised and generated satisfactory economic return. For those that lack a return on investment but would benefit the regional public in a

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[68]See Section 5.2.3.2 (pp.147–148) for details.

wider extent, the Dean should therefore be able to convince senior management to support the cost of investment relevant to the planned activities.

7.4.3 PRACTICAL PERFORMANCE EVALUATION

It must be borne in mind that different Faculties have their own advantages and disadvantages of performing service with respect to their disciplinary characters. The Dean should therefore be able to convince and negotiate with the management about practical performance evaluation that suits the Faculty's disciplinary characteristics.

For instance, it is difficult for social sciences and humanities staff to produce a large number of publications (codified knowledge, possibly being used as a knowledge spillover or commercialising knowledge) compared with S&T and health sciences staff. These staff might, instead, mainly provide more professional, hence less academic, commercialising services (*e.g.* consulting services) or a public good knowledge (*e.g.* an academic radio broadcasting, a public project aiming at the preservation of Thai traditional arts).

With respect to these differences, evaluation criteria for service performance, of both the Faculty and individual members of staff, should be planned using a shared understanding between the Dean and the top management.

7.5 MAKING AN ENABLING DEPARTMENT

Bearing in mind findings about the institutional environment at departmental level, Deans of Faculty and Heads of Department play different roles[69]. In one Faculty, the Dean was mainly responsible for policy making and administrative decisions whereas Heads of department dealt with the work of individual academics following the Faculty policy.

It is therefore suggested that Heads of Department are essential in making departmental cultures an enabling factor of regional service performance that simultaneously serves the university management expectations. In this regard, four features of the departmental culture are to be promoted: (1) values of regional academic service, (2) making use of academic freedom, (3) the departmental mentoring system, and (4) balancing traditional and entrepreneurial activities. Explanations of these features are provided in this section.

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[69]See also Section 5.4.2 of Chapter 5 (p.165).

7.5.1 VALUES OF REGIONAL ACADEMIC SERVICES

For strategic planning, in addition to a shared 'vision' (see, for instance, Nelson, 2002) and 'mission' (see, for instance, Porter, 2004), shared 'value' is another essential component of strategic operations (Campbell and Yeung, 2004). According to Campbell and Yeung (2004, p.275), 'values provide a rationale for behaviour that is just as strong as strategy'.

However, unlike the first two strategic components, values and beliefs could hardly be measured as they are 'moral principles' lying behind the organisational culture (Porter, 2004, p.275). It is therefore a managerial challenge to promote departmental values of regional academic service.

Considering values of academic service, Chapter 6 presented two sources of values that promote academic involvement in regional service; one was **personal values** and the other was **peer pressure**. It also argued that senior staff were likely to be influenced by personal values whereas peer pressures were potentially to work on junior ones.

With regard to the above findings, it is therefore recommended that Heads of Department be assisted by the rationale of 'academic freedom' to promote 'personal values' for senior staff. Then, for junior members, these managers are recommended to help foster 'peer pressures' of senior staff on their junior colleagues.

7.5.2 BALANCING TRADITIONAL AND ENTREPRENEURIAL ACTIVITIES

As introduced in Chapter 2, traditional universities in Thailand are being encouraged to become autonomous universities. These universities would be more flexible with their internal personnel and financial management. There is therefore more concern, compared with previously, on entrepreneurial operations regarding the investment costs and the returns on investment of academic activities (Virasa, 2008).

By proposing the development of departmental strategic planning for services, the researcher agreed with Renault (2006, p.229) that '[d]epartmental norms could support traditional activities while university-wide policies and economic incentives may encourage more entrepreneurial activity'; as this chapter discussed previously, linkages between academic staff at the operational level, whose work

was surrounded by the departmental norms, and the management, whose responsibility was to oversee the university-wide policies, was claimed as one of the key benefits of having such plan.

To make use of the plan developed in order to balance traditional and entrepreneurial activities, it is essential that academic departments clarify their service goals, both public and private, bearing in mind that strategic plans are involved with the development of 'goals' and 'strategies'.

To explain further, various information gained during the strategic thinking, as presented previously, is to be used to classify expected service outcomes as either traditional serving 'social goals' or entrepreneurial activities serving the 'commercial goals' of the department (Heracleous, 2003). By so doing, the balance between these goals should be carried out in association with the ONESQA's KPIs for service delivery.

7.5.3   MAKING USE OF ACADEMIC FREEDOM

Recalling the development of strategic planning in public universities, the employment of strategic ideas is adapted from business management (Nelson, 2002). However, unlike the business organisation, Heracleous (2003) argues that public universities seeking for competitiveness and business-like efficiency of their operations need to balance social and commercial rationales. By discussing these two rationales, De la Fuente (2002) and the ONEC (2002) find that academic freedom is the key factor influencing the balance.

To explain further, if individual academic members are to propose their own choice of regional service activities based on their own personal goals, realistic academic capabilities and preferred channels of systematic service delivery are necessary. By doing so, these individuals are revealing their 'goals', 'capability beliefs' and 'context beliefs', which Colbeck and Wharton-Michael (2006b, p.19) indicate as the three components of motivation that promote academic involvement in public scholarship.

With the information above, the departmental leader would be able to assess each member's values and motivations for providing regional service. For those revealing few or less relevant personal values, peer pressure is to be applied through a systematic mentoring system, which is discussed next.

7.5.4   THE DEPARTMENTAL MENTORING SYSTEM

With respect to the proposition that middle-level academic managers are playing the essential roles of 'putting things together', it must be borne in mind that the values are moral principles, not to be promoted using the institutional administrative system. Rather, human activity, or inter-personal connection, is a vital tool (Heracleous, 2003). This assumption was also reinforced by the view of interviewed managers, as discussed in Chapter 5, that emphasised the significance of collegiality for the management of academic staff[70].

Recommended as an effective tool, a departmental mentoring system is to be adopted. This recommendation agrees with Macfarlane (2007, p.265) who points out that, for academic staff, to participate in the mentoring system is regarded as a 'collegial service', which is a part of their academic citizenship[71]. In order to develop such a system, the middle-level academic managers should be able to classify their colleagues by professional goals, areas of interest and academic capabilities.

Then, by letting departmental members reveal their professional goals while participating in the brainstorming of departmental strategic planning, these Heads should gain the information needed in order to classify their staff. Consequently, once the plan is developed, these managers should try to match active senior staff to those junior staff with similar expertise backgrounds.

7.6   CONCLUSION

The findings of this research, as presented in the previous three chapters, formed a substantive theory used to explain how academic staff in traditional public universities delivered their service to the university's region. The theory development took into account regional, institutional and individual profiling of these staff. With regard to methodological discussions made in Chapter 3, the developed theory was claimed to have not only an exemplifying quality but also an explanatory function.

Bearing in mind the developed theory, this chapter proposed a strategic thinking, which could lead to the development of strategic planning at departmental level in order that service performance could be enhanced. This proposition made is

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[70]See Section 5.3.4 (pp.161–162) for details.

[71]According to Macfarlane (2007), there are five communities that academics serve: (1) students, (2) colleagues, (3) their institution, (4) their discipline and (5) the public.

regarded as a 'model' for systematic work built after the 'theory' developed (Burden and Roodt, 2007). A summary of theoretical implications underpinning the model is given in Table 7.4 (next page).

The next chapter will conclude this research.

TABLE 7.4: Developed Hypotheses and the Model Development — Services Strategic Thinking

Investigation proposition	Hypotheses of the Developed Theory	Component of the Developed Model	Purposes of the Development
Regional profiling	H-REG-1: The **regional proximity** hosts **regional needs** and **regional assets** used as inputs to **regional services**.	Making sense of regional academic services.	To help promote a shared vision about significance of the surrounding region for academic work.
Institutional profiling	H-INS-1: The **institutional expectation** is reflected by the **organisational structure** and the **academic management** of the university. H-INS-2: The **organisational structure** and the **academic management** serve **systematic performance and delivery** of regional service.	Strategic thinking at departmental level. Sending messages to senior management.	To make use of existing designate structure of the university organisation and academic management for the promotion of systematic academic services using systemic plans and practical evaluation criteria. To create linkages of understanding between the university management and academic staff at operational level.
Individual profiling	H-IND-1: Despite the institutional organisation, academic staff **do not fully use the designated system** for their services. H-IND-2: The **underused system** is caused by **under-accounted** and **undermined** services. H-IND-3:The **under-accounted services** happen at academic departments formed following the ordinary disciplinary fashion of academic community.	Making an enabling department.	To minimize as much as possible under-accounted and undermined academic services.

Note: H = Hypothesis, REG = regional profile, IND = individual profile, INS = institutional profile, KE = knowledge economy.
Source: developed by the author after developed theoretical codes presented in Chapters 4, 5, and 6.

Chapter 8

CONCLUSIONS

> '[T]hesis means an integrated argument that can stand up to critique.
> Every thesis makes a proposition and every proposition has to take
> into account a range of views, including opposite views.' (Murray,
> 2002, p.107)

8.0   INTRODUCTION

To revisit the 'integrated argument' of this thesis, this final chapter summarises
how the research was carried out and resulted in all the research questions being
answered. By doing so, it also presents what the researcher learnt regarding
research underpinnings, methodological discussions, the empirical investigation
and research outcomes. Also, limitations of the investigation and of the outcomes
are dealt with.

8.1   SUMMARY OF THE THESIS

As summarised in Table 8.1 (next page), Chapter 1 presented the research
motivation. That is, based upon government policies on Thai HE reform initiated
in 1999, academic services are regarded as an essential part of academic work,
contributing to the building of a KE in Thai communities. With respect to this
foundation, the researcher chose to make an inquiry into the role of individual
academics delivering their services at regional level.

Then, an initial review of literature, presented in Chapter 2, dealt with the local
knowledge of Thai traditional public universities and the fundamental knowledge
of academic services in knowledge economies.

TABLE 8.1: Investigation Processes

Processes	Investigatory activities	Key learning	Presentation
Identifying areas of problem	Literature review	The concept of the knowledge economy (KE) has come to shape activities in Thai public universities. These universities are required to be more proactive in services in order to make a reality of the knowledge economy in Thailand.	Chapter 1 - Introduction
Gaining local and focal knowledge about the problem	Literature review	The building of KE is the matter of innovation and knowledge transfer. Public commitment of Thai universities and rationale behind the investigation. Ideas and debates about public universities and their academic members acting as the knowledge facilitator in the system.	Chapter 2 - Literature Review
Discussing the research methodology and investigating the empirical setting	Literature review, philosophical discussion and research fieldwork	Underpinnings of the methodological designs. The multi-site case study empirical setting. The grounded theory methodology.	Chapter 3 - Research methodology
Presentation of research outcomes	Grounded theory data analysis and development of substantive theory	The way in which public universities regionalise their institution. The institutional organisation of relevance to the performance of academic services to region. The underpinnings of individual academic performance and delivery of regional services.	Chapter 4 - Regional Profiling Chapter 5 - Institutional Profiling Chapter 6 - Individual Profiling
Discussion of the outcomes	Building a model upon the outcomes.	Recommending the way in which systematic regional services could be enhanced.	Chapter 7 - Recommendations
Summary of the research	Revisiting and reflecting the above processes	Summary of answers to the research questions. Contributions the investigation makes to the knowledge. Limitations of the investigation. Implications of findings for academic activities in a wider extent than the investigation setting.	Chapter 8 - Conclusion

Source: developed by the author.

After the initial review of literature, Chapter 3 presented philosophical and methodological discussions on how the investigation was carried out. The discussions led to the conduct of a multi-site case study carried out in three selected Thai traditional LAUs, anonymously named University A, University B and University C.

A grounded theory approach was employed as the research method with semi-structured interviews being the method of primary data generation and collection. In addition, a documentary analysis of non-professional literature relevant to the case investigation was utilised as the secondary source of research data. By using grounded theory, the researcher eventually developed a substantive theory explaining the delivery of academic service within the overall range of academic work.

As a result of the investigation, a series of findings comprising three parts of empirical evidence and grounding the developed substantive theory was presented. Figure 8.1 outlines these findings:

FIGURE 8.1: Outline of Research Findings
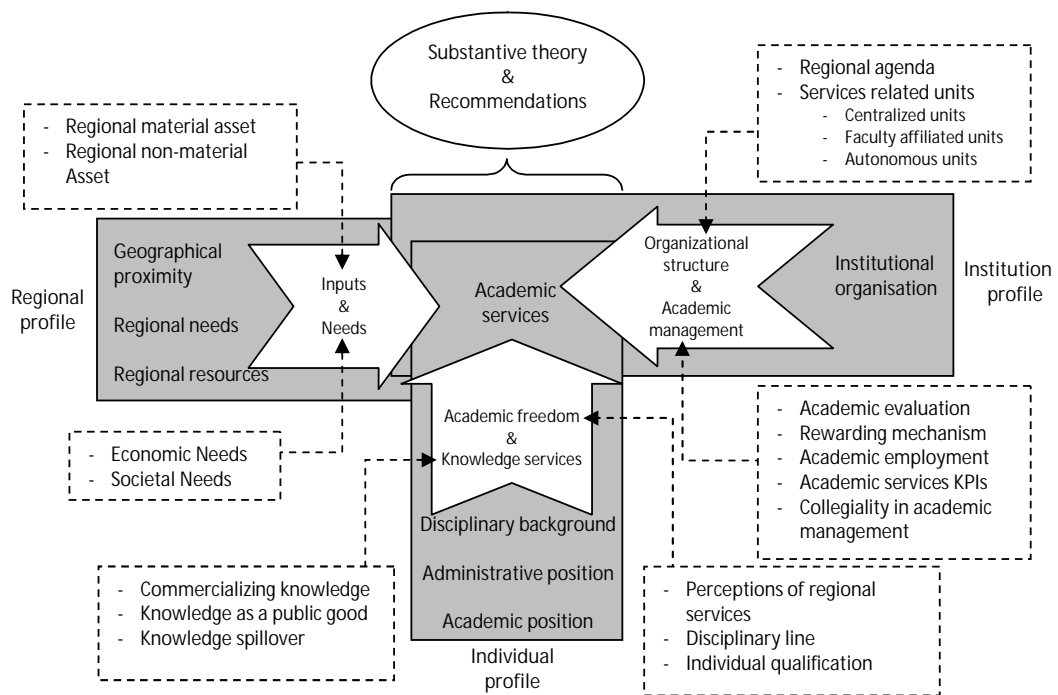
Source: developed by the author.

The presentation of the findings was assigned in three chapters. Chapter 4 presented the ideas of individual staff about university regionalisation. Also, in the context of these staff making sense of their services to the region, the

significance of social and economic characteristics existing within the regional geographic proximity was presented.

Then, Chapter 5 illustrates the institutional profiling mindful that the three studied universities were traditional public universities attempting to become autonomous research-oriented institutions. Several issues regarding institutional structures and academic management affecting systematic regional services within the university were presented.

Finally, Chapter 6 dealt with individual profiling of academic staff concerning their roles involving with services to the region; several issues rarely presented in existing literature were revealed.

Accordingly, based on the findings series presented, Chapter 7 provided recommendations on the way in which systematic services could be enhanced; a framework for strategic thinking at departmental level was proposed.

8.2 SUMMARY OF EMPIRICAL EVIDENCES

After the investigation was completed, the primary research question was answered as in the following table:

TABLE 8.2: Answer to the Primary Research Question

Question:
How are academic services at regional level delivered by Thai academics?
Answer:
There are many different forms of academic service delivered at regional level. These services were performed either in response to regional needs or using resources existing within the regional proximity. Evidenced by the organisational structure and academic management, the three studied universities attempted to promote the provision of systematic services carried out within their institutions. Despite this institutional organisation, not all services were systematically delivered due to services performance being misconceived and under-accounted. This also reflected the underused designated system.

Source: developed by the author.

Prior to the primary question being answered, other research questions, which were structured in accordance with the three case study propositions, must be answered. This section summarises answers to these questions together with the summary of their underpinning empirical findings.

8.2.1 REGIONAL PROFILING

As the scope of investigation looked at services at regional level, it was therefore vital first of all to clarify how academic staff made sense of their region. Therefore, the first set of sub-questions was developed (Table 8.3).

TABLE 8.3: Sub-Questions Concerning the Regional Profiling Proposition

Question 1:   How do academic staff make sense of the university's region?   **Question 2**:   What geographical areas are conceived by academic staff as their university's regional territory?

Source: developed by the author.

Not surprisingly, academics from the same university appeared to have similar ideas about university regionalisation. Academics from the three studied universities conceived their regions as follows:

- University A academics appeared to have the least clarity of regional identity, compared with the other two studied universities. However, despite there being no clear regional awareness, these academics took advantage of their location in the Core of the nation for the delivery of their services involved with national and international interests.

- Unlike academics from University A, those from University B clearly claimed the South of Thailand as their region.

- University C academics perceived the territory of their region as the Greater Mekong Subregion (GMS) in which the North of Thailand is geographically centred.

Notwithstanding that the size of geographical proximity was found to vary from one university to the other, the proximity of each university was similarly significant to academic services as it hosted not only regional needs but also regional resources specific to the place. Accordingly, any academic activities, either dealing with these needs or using the resources, material and non-material, as inputs to the activity, would result in regional services. This is due to the knowledge involved with the activity concerned the regional context.

8.2.2 INSTITUTIONAL PROFILING

To examine university institutional environments that shape service activities, the second set of sub-questions was developed as following:

TABLE 8.4: Sub-Questions Concerning the Institutional Profiling Proposition

Question 1:   How are public university organisations organised to serve academic staff delivering academic service?   **Question 2**:   What institutional factors do affect academic performance of regional service?   **Question 3**:   How do these factors affect the performance of individual staff?

Source: developed by the author.

Service missions at the three universities were shaped by the KPIs of service. The indicators were to be reviewed by the ONESQA. These universities were expected to serve a diverse range of knowledge transfer activities, outlined by the five compulsory components of the KPIs.

Institutional targeted service territories were found to be significantly shaped by the university's regional agenda. However, empirical evidence showed that not all universities have a clear recognition; among the three universities studied, only University B and University C did. As there was not a clear regional agenda at University A, this university's targeted territory was also not clear.

Despite there being formal regional agenda found in only two of the three universities studied, from the institutional perspective, all of the three universities attempted to promote a systematic service performance attached to their mainstream teaching-learning and research activities. This was evidenced by their institutional organisation, which comprises the organisational structure and the academic management (Table 8.5).

TABLE 8.5: Institutional Organisation of Systematic Regional Services

Level	Organisational Structure	Academic Management
Institution	Institutional expectations Concern to regional agenda Institutional KPIs of services Service-related units	Academic employment policy Rewarding mechanism
Academic department	Disciplinary lines Four modes[*] of service communication channels	Academic freedom Academic culture Traditional values of services Academic evaluation Collegial management

Note: [*]See details in Section 5.2.2 of Chapter 5 (p.143).
Source: developed by the author.

The institutional organisation was founded to be in accordance with the expectation that academic services are systematically performed with the university's full recognition. In order that this expectation is addressed, academic management at departmental level is the key factor. With respect to the academic heartland and the organisation of academics with similar areas of expertise working for the same department, challenges of systematic regional services were also identified.

8.2.3   INDIVIDUAL PROFILING

As the final proposition, the third set of sub-questions was developed to examine the service performance of individual academics (Table 8.6).

TABLE 8.6: Sub-Questions Concerning the Individual Profiling Proposition

Question 1:   How do academic staff make sense of their services delivered to the region?   **Question 2**:   What services are delivered?   **Question 3**:   How do they deliver these services?   **Question 4**:   How can systematic delivery be achieved given the range of individual services performed?   **Question 5**:   What factors influence the delivery of services by individual academic staff?

Source: developed by the author.

Empirical data showed that the performance of services was often undermined and under-accounted. Nonetheless, by applying the notion of the KE, activities delivering knowledge services (both accounted and under-accounted as academic services) could be classified into three categories: (1) commercialising knowledge, (2) knowledge as a public good, and (3) knowledge spillover.

Concerning the difference in academic backgrounds, staff from the discipline lines of S&T and Health Sciences appeared to have more opportunity to be involved in service than those of Social Sciences and Humanities. Several underpinning reasons for this difference included: (1) different academic resources, (2) different teaching workloads, and (3) different perspectives towards the academic evaluation system.

In terms of personal qualifications, academics with senior status, namely Associate Professors and Full Professors, tended to be approached more often as their expertise was required by stakeholders within their regions. Also, with experience, these academics were likely to be able to weave service into their mainstream teaching and research more effectively. This resulted in a more productive use of time and resources invested in their performance, leading to a positive impact on academic evaluation.

In practice, however, not all of the work was systematically reported as 'academic service' performance. As mentioned previously, there was often the case that services were undermined and some were under-accounted, despite individuals, both senior and junior staff, delivering their services.

Bearing in mind existing designated systems discussed in terms of institutional profiling, four key issues with respect to the above problems were identified concerning the linkages between institutional and individual perspectives, namely: (1) poor internal connections across the university organisational structure that served services activities; (2) some individual misconceptions about services in the KE context; (3) the lack of shared vision regarding services at regional level; and (4) the undermined service of Thai wisdom. These problems reflected the designated systems being underused.

8.3 LIMITATIONS

Referring to arguments made in qualitative studies, Partington (2002b, p.137) finds that 'every qualitative researcher tends to develop their own individual approach'. Agreeing with this, the researcher's own approach was confirmed by the design of case propositions and the constructivist interpretation used for the building of substantive theory. With this in mind, this thesis is the researcher's 'integrated argument' concerning the inquiry made into the service performance of the academic staff under the investigation; it therefore needs to 'show', 'suggest', and 'make reasonable and reasoned interpretations' of the findings concerning how it 'fits' in the debate that the research findings represents a challenge for the field (Murray, 2002, p.107). All the previous chapters have attempted to meet this requirement.

However, there are some limitations to be borne in mind concerning the chosen approach, which this section is going to discuss. Notwithstanding some limitations, it must be borne in mind that the subjective meaning presented as the finding of this research was constructed from the chosen situation of the case

study; the core value of this research is therefore in the 'explorations into situated knowledge', which are 'located within particular communities at particular times and used indexically to represent their condition' (Gergen and Gergen, 2003, p.587). In the light of this comment, to clarify the research limitations does not devalue the accountability and reliability of its findings and their implications in the field; rather, it helps to illuminate optimum ways to make sense of these findings.

8.3.1 SMALL SAMPLES OF INTERVIEW PARTICIPANTS

With respect to the purpose of study, participating academics were sampled purposively to ensure a wide range of academics with diverse individual profiles; they were not intended to be representative of the academic population. The limitation of this approach means that it is not guaranteed that the evidence of academic behaviours may be repeated; only a possibility could be claimed (Denzin and Lincoln, 2008).

Notwithstanding this reservation, the developed theory and corresponding hypotheses, grounded in the preoccupied university type, could be used as 'a conceptual framework' for aiding an understanding of academic work within similar universities with a comparable institutional environment to those studied (Glaser, 1992). In this sense, this framework is the main contribution this research makes to wider knowledge.

Implicit in this contribution, in order to make sense of the framework, any possible erroneous understandings concerning the objective existence of the studied subjects and situation is not to invalidate its logical value. As Crouch and McKenzie (2006, p.489) assert:

> 'We [social researchers] may indeed be in error in some or all of what we conceptualise and put forward. However, the possibility of erroneous conclusions is logically independent from the objective existence of the state of affairs under investigation, and does not in principle negate any knowledge we may obtain of them.'

8.3.2 THE ANALYSIS OF *Verbatim* TRANSCRIPTS

In order to analyse research data provided by Thai participants using their own terms, all interviews were transcribed *verbatim* in Thai. By doing so, the researcher was aware that the language barrier could be argued as lessening the transparency

and credibility of the data analysis processes. To explain further, notwithstanding that the coding processes were claimed to help eliminate the language barrier in the theory building (Patton, 1982), it is impossible for those who do not understand Thai to check the developed theory against the Thai language empirical data in which the theory is grounded. Nevertheless, there was concern that each code was developed upon empirical incidents sharing the same underpinning conception (Currall and Towler, 2003), or the code name, which were in English.

Bearing in mind another concern about the language barrier, there were parts of interviews being translated and presented to support the presentation of research findings. By employing a translation for qualitative research data, Temple and Young (2004, p.163) regard the translation as providing both methodological and epistemological challenges and suggest that it is vital to clarify 'whether and how translation within the research process potentially introduces bias and how to ensure agreement on the translation of source data'.

For this research, there were methodological discussions about the chosen constructivist epistemological stance[72]. As a result of these discussions, it was clearly stated that the researcher's subjectivity and bias were inevitably included in the interpretation of the studied academic behaviours. Implicit in this, the translation, which the researcher did it herself, was also a part of the GT data analysis. In other words, the analysis of the Thai transcript and the translation of certain evidence are both regarded as 'the second order conception' of the theory construction (Miles and Huberman, 1994, p.9) (Figure 8.2).

FIGURE 8.2: Construction of Constructivist Grounded Theory
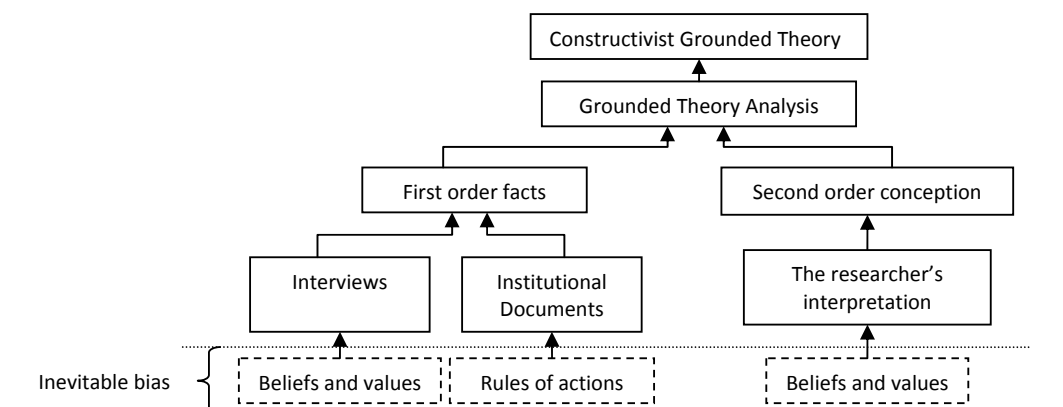
Source: copied from Figure 3.10 in Chapter 3 (p.96).

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[72]The discussions were provided in Section 3.2.3.1 of Chapter 3 (pp.75–77).

8.3.3 A RESEARCHER BIAS

Being no different from other qualitative research in general, this research is inevitably criticized regarding possible researcher bias, which may lower inter-researcher reliability (Kincheloe and McLaren, 2000; Lansisalmi *et al.*, 2004). Despite the criticism, however, hypothesis development and a thorough procedure of the GT coding were claimed to compensate for this criticized weakness. Having said that, it is argued that the research reliability may be tested through the test of developed hypotheses proposed as a higher level of abstraction explaining the research setting.

To explain further, by testing the hypotheses, the test is not specific to any specific setting or researcher; one may test the theory using other settings. For any setting comparable with the investigated case setting, it is likely that the test results will be positive regardless of the different researchers carrying out the test.

In the light of the hypotheses testing, these hypotheses are generated to explain the empirical evidences of **services delivered** within the given investigative boundary; they do not form 'a coherent theory' about **the case bounded situation** (Lansisalmi *et al.*, 2004, p.249). The theory is therefore claimed to have an explanatory power in other comparative settings concerning that the core linkages of it hypothesis primarily concerns the delivery of **academic services** performed by academic members of staff, notwithstanding various aspects of the case components forming the bounded situation under the investigation[73].

8.3.4 SUBJECT COMPARISONS ACROSS SERVICE UNITS

As presented in Chapter 5, there were diverse service units developed within all the three studied universities[74]. Recalling the formation of these units within the university's organisational structure, they can be divided into three groups: (1) centralised units led by the university senior managers, (2) faculty affiliated units, and (3) autonomous units affiliated to the university. Implicit in this formation, there is a difference in terms of the subject areas of these units; the finding initially suggested that subject comparisons might be carried out across the diverse service units.

Subject comparisons did emerge as part of the GT analysis. However, this aspect of the development of the substantive theory was only involved with the

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[73]See also the GT coding structure given in Appendix E.
[74]To be specific, see Section 5.2.1 (pp.138–143).

investigative proposition of 'individual profiling'[75], not that of 'institutional profiling'. In other words, with respect to the clarification of the issues for the investigation[76] and the case boundedness indicating individual academics as the units of analysis[77], subject comparisons of service units were beyond the investigative boundary.

To explain further, the formation of service units reflected the designated system for services delivered with the university's full recognition[78]; various units developed across the disciplines evidenced the institution's intention to promote systematic services carried out within all the disciplinary areas conducted within the university. In order to pursue subject comparisons, however, activities undertaken within these units were to be further examined. This is due to activities of 'individual staff', not individual service units, were in the study's central focus. For this reason, subject comparisons were rather dealt with in Chapter 6 that primarily looked into the individual profiling.

Nonetheless, the findings and discussions provided in Chapter 6 could possibly be useful for the resource allocation at the institutional level, taking into consideration the service characteristics of staff from different subject areas.

8.3.5 UNIVERSITY ORGANISATIONAL TRANSFORMATION

By the time this thesis was about to be finished, in February 2010, University C had completed its institutional transition from a civil servant organisation to an autonomous university whereas the other two were still in their final process. Although institutional profiling was essential for this study as it was one of the three study propositions, the completion of their transition is believed not to significantly affect the research findings.

To explain further, most management viewpoints obtained in the research favoured university autonomy, which appeared to significantly influence the university's mission, organisational structure and academic management, all of which were reported as the key features that shaped academic activities related to service, directly and indirectly.

The explanation power and the exemplifying quality of the theory is therefore believed to remain as long as there are no substantial changes in the higher

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[75] As presented in Section 6.2 of Chapter 6 (pp.182–194).
[76] See also Section 2.6 of Chapter 2 (pp.60–61).
[77] See also Section 3.1.4 of Chapter 3 (pp.69–70).
[78] To be specific, see Section 5.4.1 (pp.163–165).

policy-making level, *i.e.* national level, leading these universities to further reshape their organisation. By the same token, this implies that the remaining implications of findings are relevant for other comparable institutional settings.

8.4 POSITIONING THE RESEARCH IN THE LITERATURE

A wide range of professional literature was reviewed during the GT analysis to underpin comparisons made between emerging concepts grounded in the research data and those already in place in existing literature.

Some studies included in the literature review are conducted in Thailand context, and are therefore relevant as the setting of this study. Undertaken as part of the constant comparisons strategy of the GT data analysis, Figure 8.3 illustrates the key areas of literature search in the Thailand context and the positioning of this research in the literature:

FIGURE 8.3: Professional Literature in the Thailand Context
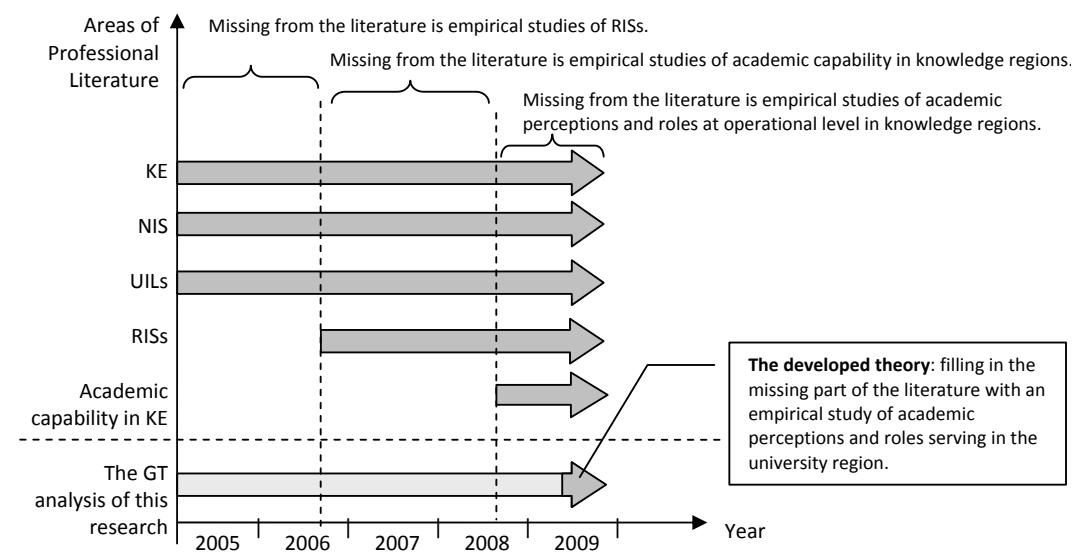
Note: KE = knowledge economy, GT = grounded theory, NIS = national innovation systems, RISs = regional innovation systems, UILs = university-industry linkages.
Source: developed by the author.

As seen in the above figure, when this research was first started in October 2005, not many empirical studies about academic services in NIS, RISs and UILs in the KE had been produced in the Thailand context. Furthermore, none of those already in place scrutinized academic roles at operational level; they all looked at the roles of universities as a whole (*e.g.* Bhangananda, 2003; Chulasai, 2003; Intarakumnerd *et al.*, 2002; Makishima, 2003; Temsiripoj, 2003).

However, throughout the research processes, October 2005 – February 2010, there was an increase in empirical studies in the above areas, including those about NIS (*e.g.* NESDB and World Bank, 2008; Webster, 2006), UILs (*e.g.* Brimble and Doner, 2007; Liefner and Schiller, 2008; Schiller, 2006a; Schiller and Liefner, 2007) and RISs (Schiller, 2006b). These studies include in their discussions academic roles and their capability for facilitating the prosperity of the building of a KE in Thailand using these systems.

This study helped to fill the missing part within this literature; it has provided an in-depth understanding of regional services from academic perceptions together with linkages to policy-making and the institutional point of view already in place.

In addition to the literature produced in the Thailand context, a wide range of professional literature drawn from other systems was also reviewed and discussed in parallel with other steps of the research. By considering this approach, despite Thailand being the setting, it should be noted that eventual research outcomes makes a contribution to knowledge in the field as a whole, including settings outside Thailand.

8.5 SUGGESTIONS FOR FUTURE STUDIES

As mentioned previously, the theory developed as the eventual outcome of this research might be utilised as a conceptual framework for future studies concerning the roles of individual academics delivering their service to a region. Also, based on the research findings, strategic thinking in the form of a strategic framework, assumed to lead to the development of strategic planning within public universities, was proposed in Chapter 7.

However, the implementation of the thinking requires further empirical investigation of individual academic departments, which is beyond the scope of this study. In the light of this, the recommendations made in Chapter 7 need further studies to prove their practical implication. In order to turn **the proposed thinking** into **a practical planning**, it is recommended that further studies be conducted in either the three universities or in other universities with comparable organisational environments and academic structures (Figure 8.4).

FIGURE 8.4: Suggestion for Future Studies
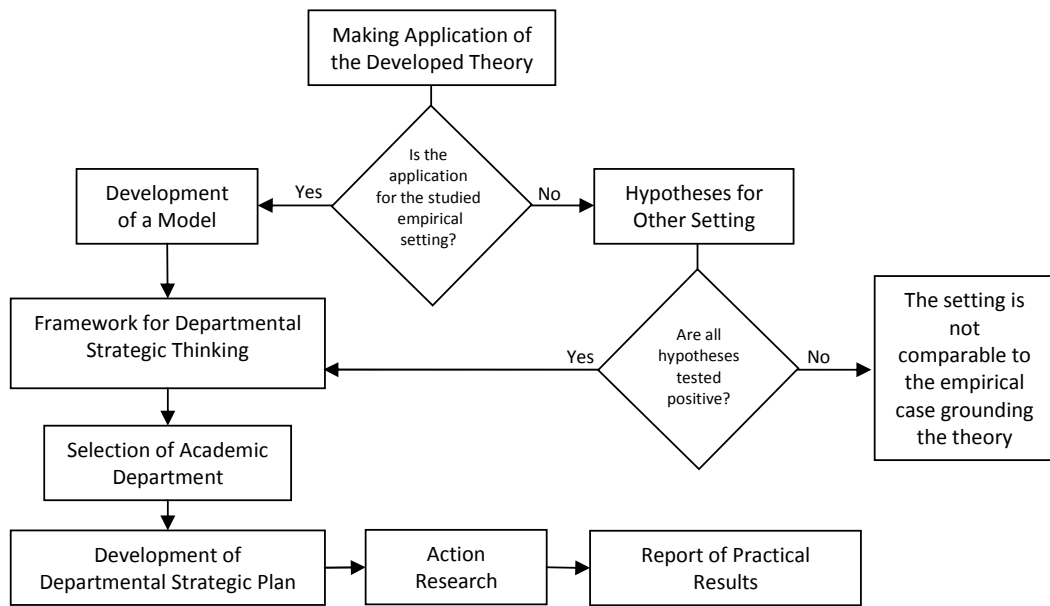
Source: developed by the author, consistent with the explanatory function of the developed theory illustrated in Figure 3.20 in Chapter 3 (p.113).

Action research is preferable for further studies. To do so, departmental strategic plans developed following the proposed framework should be implemented as an 'intervention' of academic operation at departmental level, from which the researcher may observe practical results (Eden and Huxham, 2002, p.254). With regard to theoretical concepts attached to the model, the development of strategic planning is believed to result in more accountable, systematic, and proactive performance of services.

8.6 FINAL REMARKS

The building of a knowledge economy in any community should be 'custom-made'; no presumptive concepts could be fully implemented across different economic and societal contexts without being supported by an in-depth understanding of the contextual conditions.

In the case of Thailand, as academic staff are actors in the knowledge economy, an urgent need is not only an increase in the research capability of these staff, as was emphasized by existing literature, but also a reconceptualisation of academic understanding towards their roles in the region.

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The presentation of this thesis leads to reconsideration of how a knowledge society may emerge in developing systems, such as Thailand, and about the priorities of these developing systems in building knowledge regions. New light is shed on the formation and delivery of regional missions in higher education, and on organisational structures, career development, academic cultures and work experiences of academic staff.

INSTITUTIONAL AND GOVERNMENT DOCUMENTS

TABLE A.1: Institutional and Government Documents

Organisation	Date	Documents	Summary of Contents
Asian Development Bank (ADB)	2006	Southeast Asia	The social and economic review of 10 countries of Southeast Asia region, including: Brunei Darussalam, Cambodia, Indonesia, Lao Peoples Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Viet Nam. The review is prepared by the Southeast Asia Department, the merged department of former ADB's Mekong and Southeast Asia Departments.
Asian Development Bank (ADB)	2007	Midterm Review of the Greater Mekong Subregion Strategic Framework	The review of the first half (2002–2007) of the implementation period of the GMS Strategic Framework (GMSSF); the framework is generated as part of the GMS programme, initiated in 1992, to pursue the strategic thrusts and priority initiatives of the 10-year period (2002–2012).
Office of the Education Council (CHE)	2003	The Act of Academic Promotional Procedure in Higher Education Institutions (in Thai)	The regulations, promotional criteria and standard procedure on academic promotion.
Commission on Higher Education (CHE)	2005	Higher Education data and Information: Commission on Higher Education 2005	The collection of figures and statistical data on higher education in 2005.
Commission on Higher Education (CHE)	2008	Manual for the internal quality assurance for higher education institutions	Detailed guidelines on internal and external quality assurance procedure and measurements for higher education institutions.
Office of the National Economic and Social Development Board (NESDB)	2004	The Government Authorities Decentralisation for Supporting Regional Development	A report on revisiting the decentralisation of the government authorities to support the development in regions throughout the country. Suggestions on further implications of the system
Office of the National Economic and Social Development Board (NESDB)	2005	The ninth national economic and social development plan (2002–2006)	Detailed plan under the national scheme of building a knowledge economy in Thailand. An emphasis of the national needs to increase sciences and technology work force, regarded essential for the national competitive capability in the globalisation.

Organisation	Date	Documents	Summary of Contents
Office of the National Economic and Social Development Board (NESDB)	2006	Strategic plan on potential areas of regional development during the Tenth National Development Plan (in Thai)	Strategic plans on three potential advanced development in Thailand subregions including: the East and the Nakorn Ratchasima of the Northeast, 2) the western Central, Bangkok and vicinities, 3) the South.
Office of the National Economic and Social Development Board (NESDB)	2006	Gross Regional and Provincial Products 2006 Edition	Report on Gross Provincial Product (GPP) 2000–2006 by province and region.
Office of the National Economic and Social Development Board (NESDB)	2008	Attitudes upon Sustainable Development from Development Projects in Southern Thailand	Report of the survey of peoples attitude in the south for guiding industrial and service sector development, concerning: the peoples attitude towards industrial and service sector development, the direction of industrial and service sector development for which majority of people require, the examination of strength, weakness, opportunity and threat for the viewpoints of civil society. The three dimensions of attitude studied include: economic dimension, social dimension and environment dimension.
Office of the National Economic and Social Development Board (NESDB)	2008	Regional development strategy (in Thai)	The government strategic plans on the development of four regions, including: the North, the South, the Central and the North-east.
Office of the National Economic and Social Development Board (NESDB)	2008	The Tenth national economic and social development plan (2007–2011)	Detailed plan under the national scheme of building a creative economy in Thailand. An emphasis of the national needs to increase sciences and technology work force together with the revitalisation of Thai wisdom. Economic development is to carried out taking into consideration the needs of Thai communities, various contexts of sub-national economy, culture and traditions of Thai people.
The National Statistical Office of Thailand (NSO)	2007	Industrial Census in 2007	The collection of basic information on manufacturing establishments, such as number, distribution and performance of establishments during the year. The information is presented by political regions.

Organisation	Date	Documents	Summary of Contents
Office of National Research Council of Thailand (NRCT)	2006–2008	Thailand Research Database	Detailed information about research projects carried out in Thailand by sectors and research organisations, statistics and volume of funding included.
National Research Council of Thailand (NRCT)	2006	Thailand's 2006 research: the data and statistical information of research projects, funding, researcher and research organisations	Detailed annual data and statistical information about research projects in Thailand along with types of the research, funding, researcher and the organisation with which the project is acknowledged. Also, critical analysis about Thailand's research capability is given from the NRCT's view. Recommendations for research in needs of the Thai social and economic development is also provided.
National Research Council of Thailand (NRCT)	2007	Thailand's 2007 research: the data and statistical information of research projects, funding, researcher and research organisations	Detailed annual data and statistical information about research projects in Thailand along with types of the research, funding, researcher and the organisation with which the project is acknowledged. Also, critical analysis about Thailand's research capability is given from the NRCT's view. Recommendations for research in needs of the Thai social and economic development is also provided.
National Research Council of Thailand (NRCT)	2008	Thailand's 2008 research: the data and statistical information of research projects, funding, researcher and research organisations	Detailed annual data and statistical information about research projects in Thailand along with types of the research, funding, researcher and the organisation with which the project is acknowledged. Also, critical analysis about Thailand's research capability is given from the NRCT's view. Recommendations for research in needs of the Thai social and economic development is also provided.
Office of the Education Council (OEC)	2004	A Summary of Financing of Thai Higher Education: a Leverage for Quality Improvement Reform	Summary of the Government financing system employed for all types of higher education institutions.
Office of the Education Council (OEC)	2004	Report on Transition from a University under the Bureaucratic System to an Autonomous University: Reflections on Concepts and Experiences of King Mongkut's University of Technology Thonburi.	Report on the first university having been transferred from civil servant institutions to an autonomous university. The case of this university is often referred to as an ideal transformation for public universities in Thailand.

Organisation	Date	Documents	Summary of Contents
Office of the Education Council (OEC)	2003	Strategies and Roadmap for Higher Education Reform in Thailand	The document is prepared in following the of the establishment of the Education Reform Steering Committee. The documents provides the direction of the education reform, preparation of the relevant work plans as well as supervision for implementation of the reform measures, including formulation of the requisite strategy.
Office of the Education Council (OEC)	2006	Office of the Education Council Annual Report 2006	Disclosure of the operations and performance of the Office of Education Council, the government department having responsibility for the national education at all levels including higher education.
Office of the National Education Commission (OEC)	2006	Education in Thailand 2005/2006	Summary of statistical information about the Thai higher education system in fiscal year 2005–2006.
Office of the Education Council (OEC)	2007	Education in Thailand 2007	Summary of statistical information about the Thai higher education system in fiscal year 2007.
Office of the National Education Commission (ONEC)	1999	National Education Act B.E. 2542 (1999)	The legal provisions on education prepared in accordance with the Constitution of the Kingdom of Thailand of 1997. The Act provides principles and guidelines for the provision, reformation and development of Thai education based on the concept of learning society in a knowledge-based economy.
Office of the National Education Commission (ONEC)	2002	National Education Act B.E. 2542 (1999) and Amendments (Second National Education Act B.E. 2545 (2002))	The amended version of the National Education Act B.E. 2540 (1997).
Office of the National Education Commission (ONEC)	2003	The Act on Administrative Procedures for Civil Servants in Higher Education Institutions	The regulations of personal management in higher education institutions. This Act leads to the difference in academic employment statuses of academic members divided into two groups, civil servants and university employees.
Office of National Educational Standards and Quality Assessment (ONESQA)	2006–2009	ONESQA's official website	Information about key performance indicators (KPIs) and procedure of educational quality assurance (QA) of relevance to academic services in public universities

Organisation	Date	Documents	Summary of Contents
Office of the Prime Minister (OPM)	2008	Thailand in Brief	General data about Thailand: land and people, history, government and diplomacy, economy, society culture and general political and national development policies.
Secretariat of the Cabinet	2007	The criteria for academic promotions in higher education institutions (in Thai)	Criteria for academic promotions concerning the time qualified as academic staff, accumulative work and publications; Procedure in the academic promotional system.
Thailand Development Research Institute (TDRI)	2007–2008	TRDI Reports	Directions of research in needed. An analysis of the needs of Thailand from the government points of view.
Thailand Research Fund (TRF)	2006–2007	TRF Annual Reports	Reports and statistics on research carried out in Thailand by researchers and research organisations.
University A	2005–2009	University A's official website	Official public information about the University, particular an updated information about the University mission, pre-published annual reports and financial reports and institutional statistics such as student and staff numbers. Also, the website provides an updated official information about individual academic departments and academic staff of the department, research centres and recent activities of each.
University A	2005–2007	University A Annual Reports	Disclosures of University A operations and financial positions. The documents includes the University annual financial statements, senior management structure, mission statement, strategic plans and highlights of the year.
University A	2005–2007	University A Strategic plans	Outlines of the vision, mission and values of the University.
University B	2005–2009	University B's official website	Official public information about the University, particular an updated information about the University mission, pre-published annual reports and financial reports and institutional statistics such as student and staff numbers. Also, the website provides an updated official information about individual academic departments and academic staff of the department, research centres and recent activities of each.

Organisation	Date	Documents	Summary of Contents
University B	2005–2007	University B Annual Reports	Disclosures of University B operations and financial positions. The documents includes the University annual financial statements, senior management structure, mission statement, strategic plans and highlights of the year.
University B	2006	University B Human Resources	A part of the University development information series. The document presents structures of the university staff and strategic plans on human resources management including academic competency development projects.
University B	2006	University B Development Plan	An internal document stating the University development plan for the five years period of 2007–2011.
University C	2005–2009	University C's official website	Official public information about the University, particular an updated information about the University mission, pre-published annual reports and financial reports and institutional statistics such as student and staff numbers. Also, the website provides an updated official information about individual academic departments and academic staff of the department, research centres and recent activities of each.
University C	2005–2007	University C Annual Reports	Disclosures of University C operations and financial positions. The documents includes the University annual financial statements, senior management structure, mission statement, strategic plans and highlights of the year.
University C	2006	University C Human Resources	A part of the University development information series. The document presents structures of the university staff and strategic plans on human resources management including academic competency development projects.

Appendix B

PREVIOUS STUDIES IN THE THAILAND CONTEXT

Author (Date)	Area	Level	Purpose of Study	Research Method	Key Findings
Brimble (2006)	UILs	Institutional	To illustrate the current stage of UILs in Thailand.	Multiple case studies	The study highlights both efforts of private firms to participate in UILs and weak response from universities and government agencies in the system leading to the less success of NIS in Thailand. Based on six empirical case studies, the author recommends four actions to take into consideration: (1) full commitment of top management from UILs stakeholders (universities, government, industries); (2) experienced persons assigned to manage the linkages built; (3) link programmes are to be based on entrepreneurial foundations; and (4) issue of trust (acknowledging needs of each other — universities and industries).
Brimble and Doner (2007)	UILs	National	To analyse UILs at the national level and in four sectors (automotive, textilesgarments, agro-industry, and electronics).	Interviews and documentary analysis	Universities are indicated as an essential actor in UILs, together with private firms, research technology organisations and government agencies. An insufficient role of universities providing knowledge that meet private sector's need is the key contribution to the weakness and fragmented UILs in this country. HE reform is anticipated to solve the problem.
Chaminade *et al.* (2008)	NIS	National	To develop a framework to identify systemic problems using innovation survey data of Thailand in 2003.	Documentary analysis; hierarchical (two-stage) factor analysis	For developing countries, measures to strengthen firms' capabilities in absorbing and exploiting external information and knowledge like industrial consultancy, testing, technology transfer, quality system services are more important than R&D tax incentive, which the author indicate as the measure widely used in developed systems.

Continued on Next Page...

Author (Date)	Area	Level	Purpose of Study	Research Method	Key Findings
Chulasai (2003)	KE	Regional	To outline the profile of Northern Thailand concerning it's socio-economic characteristics regarded as the background to the KE implementation in this region.	Document Research	Northern Thailand is regarded as a high potential area for KE development. Chiang Mai city is said to be the centre of the KE implementation. Some factors, such as ICT and supports and political incentives, are still need to be enhanced.
Intarakumnerd *et al.* (2002)	NIS	National	To understand the NIS in Thailand, which is less successful in technological catching-up. Recommendations are to be provided to other developing countries.	Document Research	NIS in Thailand is weak and fragmented as it does not link to its economic structural development level. This is due to its agricultural economic foundation, which is different from industrialised foundation of developed countries. Factors contributing to this fragmented system need to be solved in order that effective NIS is promoted in this country. One of the key factors identified is unsatisfactory academic capabilities.
Intarakumnerd and Chaminade (2007)	NIS	National	To analyse the innovation policy of Thailand concerning how (and if) it has been systematically done in practice.	Document Research	At policy level the government adopt S&T policy based on IS approaches developed in developed countries. In practice, however, the context of Thailand is found as not well responding to the policy. The authors suggest two key strategies for the problem to be solved: one is to educate policy-makers and the other is to promote capacity building at operational level, academic personnel included, concerning certain national, sectoral and regional innovation systems of Thailand itself.

Author (Date)	Area	Level	Purpose of Study	Research Method	Key Findings
Intarakumnerd and Schiller (2008)	UILs	Institutional	To identify successes and failures of UILs in Thailand.	Interviews and documentary analysis	Looking at universities acting in UILs, their actions being positive for UILs successes include: (1) the formation of UILs mission, (2) outward orientation based on teaching activities, (3) organisational transformation into autonomous universities. Their actions being negative include: (1) individual promotion involving heavy teaching workload, (2) low quality academic research, (3) poor systematic management of individual involvement in UILs. Their actions being in doubt whether or not to be positive are: (1) university research agencies having little role, (2) unstructured TTMs. Further studies on these in doubt actions are recommended.
Liefner and Schiller (2008)	Academic Services	Individual	To propose a new framework to understand the role of universities in the technological upgrading of developing countries by introducing the concept of academic capabilities.	Interviews and documentary analysis	'There are some promising approaches towards intermediate academic capabilities, but they are in general not pushed ahead systematically by the respective universities or government agencies ...the variety of universities with very different levels of research and teaching will be a continuing feature of the Thai higher education system.' (p.291)
Makishima (2003)	KE	Regional	To outline the profile of Southern Thailand concerning it's socio-economic characteristics regarding the KE implementation in this region.	Document Research	There are various regional attributes regarded as the basis for this region being developed as a knowledge economy. The key issues involve the need to promote enabling actions of innovative actors, particularly regional government agencies, universities and regional industries. Universities are expected to be the knowledge intermediater and graduate production.

Author (Date)	Area	Level	Purpose of Study	Research Method	Key Findings
NESDB and World Bank (2008)	KE	National	To evaluate the current stage of the KE development in Thailand in order that analytic recommendations are made to cultivate the KE success.	Document research	Considering universities and the actors in the system, Thai universities still lack of potentiality to sufficiently provide knowledge that meet private sector's needs. The recommendations are given as better research research quality and UILs being required. In this same time, leading universities need to balance between their traditional and commercialising activities, which are claimed as the key incentives for these universities acting in the UILs.
Sangnapaboworn (2003)	HE reform	National	To outline HE reforms and to discuss traditional universities being transformed into autonomous institutions.	Document research	The university autonomy is anticipated to result in a better performance of public universities. The author agrees with the idea that political supports and understanding are required as these universities would become more 'materialised' once their university autonomy is granted. In this regard, the Thai wisdom is recommended to have more role in shaping the knowledge production and provision.
Schiller (2006a)	UILs	Institutional	To discuss the potential to upgrade the Thai innovation system by university-industry linkages.	Interviews and documentary analysis	There are lack of systematic UILs participated by Thai universities. The problem mainly occurred at departmental level The author reveals that individual departments at Thai universities show UIL being mostly limited to consulting and technical services, hampered by mutual distrust, and maintained to receive an extra personal income. Also, most contacts are made on personal basis without the university's full recognition.

Author (Date)	Area	Level	Purpose of Study	Research Method	Key Findings
Schiller (2006b)	RIS	Regional	To adapts a conceptual framework, developed by based on RIS in developed systems, to demonstrate the potential role of universities in RISs in developing countries such as Thailand and to translate into expectations for the empirical analysis.	Interviews and documentary analysis	The author discovers that the direct impact of universities on regional needs differ significantly among his studied three RISs, geographically located in Bangkok, the North and the North-east. Despite the three studied universities being ranked among top research-oriented universities in Thailand, the perceptions of academic themselves prevented academic involvement in the RISs. This is due to they doing 'a trade-off between world-class research, academic prestige, and responses to regional needs' (p.500). The author concludes that institutional and regional factors strongly affect the responses of Thai universities to regional needs.
Schiller and Liefner (2007)	UILs	National	To discuss empirical data based on an investigation into the cooperation activities of five Thai universities.	Interviews and documentary analysis	Thai HE funding reform is to cut public spending and to stimulate universityindustry cooperation as a means to obtain additional university income. However, financial benefits for university-industry cooperation activities are very limited. One of the main reasons is the lack of high academic capabilities being unable to sufficiently provide the knowledge that meet industrial needs.

Author (Date)	Area	Level	Purpose of Study	Research Method	Key Findings
Sharma (2004)	Academic Performance	Individual	To investigate academic staff workload and related issues in a research and a teaching and learning higher education institution in Thailand.	Survey	The authors draw their conclusions based on teaching-learning and research workloads of academic staff; services task is left out. Despite this study not being directly related to this thesis's enquiry made mainly into service task, it provides interesting conclusions, those are: (1) staff in a university with a strong research mission tend to have a greater commitment with their position within their university; (2) administrative responsibilities assigned to some of the staff are seen as not really contributing to the principal mission of universities. The latter conclusion is also implied as a constraining factor of academic related responsibilities.
Sinlarat (2002)	HE reform	National	To outline and critically analyse historical reforms of Thai HE.	Document research	There are four phases of reform share many common techniques, methods, and strategies. These phases include: (1) reform for professionals, (2) reform for liberalism, (3) reform for massification, and (4) reform for new management.
Sinlarat (2005)	Academic Performance	Individual	To outline problems underpinning the teaching-learning in Thai universities and to propose a solution.	Document research	The author proposes a solution to the problem underpinning the lack of sufficient knowledge of academic staff and poor learning creativity of the students. This solution involves the concepts of integrated systems of knowledge and a change in the culture of education in Thai universities. Academic staff needs to do more research in the Thailand context to improve their capability of knowledge production.

Author (Date)	Area	Level	Purpose of Study	Research Method	Key Findings
Sinlarat (2007)	HE reform	National	To discuss the concept behind the national development process in Thailand and the roles of higher education.	Document research	The proposition of Creative and Productive Higher Education (CPHE) as an alternative concept for HE in Thailand.
Teerajarmorn *et al.* (2003)	Academic Evaluation	Individual	To develop a way of scoring university academics' performance that covered all of their major tasks and reflected quality as well as quantity.	Survey	Academic performance could be divided into six principal tasks and 35 subtasks that are appropriate for two very different Thai universities. Despite the similarities of these tasks and subtasks, different weighting factors for these tasks are needed, as reflected by individual academic perceptions. The weighting factors are recommended to be in accord with the university mission being different from one to the other.
Termpitayapaisit (2006)	KE	National	To outline the implementation of KE policy in Thailand and evaluate its performance using international measurements.	Document research	To use several international measurements, such as World Economic Forum (WEF) Technology and Innovation Indicators and Knowledge Assessment Methodology (KAM), the KE, particularly in terms of S&T innovation, of Thailand is evaluated as in a relatively low rank in terms of S&T infrastructure. The key problem is the lack of sufficient education outputs and workforce. Also, expenditure on UILs and R&D are relatively low.

Author (Date)	Area	Level	Purpose of Study	Research Method	Key Findings
Thamrongthanyawong (2005)	HE policy	National	To re-examine existing policy problems and to thoroughly understand the Thai socio-economic discrepancies.	Document research	Providing a critical review of the current and future problems of the Thai HE, the author concludes that HE agenda should comprise (p.14): (1) standard of higher education institutions, (2) guidelines for the production of graduates to match up the national development, (3) establishment and development of higher education institutions, (4) provision of educational loan, and (5) quality of graduates.
Virasa (2008)	TTMs	Institutional	To examine agents involved in university-industry technology transfer process and to identify institutions emerging to facilitate technology commercialisation.	Case study; Interviews and documentary analysis	The Thai government's innovation-driven policy creates pressures for traditional universities, such as the author's case study (Mahidol University), to put their efforts to increase interactions between university and industry. To efficiently respond to the policy, the author conclude that '[i]t is necessary for university administrators, researchers and academic professors to understand the concept of innovation system and the role of university in technology transfer and commercialisation'(p.12).
Webster (2006)	RISs	Policy-making	To examine the role that geographic clusters can and should play in the ongoing restructuring of the Thai economy.	Documentary analysis.	The four clusters under the examination include: 1) the Thai Riviera of the Central region, to be promoted as a coastal amenity region; 2) The eastern seaboard (ESB) of the East region; 3) The northern axis cities of the North region, to be promoted as a design centre and posited as a knowledge interface between SEA and China; 4) and the greater Phuket of the South region, to be promoted as a truly international knowledge city.

Appendix C

TRADITIONAL LIMITED ADMISSION PUBLIC UNIVERSITIES

TABLE C.1: Traditional Limited Admission Public Universities

	University	Foundation	Student Enrolments[*]	Province (Main Campus)	Region[**]
1	Chulalongkorn University	1917	32,069	Bangkok	Central
2	Kasetsart University	1943	43,519	Bangkok	Central
3	King Mongkut's University of Technology Ladkrabang	1960	19,463	Bangkok	Central
4	King Mongkut's University of Technology North Bangkok	1959	19,983	Bangkok	Central
5	King Mongkut's University of Technology Thonburi[***]	1960	13,149	Bangkok	Central
6	Thammasat University	1934	26,934	Bangkok	Central
7	The National Institute of Development Administration	1966	9,555	Bangkok	Central
8	Mahidol University	1943	22,847	Bangkok	Central
9	Srinakarinwirot University	1949	18,271	Bangkok	Central
10	Silpahorn University	1943	15,263	Bangkok	Central
11	Burapha University	1990	20,089	Chonburi	East
12	Chiang Mai University	1964	27,382	Chiang Mai	North
13	Naresuan University	1990	29,461	Phisanulok	North
14	Maejo University	1934	10,689	Chaing Mai	North
15	Mae Fah Luang University[***]	1997	5,130	Chiang Rai	North
16	Khon Kaen University	1964	23,854	Khon Kaen	Northeast
17	Suranaree University of Technology[***]	1990	6,865	Nakhon Ratchasima	Northeast
18	Mahasarakahm University	1994	28,296	Mahasarakham	Northeast
19	Ubon Ratchathani University	1996	6,487	Ubon Ratchathani	Northeast
20	Prince of Songkla University	1967	31,647	Songkla	South
21	Thaksin University	1990	7,673	Songkla	South
22	Walailak University[***]	1992	5,294	Nakorn Si Thammarat	South

Note: [*]in academic year 2005, [**]political region, [***]autonomous university.
Source: Office of the Commission on Higher Education, Ministry of Education, 2005.

Appendix D

INTERVIEW FIELDWORK

Centre for Higher Education Management and Policy at Southampton
School of Management, University of Southampton
Highfield, Southampton, SO17 1BJ, UK
Tel: +44 (0) 23 8059 3076, Fax: +44 (0) 23 8059 3844

5 January 2007

Subject: Invitation to participate in Suteera Chanthes's PhD research project

Dear …………………………………………

Attachments:
1 Participant information sheet
1 Interview questions sheet
1 Informed Consent Form

This letter serves to give you an invitation to participate in a PhD research project currently being undertaken in the Centre for Higher Education Management and Policy at Southampton (CHEMPaS), University of Southampton, UK.

The title of this project is "Delivering academic services at regional level: a grounded theory study of Thai academics". My supervisor is Professor John Taylor. The primary aim of the research is to make a contribution to knowledge in the management of public universities which could be used to suggest Thai public universities in their management and to help these universities in contributing to regional and national development.

This is a UK-based research project; most of the research processes are undertaken in the UK except the data collection which has been scheduled to be held in Thailand in March 2007.

Please take time to read the attached participant information sheet and interview topic guide. Your participation is the most important part in this research project.

I look forward to hearing from you soon. Your help would be very much appreciated.

Yours sincerely,

Suteera Chanthes Postgraduate Research Student
Centre for Higher Education Management and Policy at Southampton (CHEMPaS)
School of Management
University of Southampton

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School of Management, University of Southampton
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Tel: +44 (0) 23 8059 3076, Fax: +44 (0) 23 8059 3844

วันที่   5 มกราคม พ.ศ .2550
เรื่อง   ขอสัมภาษณ์และนำข้อมูลไปใช้เพื่องานวิจัยในการศึกษาระดับปริญญาเอก

เรียน   ………………………………………………

สิ่งที่แนบมาด้วย
คำชี้แจงลักษณะงานวิจัย 1 ฉบับ
คำถามในการสัมภาษณ์ 1 ฉบับ
ข้อตกลงในการให้ข้อมูลเพื่องานวิจัย 1 ฉบับ

     ด้วยดิฉัน นางสาวสุธีรา จันทร์เทศ นักศึกษาปริญญาเอก ณ University of Southampton ประเทศสหราชอาณาจักร มีความประสงค์จักขอเข้าสัมภาษณ์ท่านและนำข้อมูลไปใช้ในงานวิจัยเพื่อทำวิทยานิพนธ์ในการศึกษาระดับปริญญาเอก โดยดิฉันจักขอสัมภาษณ์ท่านเป็นเวลาประมาณ 45-60 นาที ในวันและช่วงเวลาตามแต่ท่านจะสะดวก ในเดือนมีนาคม พ.ศ .2550

     หัวข้อของโครงการวิจัยนี้คือ "Delivering academic services at regional level: a grounded theory study of Thai academics" โดยมี Professor John Taylor ผู้อำนวยการ Centre for Higher Education Management and Policy at Southampton, University of Southampton, UK เป็นอาจารย์ที่ปรึกษาโครงการ

     โครงการวิจัยนี้มุ่งหวังที่จะค้นคว้าวิธีการบริหารบุคลากรทางวิชาการในมหาวิทยาลัยของรัฐที่ทำให้มหาวิทยาลัยสามารถแสดงบทบาทการเป็นมหาวิทยาลัยในภูมิภาคอย่างมีประสิทธิภาพและสามารถใช้บทบาทนี้เพิ่มศักยภาพการแข่งขันของมหาวิทยาลัยภายใต้สภาวะการแข่งขันระหว่างสถาบันอุดมศึกษาที่มีแนวโน้มเพิ่มมากขึ้นในปัจจุบัน

     เพื่อให้โครงการวิจัยนี้สำเร็จได้ จำเป็นอย่างยิ่งที่จะต้องศึกษาถึงความคิดเห็นและทัศนคติในการปฏิบัติงานของบุคลากรทางวิชาการในมหาวิทยาลัย ดิฉันจึงใคร่ขอความกรุณาจากท่านในการให้สัมภาษณ์ โดยหวังเป็นอย่างยิ่งว่าจะได้รับความอนุเคราะห์จากท่านในโอกาสนี้

     จึงเรียนมาเพื่อโปรดพิจารณา

                              ขอแสดงความนับถือ

                              นางสาวสุธีรา จันทร์เทศ

Information Sheet

Project Title

Delivering Academic Services at Regional Level:
A Grounded Theory Study of Thai Academics

Researcher	Suteera Chanthes
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Supervisor	Professor John Taylor
	Tel: + 44 (23) 8 059 7797
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	Email: jtaylor@soton.ac.uk
Fieldwork dates	1 - 31 March 2007
Location	Thailand

Interview Guide

Project Title:	Delivering academic services at regional level: a grounded theory study of Thai academics
Participant:	An academic
Session duration:	45 - 60 minutes
Type:	Semi-structured interview

Method: face-to-face interview. Semi-structured interview, based on pre-determined questions but with the opportunity for further questions and discussion.

Audio recording device: one electronic voice recorder

Aim: this study aims to examine the extent to which Thai academics perform the work to fulfil the regional engagement and investigate academic's contemporary experiences pertinent to making impact on the surrounding region.

Interview structure: this interview will be exploratory in nature; the participant is assisted by a given outline of interview topic and questions to generate data from his/her perspective.

Outline of interview topic: the interview is to cover the following areas:

1. Demographic of the participant:
   The demographic information required includes the participant's age and personal and professional backgrounds.

2. Questions about the university the participant work for:
   The researcher intends to make inquiries about the characteristics of the university management and operation from participant's perspective.

3. Issues regarding the region:
   Questions in this area intend to obtain information about the terms region, 'regional engagement, and the academic involvement with region perceived by the participant.

4. Questions concerning the work of the participant:
   The participant is questioned about the way in which he/she performs his/her work at the university. Factors influencing the performing of work are also made.

5. Inquiries about the performing of academic work of relevance to the regional concerns: Questions in this area guide the participant to discuss his/her recognition about the importance of working to fulfil the regional engagement. The participant is expected to share his/her experience, if applicable, in performing the work that results in regional impacts.

<div align="center">**รายละเอียดการสัมภาษณ์**</div>

ชื่องานวิจัย: Delivering academic services at regional Level: a grounded theory study of Thai academics

ผู้ให้สัมภาษณ์:   บุคคลากรสายงานวิชาการในมหาวิทยาลัยของรัฐ

ระยะเวลาการสัมภาษณ์:   45 – 60 นาที

ลักษณะการสัมภาษณ์:   Semi – structured interview

อุปกรณ์บันทึกเสียงการสัมภาษณ์: เครื่องบันทึกเสียงดิจิตอล จำนวน 1 ชุด

วัตถุประสงค์ของการสัมภาษณ์:   การสัมภาษณ์นี้ ต้องการเก็บข้อมูลในส่วนความเข้าใจของอาจารย์มหาวิทยาลัย ในการทำงานในมหาวิทยาลัยและให้ผลงานของตนนั้น มีส่วนร่วมพัฒนาในภูมิภาคที่มหาวิทยาลัยของตนตั้งอยู่

ขั้นตอนการสัมภาษณ์

การสัมภาษณ์นี้มุ่งหาข้อมูลในเชิงลึกและคุณภาพ ผู้สัมภาษณ์จะถามคำถามในลักษณะเป็นการสนทนา และผู้ให้สัมภาษณ์จะให้ข้อมูลจากประสบการณ์ตรงของตนเอง และสามารถเพิ่มข้อมูลใดๆ ที่นอกเหนือจากคำถาม แต่เกี่ยวข้องกับเรื่องที่สนทนาได้ตลอดการสัมภาษณ์

หัวข้อการสัมภาษณ์ ประกอบไปด้วย 5 ส่วนคือ

1. ข้อมูลส่วนตัวผู้ให้สัมภาษณ์:
    ผู้สัมภาษณ์จะขอข้อมูลส่วนตัว, อายุ, ความเชี่ยวชาญทางวิชาการ และตำแหน่งทางวิชาการของผู้ให้สัมภาษณ์

2. ข้อมูลเกี่ยวกับมหาวิทยาลัยที่ผู้ให้สัมภาษณ์ทำงานอยู่:
    ผู้สัมภาษณ์จะถามคำถาม ถึงลักษณะการบริหารของมหาวิทยาลัย และบรรยากาศการทำงานในมหาวิทยาลัยจากมุมมองของผู้ให้สัมภาษณ์

3. ข้อมูลเกี่ยวกับภูมิภาค:
    ผู้สัมภาษณ์จะขอให้ผู้ให้สัมภาษณ์อธิบายความเข้าใจของตน เกี่ยวกับคำว่า ภูมิภาค การทำงานที่เกี่ยวข้องกับภูมิภาค และบทบาทหน้าที่ของอาจารย์มหาวิทยาลัยที่มีต่อภูมิภาคในฐานะที่เป็นอาจารย์ที่ทำงานอยู่ในมหาวิทยาลัยของรัฐ

4. ข้อมูลเกี่ยวกับการทำงานของผู้ให้สัมภาษณ์:
    ผู้สัมภาษณ์จะขอให้ผู้ให้สัมภาษณ์เล่าถึงการทำงานในมหาวิทยาลัย และปัจจัยที่มีผลกระทบต่อการทำงาน และผลของงาน

5. คำถามเกี่ยวกับการทำงานที่มีส่วนเกี่ยวข้องกับภูมิภาค:
    ผู้สัมภาษณ์จะขอให้ผู้ให้สัมภาษณ์เล่าถึงมุมมองของตน ต่อการที่อาจารย์มหาวิทยาลัยจะทำงานโดยมุ่งหวังให้เกิดการพัฒนาของภูมิภาคของตน รวมถึงเล่าประสบการณ์ตรง (ถ้ามี) ที่ได้เคยทำงานลักษณะดังกล่าวนี้

Interview Questions

Date:
Time:
Voice recorded no:
Participant:
Contact information:
Research site:
Interview venue:
Note:

1. **Demographic of the participant**

   a) Can you inform me your age please?

   b) Where is your home town? Why do you choose to work at this university?

   c) How long have you been qualified as an academic?

   d) What is your current academic position? How long have you been appointed to this position?

   e) Could you outline your professional and academic background please?

2. **Questions about the university the participant work for**

   a) How would you describe the characteristics of your university as being one of the Thai higher education institutions?

   b) How would you position your university management character, between perfectly flexible and strictly disciplined? Why?

   c) What do you perceive as the influences of how your university operate? What are they? Why do you concern fort those factors as the influences?

3. **Issues regarding the region**

   a) How do you define the term region?

   b) Considering that you are working at this university, how do you define the scope of the surrounding region of your university?

   c) How is this scope of region significant? Why do you define your university surrounded by this scope of region?

   d) Can you describe the characteristics of your defined region please?

   e) How would you define the term 'regional engagement'?

   f) How do you see your university engage in your defined surrounding region, in addition to being located in the area?

4. **Questions concerning the work of the participant**

   a) Can you describe your understanding about the national and institutional policy regarding the direction of your university please?

   b) Do you have any administrative position? If yes, please describe your roles and responsibility in this position?

    c) Can you describe your roles and responsibility please?

    d) What do you think is the university's expectation on you, as part of the university operation? How do you see yourself responding to that expectation?

    e) What are your efforts in performing work?

    f) What do you consider as difficulties in performing work?

    g) Can you describe how do you prioritize your work please? What are considered as influences of doing so? Why?

5. **Inquiries about the performing of academic work of relevance to the regional concerns**

    a) Is it essential for your university to play a role in contributing to the development of your defined region? Why?

    b) Given your defined region, do regional concerns affect the way in which you perform your work? How?

    c) What can be considered as factors to affect your responding to the regional concern? Are there any institutional, regional or individual factors? Please explain.

    d) How do you assess your engagement with the surrounding region? If applicable, please explain me activities that your work makes impact on the defined region?

Additional Questions

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คำถามในการสัมภาษณ์

1. ข้อมูลส่วนตัวผู้ให้สัมภาษณ์
    1.1 ดิฉันขอทราบอายุของท่านด้วยค่ะ
    1.2 พื้นเพท่านเป็นคนจากที่ไหน ท่านเลือกมาทำงานที่มหาวิทยาลัยนี้ได้อย่างไร
    1.3 ท่านทำงานเป็นอาจารย์มหาวิทยาลัยมานานเพียงใด
    1.4 ขณะนี้ ท่านมีตำแหน่งทางวิชาการระดับใด และได้รับตำแหน่งนี้ มานานเพียงใด
    1.5 กรุณาอธิบายลักษณะงานวิชาการในสาขาของท่านโดยสังเขป

2. ข้อมูลเกี่ยวกับมหาวิทยาลัยที่ผู้ให้สัมภาษณ์ทำงานอยู่
    2.1 ท่านจะอธิบายลักษณะของมหาวิทยาลัยของท่าน ในฐานะที่เป็นสถาบันอุดมศึกษาแห่งหนึ่ง ว่าอย่างไร
    2.2 ท่านมองว่าการทำงานภายใต้ระบบการบริหารของมหาวิทยาลัยของท่านมีความอิสระและยืดหยุ่นเพียงใด
    2.3 ท่านคิดว่ามีปัจจัยใดบ้างที่มีผลต่อการดำเนินงานของมหาวิทยาลัยของท่าน

3. ข้อมูลเกี่ยวกับภูมิภาค
    3.1 ท่านให้ความหมายของคำว่า Region อย่างไร
    3.2 ในฐานะที่ท่านทำงานเป็นอาจารย์ในมหาวิทยาลัยนี้ ท่านจะนิยามของเขตของภูมิภาคของท่านอย่างไร
    3.3 ภูมิภาคที่ว่านี้ มีความสำคัญอย่างไร
    3.4 ขอให้ท่านช่วยอธิบายลักษณะของภูมิภาคนี้ด้วย
    3.5 ท่านจะให้นิยามของการมีส่วนร่วมต่อภูมิภาคของมหาวิทยาลัย ว่าอย่างไร
    3.6 ท่านมองว่ามหาวิทยาลัยของท่านมีส่วนร่วมในภูมิภาคอย่างไร

4. ข้อมูลเกี่ยวกับการทำงานของผู้ให้สัมภาษณ์
    4.1 ท่านคิดว่านโยบายอุดมศึกาาของประเทศไทย และนโยบายบริหารของมหาวิทยาลัยของท่าน ว่ามีผลต่อแนวทางการดำเนินงานของมหาวิทยาลัยอย่างไร
    4.2 ท่านมีตำแหน่งบริหารใดในมหาวิทยาลัยหรือไม่
    4.3 ขอให้ท่านช่วยอธิบายบทบาทและหน้าที่ของท่านในมหาวิทยาลัยด้วย
    4.4 ท่านคิดว่า มหาวิทยาลัยของท่าน มีความคิดหมายต่อการทำงานของท่านอย่างไร และผลงานที่ท่านได้ทำงานมานั้น ตอบสนองมหาวิทยาลัยมากน้อยเพียงใด
    4.5 แรงขับดันในการทำงานของท่านคืออะไรบ้าง
    4.6 ท่านมองว่า การทำงานในมหาวิทยาลัยนี้ มีอุปสรรคใดๆบ้างหรือไม่ ถ้ามี อะไรบ้าง

4.7 ท่านจัดสรรเวลาและทรัพยากรในการทำงานอย่างไร และอะไรคือปัจจัยที่มีผลในการจัดสรร
การทำงานของท่าน

5. คำถามเกี่ยวกับการทำงานที่มีส่วนเกี่ยวข้องกับภูมิภาค

5.1 ท่านมองว่าการมีส่วนร่วมรับผิดชอบต่อการพัฒนาของภูมิภาคมีความสำคัยต่อมหาวิทยาลัย
ของท่านอย่างไร

5.2 จากที่ท่านได้ให้นิยามของและขอบเขตของภูมิภาคของท่านมา ท่านมองว่าการทำงาน
วิชาการต้องให้ความสนใจต่อปัญหาระดับภูมิภาคนั้นหรือไม่ ถ้ามี อย่างไร

5.3 ท่านมองว่ามีปัจจัยใดบ้าง ที่จะทำให้ท่านทำงานเพื่อให้ส่งผลต่อการพัฒนาของภูมิภาคของ
ท่านและปัจจัยเหล่านั้น มีปัจจัยภายในมหาวิทยาลัย, ปัจจัยด้านลักษณะภูมิภาค หรือปัจจัย
ที่มาจากตัวท่านเองด้วยหรือไม่

5.4 ท่านจะประเมินการทำงานของท่าน ที่มีส่วนร่วมต่อการทำงานเพื่อภูมิภาคของได้ว่าอย่างไร
กรุณายกตัวอย่างและอธิบายถึงกิจกรรมที่ท่านได้ ถ้ามี

Informed Consent Form
Project Title
"Delivering academic services at regional level:
a grounded theory study of Thai academics"

Name of Participant...

- I have read the Participant Information Sheets. The nature and purpose of the research project has been explained to me. I understand and agree to take part.

- I understand the purpose of the research project and my involvement in it.

- I understand that I may withdraw from the research project at any stage and this will not affect my status now or in the future.

- I understand that while information gained during the study may be published, I will not be identified and my personal results will remain strictly confidential.

- I understand that I will be audio recorded during the interview.

- I understand that the data will be stored in: 1) one electronic file of voice recorded; and 2) one electronic copy of transcript at the University of Southampton. Only the researcher named will have access to the data.

- I understand that I may contact the researcher or supervisor if I require further information about the research.

Signature..Date....................
Participant

Signature..Date....................
Researcher

Researcher's contact details
Name: Suteera Chanthes (MPhil/PhD Student)
Telephone number: + 44 (0)23 8059 3557
Fax number: + 44 (0)23 8059 3844
Email: sc9@soton.ac.uk

Supervisor's contact details
Name: Professor John Taylor
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Fax number: + 44 (0)23 8950 3844
Email: jtaylor@soton.ac.uk

บันทึกคำยินยอม
Project Title

"Delivering academic services at regional level:
a grounded theory study of Thai academics"

ชื่อผู้ให้สัมภาษณ์……………………………………………....................................

- ข้าพเจ้าได้อ่านรายละเอียดการสัมภาษณ์แล้ว และเข้าใจในวิธีการและวัตถุประสงค์ของงานวิจัยนี้ ข้าพเจ้าจึงตกลงให้ความร่วมมือเป็นผู้ให้สัมภาษณ์

- ข้าพเจ้าเข้าใจวัตถุประสงค์ของงานวิจัยนี้และรู้ว่าส่วนร่วมของข้าพเจ้ามีบทบาทอย่างไรในงานวิจัย

- ข้าพเจ้ามีสิทธิ์ในการถอนตัวจากงานวิจัยนี้เมื่อใดก็ได้ หากต้องการ และผลจากการถอนตัวนั้นจะไม่มีผลกระทบใดๆกับข้าพเจ้า ทั้งในปัจจุบันและอนาคต

- ข้าพเจ้ารับทราบว่าผลจากงานวิจัยซึ่งข้าพเจ้ามีส่วนร่วมในการให้ข้อมูลนี้ อาจจะถูกตีพิมพ์ และข้อมูลส่วนบุคคลใดๆของข้าพเจ้า จะต้องเป็นความลับ ไม่เป็นที่เปิดเผยในการตีพิมพ์นั้นๆ

- ข้าพเจ้ารับทราบ ว่าการให้สัมภาษณ์นี้ ได้ถูกบันทึกเสียงโดยตลอด

- ข้าพเจ้ารับทราบ ว่าข้อมูลที่ข้าพเจ้าให้นั้น นะถูกเก็บในรูปของ 1) ไฟล์เสียงอิเล็กทรอนิก 2) ไฟล์เอกสารบันทึกคำให้สัมภาษณ์ โดยเก็บไว้ ณ University of Southampton และผู้ที่ได้รับอนุญาติให้ใช้ข้อมูลทั้งสองแหล่งนี้ได้ คือ ผู้วิจัยเท่านั้น

- ข้าพเจ้ารับทราบ ว่าข้าพเจ้าสามารถติดต่อผู้วิจัยหรืออาจารย์ที่ปรึกษาเพื่อขอข้อมูลเพิ่มเติมเกี่ยวกับงานวิจัยนี้ได้เมื่อต้องการ

ลายมือชื่อ………………………………………………………**วันที่**………………....…………..
  ผู้ให้สัมภาษณ์

ลายมือชื่อ……………………………………………..…………**วันที่**………………..…………..
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Appendix **E**

CODING STRUCTURES

TABLE E.1: Coding Families and Theoretical Codes

Investigation proposition	Coding Family	Substantive Theory Developed	
	(Relationship of categories within the family)	What (the finding)	How (Explanation/Hypothesis)
Regional profiling	**Regional proximity** (the geographic proximity surrounding the university with which academic staff interact as they perform academic activities). **Region needs** (the knowledge needs of relevance to social economic attributes existing within the proximity to which academic staff respond). **Regional assets** (Inputs to regional services).	The university's region	The **regional proximity** hosts **regional needs** and **regional assets** used as inputs to academic activities.
Institutional profiling	**Institutional expectation** (factor that shapes academic understanding about their university's expectation on their service performance). **Organizational structure** (attributes throughout layers of the university's organization with which academics interact as they deliver their services). **Academic management** (the formation of management factors influencing individual performance of service).	Institutional organisation of systematic services	The **institutional expectation** is reflected by the **organizational structure** and the academic management of the university. The **organizational structure** and the **academic management** serve systematic performance and delivery of regional services.
Individual profiling	**Under-accounted services** (systematic accounted service performance being less than actual activities undertaken). **Ordinary disciplinary fashion** (disciplinary factors found to influence service performance of individual staff) **Individual qualification** (qualification of individual staff found to influence their service performance).	Reasons for individual staff lacking systematic performance of academic services	Despite the institutional organisation, academic staff **do not fully use the designated system** for their services. The **underused system** is caused by **under-accounted** and **undermined** services. The **under-accounted services** happen at academic departments formed following the ordinary disciplinary fashion of academic community.

Source: developed by the author.

FIGURE E.2: Institutional Profiling Coding Families and Categories
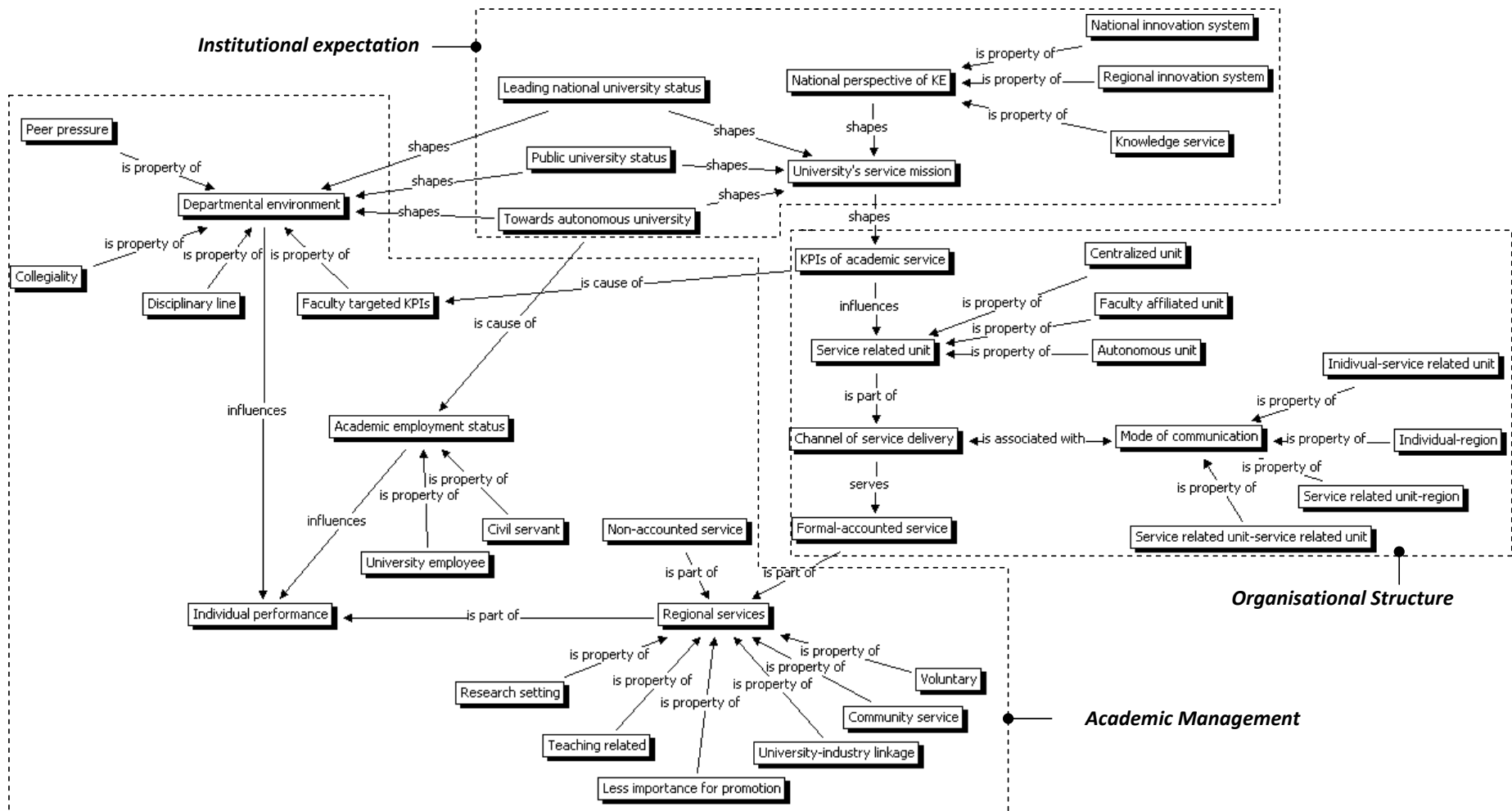
FIGURE E.3: Individual Profiling Coding Families and Categories
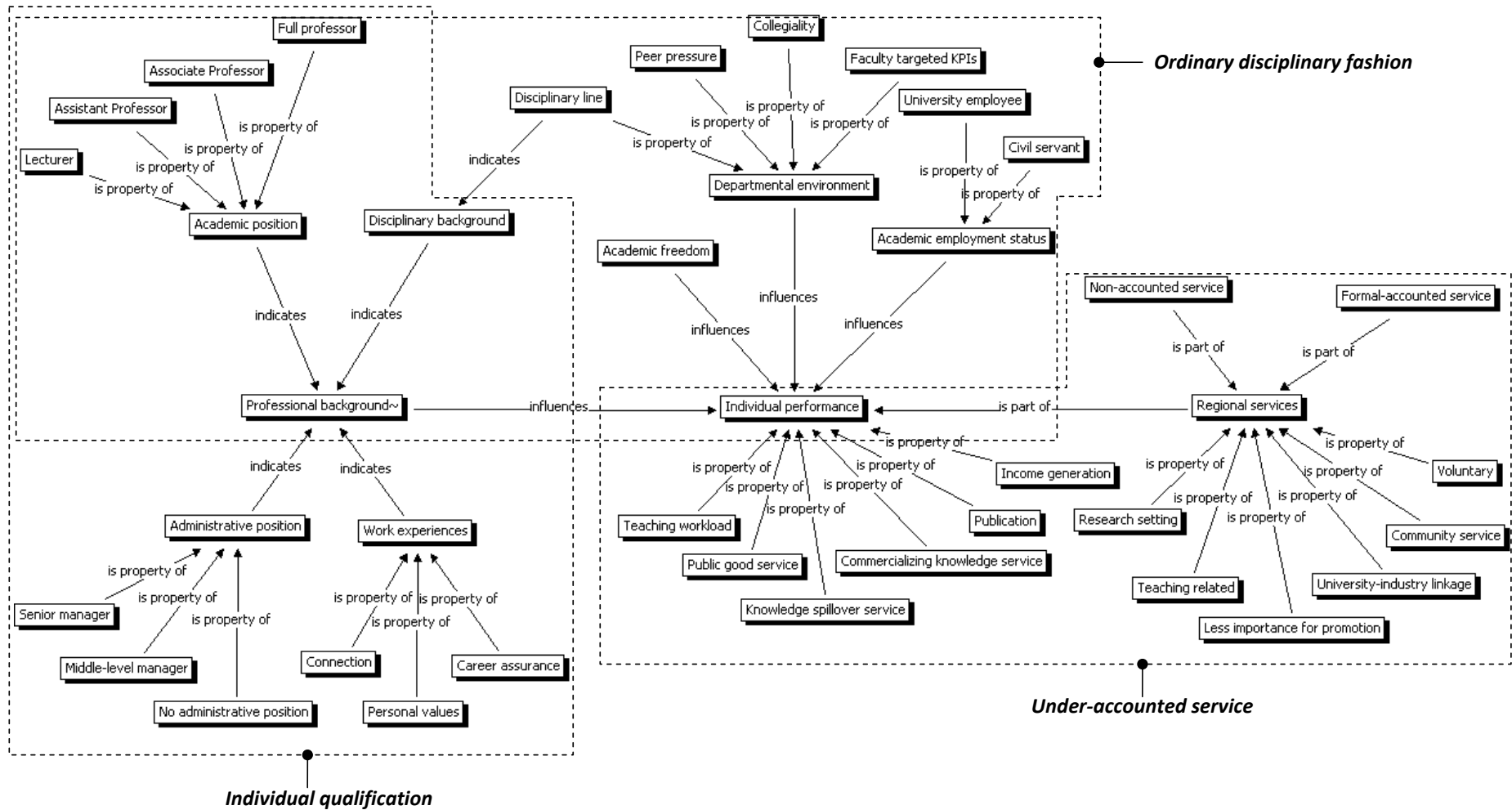
```
Regional services
    Regional assets <is cause of>
    Regional needs <is cause of>
    UNI A's regional services <is property of>
    UNI B's regional services <is property of>
    UNI C's regional services <is property of>

Regional assets
    <is cause of> Regional services
    Material assets <is part of>
    Non-material assets <is part of>
    Service proximity <hosts>
    The Core assets <is property of>
    The GMS assets <is property of>
    The GMS material assets <is property of>
    The GMS non-material assets <is property of>
    The North assets <is property of>
    The North material assets <is property of>
    The North non-material assets <is property of>
    The South assets <is property of>
    The South non-material assets <is property of>

The South
    <hosts> Needs of the South
    <is property of> Service proximity
    <hosts> The South assets
    <is property of> University locality
    <is property of> University regional agenda
    UNI B historical development <indicates>
    UNI B participant <is part of>
    UNI B regional agenda <indicates>
    UNI B service mission <indicates>
    UNI B Southern identity <indicates>

Service proximity
    <hosts> Regional assets
    <hosts> Regional needs
    Regional identity <is associated with>
    The Capital <is property of>
    The GMS <is property of>
    The North <is property of>
    The South <is property of>
    UNI historical development <is associated with>
    University locality <is associated with>
    University regional agenda <is associated with>

Needs of the Core
    <is property of> Regional needs
    Central to country development <is part of>
    Central to international connections <is part of>
    Locals with diverse origins <is part of>
    National administration <is part of>
    Non-agricultural based economy <is part of>
    Non-agricultural based workforce <is part of>
    The Core <hosts>
    UNI A's regional services <is associated with>

The South non-material assets
    <is property of> Regional assets
    <is property of> The South assets
    Local arts <is property of>
    Muslim tradition <is property of>
```

```
    Southern culture <is property of>
    Southern endogeneous knowledge <is property of>
    Southern identity <is property of>
    Southern tradition <is property of>

The North
    <hosts> Needs of the North
    <is property of> Service proximity
    <hosts> The North assets
    <is property of> University locality
    <is property of> University regional agenda
    UNI C historical development <indicates>
    UNI C Northern identity <indicates>
    UNI C participant <is part of>

The GMS
    <hosts> Needs of the GMS
    <is property of> Service proximity
    <hosts> The GMS assets
    <is property of> University locality
    <is property of> University regional agenda
    UNI C participant <is part of>
    UNI C regional agenda <indicates>
    UNI C service mission <indicates>

The Core material assets
    <is property of> The Core assets
    Home to capital city <is part of>
    Home to state authorities <is part of>
    National enterprises <is part of>
    Non-resource based industries <is part of>
    Other leading HEIs partners <is part of>
    Transportation convenience <is part of>

The GMS non-material assets
    <is property of> Regional assets
    <is part of> The GMS assets
    <is associated with> The North non-material assets
    Historical arts <is property of>
    Lanna culture <is property of>
    Mekong basin shared tradition <is property of>
    Northern endogeneous knowledge <is property of>

University locality
    <is associated with> Service proximity
    The Capital <is property of>
    The Core <is property of>
    The GMS <is property of>
    The North <is property of>
    The South <is property of>

The South assets
    <is associated with> Needs of the South
    <is property of> Regional assets
    The South <hosts>
    The South material assets <is property of>
    The South non-material assets <is property of>
    UNI B's regional services <is associated with>

The GMS assets
    <is associated with> Needs of the GMS
    <is property of> Regional assets
    The GMS <hosts>
```

```
    The GMS material assets <is property of>
    The GMS non-material assets <is part of>
    UNI C's regional services <is associated with>

Regional needs
    <is cause of> Regional services
    Needs of the Core <is property of>
    Needs of the GMS <is property of>
    Needs of the North <is property of>
    Needs of the South <is property of>
    Service proximity <hosts>

The North material assets
    <is property of> Regional assets
    <is property of> The North assets
    Natural resource <is property of>
    Northern local <is property of>
    Resource-based industry <is property of>
    Transportation convenience <is property of>

The North assets
    <is associated with> Needs of the North
    <is property of> Regional assets
    The North <hosts>
    The North material assets <is property of>
    The North non-material assets <is property of>
    UNI C's regional services <is associated with>

University regional agenda
    <is associated with> Service proximity
    No regional agenda <is property of>
    The GMS <is property of>
    The North <is property of>
    The South <is property of>

No specific service proximity
    No regional agenda <indicates>
    No regional identity <indicates>
    UNI A's historical development <indicates>
    UNI A's regional services <is associated with>
    UNI A's service mission <indicates>

Needs of the GMS
    <is associated with> Needs of the North
    <is property of> Regional needs
    The GMS <hosts>
    The GMS assets <is associated with>
    UNI C's regional services <is associated with>

Needs of the North
    <is property of> Regional needs
    Needs of the GMS <is associated with>
    The North <hosts>
    The North assets <is associated with>
    UNI C's regional services <is associated with>

The Core
    <hosts> Needs of the Core
    <hosts> The Core assets
    <is property of> University locality
    Bangkok <is a>
    The Capital <is a>
```

```
The Core assets
    <is property of> Regional assets
    The Core <hosts>
    The Core material assets <is property of>
    The Core non-material assets <is property of>
    UNI A's regional services <is associated with>

UNI C's regional services
    <is associated with> Needs of the GMS
    <is associated with> Needs of the North
    <is part of> Regional services
    <is associated with> The GMS assets
    <is associated with> The North assets

The South material assets
    <is property of> The South assets
    Natural resource <is property of>
    Regional HEI partner <is property of>
    Resource-based industry <is property of>
    Transportation convenience <is property of>

UNI A's regional services
    <is associated with> Needs of the Core
    <is associated with> No specific service proximity
    <is property of> Regional services
    <is associated with> The Core assets

Needs of the South
    <is property of> Regional needs
    The South <hosts>
    The South assets <is associated with>
    UNI B's regional services <is associated with>

UNI historical development
    <is associated with> Service proximity
    UNI A's historical development <is property of>
    UNI B historical development <is property of>
    UNI C historical development <is property of>

The Core non-material assets
    <is property of> The Core assets
    Attraction to business and investment <is part of>
    Cultural diversity <is part of>
    Less clarity of regional identity <is part of>

The North non-material assets
    <is property of> Regional assets
    <is property of> The North assets
    The GMS non-material assets <is associated with>

Transportation convenience
    <is part of> The Core material assets
    <is property of> The North material assets
    <is property of> The South material assets

The Capital
    <is property of> Service proximity
    <is a> The Core
    <is property of> University locality

UNI B's regional services
    <is associated with> Needs of the South
    <is property of> Regional services
```

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```
    <is associated with> The South assets

No regional agenda
    <indicates> No specific service proximity
    <is property of> University regional agenda

UNI C historical development
    <indicates> The North
    <is property of> UNI historical development

UNI A's historical development
    <indicates> No specific service proximity
    <is property of> UNI historical development

UNI B historical development
    <indicates> The South
    <is property of> UNI historical development

Resource-based industry
    <is property of> The North material assets
    <is property of> The South material assets

UNI C participant
    <is part of> The GMS
    <is part of> The North

The GMS material assets
    <is property of> Regional assets
    <is property of> The GMS assets

Natural resource
    <is property of> The North material assets
    <is property of> The South material assets

No regional identity
    <indicates> No specific service proximity
National administration
    <is part of> Needs of the Core
Central to country development
    <is part of> Needs of the Core
Other leading HEIs partners
    <is part of> The Core material assets
Cultural diversity
    <is part of> The Core non-material assets
Central to international connections
    <is part of> Needs of the Core
Southern culture
    <is property of> The South non-material assets
Northern local
    <is property of> The North material assets
Muslim tradition
    <is property of> The South non-material assets
UNI B service mission
    <indicates> The South
Regional HEI partner
    <is property of> The South material assets
Non-material assets
    <is part of> Regional assets
UNI B Southern identity
    <indicates> The South
Home to state authorities
    <is part of> The Core material assets
Southern identity
```

```
    <is property of> The South non-material assets
UNI C regional agenda
    <indicates> The GMS
Mekong basin shared tradition
    <is property of> The GMS non-material assets
Locals with diverse origins
    <is part of> Needs of the Core
National enterprises
    <is part of> The Core material assets
Southern tradition
    <is property of> The South non-material assets
Non-agricultural based economy
    <is part of> Needs of the Core
Attraction to business and investment
    <is part of> The Core non-material assets
Material assets
    <is part of> Regional assets
UNI B regional agenda
    <indicates> The South
Local arts
    <is property of> The South non-material assets
Bangkok
    <is a> The Core
Lanna culture
    <is property of> The GMS non-material assets
Non-agricultural based workforce
    <is part of> Needs of the Core
Northern endogenous knowledge
    <is property of> The GMS non-material assets
UNI C Northern identity
    <indicates> The North
UNI C service mission
    <indicates> The GMS
Regional identity
    <is associated with> Service proximity
Historical arts
    <is property of> The GMS non-material assets
Less clarity of regional identity
    <is part of> The Core non-material assets
Southern endogenous knowledge
    <is property of> The South non-material assets
UNI A's service mission
    <indicates> No specific service proximity
Home to capital city
    <is part of> The Core material assets
UNI B participant
    <is part of> The South
Non-resource based industries
    <is part of> The Core material assets
```

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```
Regional services
    Formal-accounted service <is part of>
    Non-accounted service <is part of>

Departmental environment
    Disciplinary line <is property of>
    Faculty targeted KPIs <is property of>
    Leading national university status <shapes>
    Public university status <shapes>
    Towards autonomous university <shapes>

Leading national university status
    <is cause of> Academic assessment criteria
    <is cause of> Academic promotion
    <shapes> Departmental environment
    <is cause of> Development of research centre
    <is cause of> Relative importance of research
    <shapes> University's service mission

Disciplinary line
    <is property of> Departmental environment
    Sciences and technology <is property of>
    Social sciences <is property of>

Public university status
    <shapes> Departmental environment
    <shapes> University's service mission
    Government policy <influences>
    State funding <influences>
    Traditional public commitment <influences>

Mode of communication
    <is associated with> Channel of service delivery
    Individual-region <is property of>
    Inidivual-service related unit <is property of>
    Service related unit-region <is property of>
    Service related unit-service related unit <is property of>

Towards autonomous university
    <is cause of> Academic employment status
    <shapes> Departmental environment
    <is cause of> Personal management policy
    <is cause of> Resource management
    <shapes> University's service mission

University's service mission
    <shapes> KPIs of academic service
    Leading national university status <shapes>
    National perspective of KE <shapes>
    Public university status <shapes>
    Towards autonomous university <shapes>

University regional agenda
    No regional agenda <is property of>

Service related unit
    <is part of> Channel of service delivery
    Autonomous unit <is property of>
    Centralized unit <is property of>
    Faculty affiliated unit <is property of>
    KPIs of academic service <influences>

National perspective of KE
```

```
    <shapes> University's service mission
    Knowledge service <is property of>
    National innovation system <is property of>
    Regional innovation system <is property of>


Academic promotion
    <is property of> Rewarding mechanism
    Academic assessment criteria <influences>
    Academic evaluation <is associated with>
    Leading national university status <is cause of>


Academic employment status
    Civil servant <is property of>
    Towards autonomous university <is cause of>
    University employee <is property of>


Rewarding mechanism
    Academic promotion <is property of>
    Monetary <is property of>
    Special recognition <is property of>


Channel of service delivery
    <serves> Formal-accounted service
    Mode of communication <is associated with>
    Service related unit <is part of>


Academic assessment criteria
    <influences> Academic promotion
    Leading national university status <is cause of>


Formal-accounted service
    <is part of> Regional services
    Channel of service delivery <serves>


KPIs of academic service
    <influences> Service related unit
    University's service mission <shapes>


No regional agenda
    <is property of> University regional agenda
Development of research centre
    Leading national university status <is cause of>
Civil servant
    <is property of> Academic employment status
Regional innovation system
    <is property of> National perspective of KE
University employee
    <is property of> Academic employment status
Social sciences
    <is property of> Disciplinary line
Faculty targeted KPIs
    <is property of> Departmental environment
Faculty affiliated unit
    <is property of> Service related unit
Academic evaluation
    <is associated with> Academic promotion
Relative importance of research
    Leading national university status <is cause of>
Resource management
    Towards autonomous university <is cause of>
Service related unit-region
    <is property of> Mode of communication
Service related unit-service related unit
```

```
    <is property of> Mode of communication
Centralized unit
    <is property of> Service related unit
Autonomous unit
    <is property of> Service related unit
Monetary
    <is property of> Rewarding mechanism
Traditional public commitment
    <influences> Public university status

Less clarity of regional identity

National innovation system
    <is property of> National perspective of KE
Special recognition
    <is property of> Rewarding mechanism
State funding
    <influences> Public university status
Non-accounted service
    <is part of> Regional services
Individual-region
    <is property of> Mode of communication
Government policy
    <influences> Public university status
Individual-service related unit
    <is property of> Mode of communication
Sciences and technology
    <is property of> Disciplinary line
Personal management policy
    Towards autonomous university <is cause of>
Knowledge service
    <is property of> National perspective of KE
```

```
Regional services
    <is part of> Individual performance
    Formal-accounted service <is part of>
    Less importance for promotion <is property of>
    Non-accounted service <is part of>
    Research setting <is property of>
    Teaching related <is property of>
    University-industry linkage <is property of>
    Voluntary <is property of>

Individual performance
    Academic employment status <influences>
    Academic freedom <influences>
    Commercializing knowledge service <is property of>
    Departmental environment <influences>
    Income generation <is property of>
    Knowledge spillover service <is property of>
    Professional background <influences>
    Public good service <is property of>
    Publication <is property of>
    Regional services <is part of>
    Teaching workload <is property of>

Departmental environment
    <influences> Individual performance
    Collegiality <is property of>
    Disciplinary line <is property of>
    Faculty targeted KPIs <is property of>
    Peer pressure <is property of>

Disciplinary line
    <is property of> Departmental environment
    <indicates> Disciplinary background
    Health sciences <is property of>
    Sciences and technology <is property of>
    Social sciences <is property of>

Professional background
    <influences> Individual performance
    Academic position <indicates>
    Administrative position <indicates>
    Disciplinary background <indicates>
    Work experiences <indicates>

Academic position
    <indicates> Professional background
    Assistant Professor <is property of>
    Associate Professor <is property of>
    Full professor <is property of>
    Lecturer <is property of>

Administrative position
    <indicates> Professional background
    Middle-level manager <is property of>
    No administrative position <is property of>
    Senior manager <is property of>

Academic employment status
    <influences> Individual performance
    Civil servant <is property of>
    University employee <is property of>

Work experiences
```

```
    <indicates> Professional background
    Career assurance <is property of>
    Connection <is property of>
    Personal values <is property of>

Lecturer
    <is property of> Academic position
    Junior Staff <is>
Junior Staff
    <is> Assistant Professor
    <is> Lecturer
Assistant Professor
    <is property of> Academic position
    Junior Staff <is>
Associate Professor
    <is property of> Academic position
    Senior staff <is>
Disciplinary background
    <indicates> Professional background
    Disciplinary line <indicates>
Full professor
    <is property of> Academic position
    Senior staff <is>
Formal-accounted service
    <is part of> Regional services
Senior staff
    <is> Associate Professor
    <is> Full professor
Commercializing knowledge service
    <is property of> Individual performance
Collegiality
    <is property of> Departmental environment
Civil servant
    <is property of> Academic employment status
Social sciences
    <is property of> Disciplinary line
Connection
    <is property of> Work experiences
University employee
    <is property of> Academic employment status
Academic freedom
    <influences> Individual performance
Voluntary
    <is property of> Regional services
University-industry linkage
    <is property of> Regional services
Career assurance
    <is property of> Work experiences
Teaching related
    <is property of> Regional services
Teaching workload
    <is property of> Individual performance
Faculty targeted KPIs
    <is property of> Departmental environment
Middle-level manager
    <is property of> Administrative position
Less importance for promotion
    <is property of> Regional services
Public good service
    <is property of> Individual performance
No administrative position
    <is property of> Administrative position
Personal values
```

```
     <is property of> Work experiences
Peer pressure
     <is property of> Departmental environment
Non-accounted service
     <is part of> Regional services
Health sciences
     <is property of> Disciplinary line
Sciences and technology
     <is property of> Disciplinary line
Senior manager
     <is property of> Administrative position
Income generation
     <is property of> Individual performance
Knowledge spillover service
     <is property of> Individual performance
Publication
     <is property of> Individual performance
Research setting
     <is property of> Regional services
```

ECONOMIC ACTIVITIES IN THAILAND BY REGION

F.1 ECONOMIC ACTIVITIES IN BANGKOK

F.2 ECONOMIC ACTIVITIES IN THE SOUTH

F.3 ECONOMIC ACTIVITIES IN THE NORTH

TABLE F.1: Percentage of GPP at Current Market Prices in Bangkok

unit: percent

Industry	2000	2001	2002	2003	2004	2005	2006
Agriculture	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
Agriculture, Hunting and Forestry	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-Agriculture	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**
Mining and Quarrying	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing	22.4	22.4	20.7	21.2	20.4	20.3	20.1
Electricity, Gas and Water Supply	2.2	2.2	2.3	2.1	2.2	1.9	2.0
Construction	3.0	3.2	2.9	2.7	2.7	3.2	3.2
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	25.5	24.6	24.1	23.4	23.5	23.3	23.4
Hotels and Restaurants	11.3	11.5	11.8	10.8	10.9	10.6	11.3
Transport, Storage and Communication	15.8	16.2	17.0	16.5	16.0	15.8	15.1
Financial Intermediation	4.9	4.9	5.6	6.9	7.1	7.6	7.2
Real Estate, Renting and Business Activities	3.6	3.5	3.7	3.7	3.6	3.6	3.6
Public Administration and Defence; Compulsory Social Security	4.8	5.1	5.3	5.7	5.8	5.9	6.0
Education	2.1	2.1	1.9	1.8	2.1	1.9	2.3
Health and Social Work	1.4	1.5	1.5	1.6	1.5	1.6	1.6
Other Community, Social and Personal Services Activities	2.7	2.6	3.0	3.3	3.7	3.8	3.8
Private Households with Employed Persons	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Gross Provincial Product (GPP)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: National Economic and Social Development Board (NESDB).

TABLE F.2: GPP at Current Market Prices in Bangkok

unit: billions of Baht

Industry	2000	2001	2002	2003	2004	2005	2006
Agriculture	**1.7**	**1.9**	**2.3**	**2.5**	**2.4**	**2.7**	**3.0**
Agriculture, Hunting and Forestry	1.4	1.5	1.9	2.2	2.1	2.3	2.7
Fishing	0.3	0.4	0.4	0.3	0.3	0.4	0.3
Non-Agriculture	**1,580.4**	**1,657.2**	**1,669.2**	**1,737.6**	**1,900.5**	**2,025.5**	**2,127.8**
Mining and Quarrying	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing	354.6	371.3	345.9	368.5	388.8	412.1	429.2
Electricity, Gas and Water Supply	34.6	35.9	38.1	37.4	41.5	39.0	42.0
Construction	47.4	52.7	47.9	47.0	51.2	65.7	69.0
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	402.7	408.5	402.2	406.4	447.7	473.3	499.6
Hotels and Restaurants	178.3	190.5	196.8	187.5	206.7	215.1	240.1
Transport, Storage and Communication	250.1	268.8	284.1	286.6	303.7	320.1	321.3
Financial Intermediation	76.9	81.1	92.9	119.7	135.9	154.9	153.7
Real Estate, Renting and Business Activities	56.9	57.6	61.7	64.9	68.5	72.0	76.0
Public Administration and Defence; Compulsory Social Security	76.5	84.0	89.1	98.5	110.9	119.6	127.3
Education	33.6	34.8	32.2	31.4	40.3	39.5	48.7
Health and Social Work	22.4	24.3	24.7	27.3	29.3	32.2	34.9
Other Community, Social and Personal Services Activities	42.2	43.6	49.3	58.0	71.2	77.1	81.0
Private Households with Employed Persons	4.0	4.2	4.2	4.4	4.7	4.8	4.9
Gross Provincial Product (GPP)	**1,582.0**	**1,659.0**	**1,671.5**	**1,740.1**	**1,902.9**	**2,028.2**	**2,131.8**
GPP Per capita (Baht)	243,737	254,060	254,087	262,211	283,884	299,037	312,507
Population (1,000 persons)	6,491	6,530	6,578	6,636	6,703	6,782	6,818

Source: National Economic and Social Development Board (NESDB).

TABLE F.3: Percentage of GRP at Current Market Prices in Southern Region

unit: percent

Industry	2000	2001	2002	2003	2004	2005	2006
Agriculture	**30.9**	**29.9**	**31.6**	**34.5**	**35.1**	**35.7**	**37.9**
Agriculture, Hunting and Forestry	15.4	15.7	19.4	24.5	25.6	26.8	29.8
Fishing	15.4	14.2	12.1	10.0	9.4	9.0	8.1
Non-Agriculture	**69.1**	**70.1**	**68.4**	**65.5**	**64.9**	**64.3**	**62.1**
Mining and Quarrying	2.3	2.5	2.5	2.4	2.4	2.5	2.5
Manufacturing	14.9	14.8	14.4	14.6	14.4	14.3	13.5
Electricity, Gas and Water Supply	2.8	3.0	2.7	2.6	2.4	2.5	2.4
Construction	3.4	3.0	3.5	3.6	3.4	3.3	3.2
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	14.4	14.1	12.6	12.0	11.7	11.5	11.1
Hotels and Restaurants	6.1	6.5	7.2	6.2	6.6	5.4	5.1
Transport, Storage and Communications	4.9	5.3	5.1	4.6	4.5	4.5	5.0
Financial Intermediation	1.9	2.1	2.1	2.1	2.2	2.3	2.5
Real Estate, Renting and Business Activities	3.9	4.0	3.8	3.5	3.2	3.1	2.8
Public Administration and Defence; Compulsory Social Security	4.8	4.8	4.7	4.6	4.7	5.0	4.7
Education	6.1	6.2	6.0	5.8	5.8	6.1	5.9
Health and Social Work	2.3	2.6	2.5	2.1	2.1	2.3	2.3
Other Community, Social and Personal Services Activities	1.3	1.3	1.3	1.3	1.3	1.3	1.1
Private Households with Employed Persons	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Gross Regional Product (GRP)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: National Economic and Social Development Board (NESDB).

TABLE F.4: GRP at Current Market Prices in Southern Region

unit: billions of Baht

Industry	2000	2001	2002	2003	2004	2005	2006
Agriculture	**143.4**	**139.1**	**162.4**	**197.7**	**228.3**	**252.3**	**305.7**
Agriculture, Hunting and Forestry	71.7	73.1	100.0	140.2	166.8	189.0	240.4
Fishing	71.7	66.0	62.5	57.4	61.5	63.3	65.3
Non-Agriculture	**321.2**	**326.5**	**352.4**	**374.7**	**422.2**	**454.1**	**501.9**
Mining and Quarrying	10.7	11.7	12.7	13.9	15.7	17.9	19.9
Manufacturing	69.4	69.1	74.3	83.6	93.7	101.3	109.4
Electricity, Gas and Water Supply	13.0	13.8	13.9	14.7	15.5	17.6	19.1
Construction	15.9	13.8	17.9	20.6	22.4	23.4	26.1
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	66.9	65.7	65.0	68.8	76.2	81.4	89.4
Hotels and Restaurants	28.4	30.0	37.0	35.6	42.7	38.3	41.2
Transport, Storage and Communications	22.6	24.8	26.1	26.2	29.4	31.6	40.0
Financial Intermediation	8.8	9.6	10.8	11.8	14.4	16.5	19.9
Real Estate, Renting and Business Activities	17.9	18.5	19.4	20.2	21.0	22.0	22.8
Public Administration and Defence; Compulsory Social Security	22.2	22.2	24.4	26.1	30.8	35.6	38.2
Education	28.2	28.9	30.7	33.3	37.6	42.9	47.7
Health and Social Work	10.6	12.0	13.1	12.2	13.8	16.4	18.4
Other Community, Social and Personal Services Activities	6.2	6.1	6.8	7.5	8.6	9.0	9.3
Private Households with Employed Persons	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Gross Regional Product (GRP)	**464.5**	**465.6**	**514.8**	**572.4**	**650.5**	**706.4**	**807.6**
GRP Per capita (Baht)	56,197	55,578	60,667	66,643	74,889	80,445	90,724
Population (1,000 persons)	8,266	8,378	8,486	8,589	8,686	8,781	8,902

Source: National Economic and Social Development Board (NESDB).

TABLE F.5: Percentage of GRP at Current Market Prices in Northern Region

unit: percent

Industry	2000	2001	2002	2003	2004	2005	2006
Agriculture	**18.0**	**19.3**	**19.8**	**21.9**	**21.8**	**22.5**	**23.6**
Agriculture, Hunting and Forestry	17.5	18.7	19.3	21.3	21.2	22.0	23.1
Fishing	0.5	0.5	0.5	0.6	0.6	0.5	0.4
Non-Agriculture	**82.0**	**80.7**	**80.2**	**78.1**	**78.2**	**77.5**	**76.4**
Mining and Quarrying	4.5	4.2	4.1	3.8	4.0	4.2	4.2
Manufacturing	15.8	14.0	15.8	17.9	17.3	16.3	17.0
Electricity, Gas and Water Supply	2.2	2.2	2.1	2.0	2.0	2.0	2.0
Construction	4.2	4.4	4.6	4.5	4.7	4.2	4.0
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	19.3	19.2	17.9	16.5	16.2	16.1	15.4
Hotels and Restaurants	2.8	2.8	2.7	2.5	2.6	2.6	2.6
Transport, Storage and Communications	4.8	5.0	4.6	4.4	4.5	4.3	4.2
Financial Intermediation	3.1	3.1	3.0	2.9	3.2	3.2	3.5
Real Estate, Renting and Business Activities	4.9	4.9	4.6	4.2	4.0	3.8	3.5
Public Administration and Defence; Compulsory Social Security	6.7	6.8	6.9	6.7	7.0	7.2	6.9
Education	8.6	8.7	8.7	8.1	7.9	8.6	8.4
Health and Social Work	3.9	4.2	3.9	3.4	3.6	3.8	3.7
Other Community, Social and Personal Services Activities	1.1	1.1	1.0	1.0	1.1	1.0	1.0
Private Households with Employed Persons	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Gross Regional Product (GRP)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: National Economic and Social Development Board (NESDB).

TABLE F.6: GRP at Current Market Prices in Northern Region

unit: billions of Baht

Industry	2000	2001	2002	2003	2004	2005	2006
Agriculture	**78.7**	**85.2**	**96.5**	**116.5**	**124.1**	**139.1**	**163.5**
Agriculture, Hunting and Forestry	76.5	82.8	94.2	113.3	120.5	135.7	160.7
Fishing	2.2	2.4	2.3	3.2	3.6	3.3	2.8
Non-Agriculture	**359.2**	**357.2**	**390.8**	**415.9**	**444.0**	**478.9**	**530.7**
Mining and Quarrying	19.6	18.5	20.1	20.2	22.5	25.9	29.3
Manufacturing	69.1	61.8	77.1	95.6	98.3	100.9	117.8
Electricity, Gas and Water Supply	9.6	9.8	10.0	10.5	11.6	12.5	13.8
Construction	18.5	19.6	22.5	24.1	26.5	26.1	27.5
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	84.3	84.8	87.3	87.7	92.2	99.2	106.7
Hotels and Restaurants	12.1	12.4	13.0	13.1	14.7	15.8	17.7
Transport, Storage and Communications	20.9	22.2	22.5	23.6	25.4	26.8	29.3
Financial Intermediation	13.7	13.6	14.7	15.3	18.2	19.5	24.4
Real Estate, Renting and Business Activities	21.5	21.6	22.4	22.6	22.9	23.7	24.6
Public Administration and Defence; Compulsory Social Security	29.3	30.1	33.6	35.9	39.5	44.7	47.8
Education	37.5	38.3	42.5	43.2	44.9	53.0	58.4
Health and Social Work	17.3	18.8	19.1	18.0	20.3	23.4	25.9
Other Community, Social and Personal Services Activities	4.9	5.0	5.1	5.5	6.1	6.5	6.7
Private Households with Employed Persons	0.7	0.7	0.7	0.8	0.8	0.9	0.9
Gross Regional Product (GRP)	**437.9**	**442.4**	**487.3**	**532.4**	**568.1**	**618.0**	**694.3**
GRP Per capita (Baht)	37,503	37,676	41,292	44,921	47,742	51,745	57,914
Population (1,000 persons)	11,675	11,741	11,801	11,853	11,899	11,943	11,988

Source: National Economic and Social Development Board (NESDB).

Appendix G

WORK PRESENTATIONS

PUBLISHED PEER-REVIEWED PAPERS

Chanthes, S., Antony, J., and Taylor, J. (2009). Delivering academic services at regional level: a comparative study of American and Thai Academic Staff. *The 2009 annual conference of the Society for Research into Higher Education (SRHE): Challenging higher education: knowledge, policy and practice. 8th -10th December 2009. South Wales, United Kingdom. Proceedings.*

Chanthes, S. and Taylor, J. (2007). Delivering academic services at regional level: perception from Thai public universities. *The 7th annual conference of the Southeast Asian Association for Institutional Research (SEAAIR): Self sufficient and sustainable higher education - an agenda. 5th - 7th September 2007. Bangkok, Thailand. Proceedings.*

OTHER PRESENTATIONS

Chanthes, S. (2008). Performing academic work in fulfilling the university's regional engagement: a case study of Thai universities. *The 4th Faculty of Laws Arts and Social Sciences (LASS) Graduate School Conference: Practising PhDs: leading and innovating in research, theory and practice. 21st May 2008. University of Southampton, Southampton, United Kingdom. Presentation.*

Chanthes, S. (2008). Performing faculty work in fulfilling the university's regional engagement: a case study of Thai public universities. *The 2008 annual conference of the Canadian Society for the Study of Higher Education (CSSHE). 1st - 3rd June 2008, Vancouver, BC, Canada. Organized session (University-community engagement: Lowering the drawbridge of the ivory tower). Presentation.*

Chanthes, S. and Taylor, J. (2008). Developing an effective mechanism in delivering academic service at regional level: perceptions from Thai universities. *The 1st Paris international conference on education, economy & society. Novotel Paris Tour Eiffel, 17th - 19th July 2008. Paris, France. Presentation.*

Chanthes, S. and Taylor, J. (2007). The role of universities in their regions: perceptions from Thai universities. *The 32nd annual conference of the Association for the Study of Higher Education (ASHE): Informing the public agenda: the role & relevance of research. Seelbach Hilton Hotel, 7th - 10th December 2007. Louisville, KY, USA. Posters session.*

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