

CHAPTER 2

LITERATURE REVIEW

2.1 Chapter Overview

This chapter presents the literature associated with identifying and analysing key bodies of literature contributing to the research, as well as showing the emergence of the research gap from the literature. The chapter gives key definitions and background to the work before outlining theories underpinning the thesis. Finally, the chapter gives a summary of the key research tools such as total quality management (TQM), knowledge management (KM), governance risk management and compliance (GRC) and Malcolm Baldrige National Quality Award (MBNQA)

2.2 Quality System

Since the beginning of the quality system (Roethlisberger and Dickson, 1939), a need was felt to promote the concept of total quality management (TQM) in a formal way and also to serve as a model for implementing TQM. National quality awards have been the means used in various countries to promote TQM among its industries and service sectors. These awards can be broadly classified as competitive awards, non-competitive awards and awards, which are a combination of the two. Competitive awards are like a race in which there are winners of the first, second and third place subject to a minimum qualification standard.

TQM has been globally well-known by Japan approach toward quality improvement (Mani et al. 2003). Feigenbaum was the first quality expert to use the term 'total quality control'. Since then this idea has come to mean an approach to quality that is world-wide, including all aspects of the control or management of quality (Dale, 2003). Feigenbaum (1956) developed the responsibility for quality extended well beyond the manufacturing department. Moreover, He focused the concept that quality could not be achieved goals if products were weakly designed, inefficiently distributed, wrongly marketed and inadequately serviced and supported. In addition, TQM takes together the gathering of productivity, ethics leadership and

performance into a unique relationship (Eriksson, 2003). Also, Crosby (1992) discusses that TQM is not a technique that can be applied artificially to improve the efficiency of an institution. However, it is a natural life, a culture of life that people should do and it should be modeled in positions of leadership, but should eventually be a matter of personal leadership. According to Ebrahimpour (1988), TQM presented the framework between the organisations and the environment that outsiders are a part of organizational process. Moreover, Taguchi (1986) stressed that TQM has been one of the most important ideas applied in the management situation to re-engineer organisations because the concepts of TQM have a main attraction for people. Also, TQM increases organisation's effectiveness and flows around processes. TQM can support organisations to obtain an advantage over their competitors. Furthermore, TQM is the management of quality that is the responsibility of each person within the institution and not just that of management.

The impact of international competition in free world market forces organisations to follow multidimensional survival strategies in which the potential of each available resource is fully utilised (Drensek and Grubb, 1995). For many organisations TQM is a management strategy that firstly enhances an organisational culture embracing continuous improvement and realising the potential of personnel in order to face known problems. Moreover, TQM enhances the integration of quality technologies within each process of the institution in order to provide products and services both economically and customer-friendly. TQM as a management strategy is applied actively by more and more organisations and considered by many in order to obtain the competitive edge. TQM strongly supports this idea, as a method to render better products and services, linked to processes that have to be developed in order to maximise value for customers and other interest groups. TQM as a strategy to improve organisational performance by firstly the commitment of all employees to satisfy the needs of customers as agreed upon at the lowest cost possible, and secondly, through the continuous improvement of products and services, organisational processes and employees involved (Garvin, 1988). This means that the concept of TQM focuses firstly on customer satisfaction via the employees and the integration of quality technologies in all facets of the institution. Secondly, the concept of TQM is extended to include the economic and cost aspects of product and

service rendering in a win-win situation according to which all internal and external customers' prosperity is increased. TQM usually refers to a customer-driven management strategy according to which organisations plan, develop, generate and offer goods and services that are efficient and environment responsive and that will always fulfil the customer in order to achieve the economical edge. TQM is a philosophy and concept to manage an institution as an integrated system and process (Ishikawa, 1985). TQM is a management approach that applies to all processes. Also, a process is the interaction between personnel and organisational resources to produce continuous improvement to satisfy the needs of all interest units (Grandzol and Traaen, 1995). All processes within the TQM concept is to be regarded as a unique, while the organisation is to be regarded as a system with the purpose of performing the process (Shingo, 1986). However, a process is a collection of activities and tasks that requires various inputs to add value. Processes transform inputs to the set outputs by means of human resources, equipment, facilities and documentation. Processes can also be subdivided into subsystems, in the same way an organisation can be subdivided into subsystems. Each subsystem is proposed to perform one or more sub-processes. Outputs are products, strategies, plans, communication, policies, services or some performed by persons or groups (Ishikawa, 1985). Also, TQM mainly as the process of continuous and incremental improvement of existing organisational processes, while business re-engineering including radical redesign and changes to organisational value, processes, structures, and management systems, in order to achieve substantial advances with regard to the performance of the organisation. The two authors define a process as a group of actions that takes one or more types of response and invents an productivity that is of worth to the consumer (Goetsch and Stanley, 1995). The relationship between process approach and TQM by concerning the nature of TQM as a philosophy that combines all processes into an integrated system in an organisation and that unifies all the integrated subsystems as a global organisational entity and links it to the employees, suppliers and customers with the purpose of working together as an operational team for common performance, improvement and to obtain results (Zimmerman, 1996). Moreover, TQM is appropriate to process, task and person. Also, it is related to all processes and not only to manufacturing and production (Evans and William, 1999). According to Juran

(1998), TQM must be applied to all operational parts including design, conception, research and development, accounting, marketing, maintenance in quality improvement. Moreover, supporting functions for example sales, marketing, finances and logistics must also be more involved in the TQM concept. Furthermore, TQM is appropriate to each task, not only those that are concerned with the manufacturing of the product. TQM also demands changes (Evans and Dean, 1994). These changes involve moving away from a situation where control is exercised over employees and their activities to an approach where employees are supported and empowered in their attempts to establish continuous improvement. By following this approach employees are forced to continuously develop new ways of doing things and to question the manner in which the institution functions. According to Evans (2003) TQM is also a system that needs each principal manager to apply leadership and other management skills in each individual leadership and management situation. Also, total quality must be focused on creating cultural values with integrity, solving the potential of personnel, establishing improved structures, systems and procedures, improving all processes in order to develop the ability to fully satisfy all current and future customer requirements (Cascella, 2002).

2.2.1 Quality Award

The well-known national quality awards of the United States of America (USA) was launched in 1987. USA has established national quality awards called Malcolm Baldrige National Quality Award (MBNQA) to improve quality management practices. The national governments are playing an active role in promoting and encouraging organisations to embrace quality management practices because quality management is one of the keys to competitiveness (Lee and Quazi, 2001; Sousan and Voss, 2002). According to the same standard of seven categories of MBNQA, namely leadership, strategic planning, customer focus, measurement analysis and knowledge management, workforce focus, process management, results, both private and public sectors in many developed countries in the world have set up their own national quality management award, for example European quality award (EQA) European Union in 1989, Australia quality award (AQA) in 1998, Singapore quality award (SQA) in 1994, Japan quality award (JQA) in 1995. These awards in

different developed countries borrowed the ideas from world class award which is MBNQA revised according to their own national requirements to implement and have gained success in quality management (Tan, 2002).

The office of the public sector development commission, Thailand (OPDC) has supported Thai government agencies to apply new public management (NPM) by using public sector management quality award (PMQA) that was agreed by Thai ministry in 2005. PMQA is based on a large part of the concepts of MBNQA in The United States of America and Thailand quality award (TQA), which promote understanding of the requirements for performance excellence, competitiveness improvement, and sharing of learning of successful performance strategies (OPDC, 2008). Until 2010, there are not public agencies, which received this award or met the requirements of seven categories of PMQA, especially in educational sector.

This research uses MBNQA to assess quality system in educational sector by using College of Arts Media and Technology (CAMT) as a case study. The study compared international and national awards, namely Malcom Baldrige National Quality Award (MBNQA; USA), European Foundation Quality Award (EFQM), Japan Quality Award (JQA), Canadian Quality Award (CQA), Australian Quality Award (AQA), Thailand Quality Award (TQA) and Public Management Quality Award (PMQA). This is a comparative analysis between the international and Thai quality award approaches, with a special focus on the underlying objectives, quality principle, and structural perspectives are shown in the table 2.1 as followed:

Table 2.1 Comparative Analysis of National and Regional Quality Awards

Source: Adapted from EFQM (2010); OPDC (2008); Vokurka et al. (2000)

	MBNQA	EFQM	JQA	CQA	AQA	TQA /PMQA
Objectives	<ul style="list-style-type: none"> - To help improve performance practices and capabilities - To facilitate communication and sharing of best practices among U.S. organisations 	<ul style="list-style-type: none"> - To promote higher standards of management through shared knowledge and mutual recognition - To stimulate and assist European organisations in improving customer and employee satisfaction, impact on society and business results - To support European managers' efforts to initiate total quality management and achieve global competitive advantage 	<ul style="list-style-type: none"> - To evaluate and recognize methods of companywide quality control for Japanese business 	<ul style="list-style-type: none"> - To encourage the adoption of quality principles, practices and processes in Canada - To improve the profitability, responsiveness and efficiency of organisations through continuous improvement -To bring higher living standards to Canadians 	<ul style="list-style-type: none"> - To give Australian organisations the drive and knowledge for achieving the world's best quality practices - To secure the Australian quality council as the commonwealth's principal quality organisation - To create national wealth 	<ul style="list-style-type: none"> - TQA supports Thai business organisation - PMQA supports Thai public agencies which promote understanding of the requirements for performance excellence, competitiveness improvement, and sharing of learning of successful performance strategies, also encourages Thai royal decree of good governance 2003
Principle	<ul style="list-style-type: none"> have direction and customer focus. - Customers judge quality and performance. - Organisational and personal learning are required - Employees and partners are vital to company success - Success requires capacity for change and flexibility - Market leadership requires a future orientation - Making meaningful change requires innovation - Management requires factual analysis - Public responsibility is important - Performance measurement should focus on results - A systems perspective is required 	<ul style="list-style-type: none"> organisations in defining what sustainability means, providing approaches for its implementation and ensuring consistency between apparently conflicting responsibilities toward shareholders, employees and society - Organisations have higher performance or are more advanced in their structure and processes, by taking part in an exchange of real world practices and experiences. 	<ul style="list-style-type: none"> demonstrate commitment - Learn the new philosophy - Understand inspection - Stop making decisions purely on the basis of cost - Improve constantly and forever - Institute training - Institute leadership - Drive out fear - Optimise the efforts of teams - Eliminate exhortations - Eliminate numerical quotas and management by objective - Remove barriers to pride in workmanship - Encourage education and self-improvement - Take action 	<ul style="list-style-type: none"> and partnering are win-win - Leadership is involvement and example - Primary focus is customer Respect and encouragement heighten employee potential - Strategies should be process oriented and prevention based. - Companies should continuously improve methods and outcomes - Decisions should be made based on factual data or information - Companies are obligated to stakeholders and society in general 	<ul style="list-style-type: none"> defines quality - All processes are variable - Improved process = improved output - Decisions should depend on facts - Improvement should be planned People work in a system - Most important resource is people - Leadership is direction and support - Continuous improvement required continual learning 	<ul style="list-style-type: none"> have implementation of PMQA in 2005 applying for excellence awards to improve quality management practices for advantage of people and nation
Structure	<ol style="list-style-type: none"> 1.Leadership 2.Strategy planning 3.Customer focus 4.Measurement, analysis and knowledge management 5.Workforce focus 6.Process management 7.Results. 	<ol style="list-style-type: none"> 1.Leadership 2.Policy and strategy 3.People Management 4.Resources 5.Processes 6.Customer satisfaction 7.People satisfaction 8.Impact on society 9.Business results 	<ol style="list-style-type: none"> 1.Policies 2.Organisation 3.Information 4.Standardisation 5.Human resources 6.Quality assurance 7.Maintenance 8.Improvement 9.Effects 10.Future plans 	<ol style="list-style-type: none"> 1.Leadership 2.Planning 3.Customer focus 4.People focus 5.Process management 6.Supplier focus 7.Organisational performance 	<ol style="list-style-type: none"> 1.Leadership 2.Strategy, policy and planning 3.Information and analysis 4.People 5.Customer focus 6.Quality of process, product and service 7.Organisational performance 	<ol style="list-style-type: none"> 1.Leadership 2.Strategy planning, 3.Customer focus 4.Measurement, analysis and knowledge management 5.Workforce focus 6.Process management 7.Results.

The MBNQA framework depicts the interrelationships among seven categories of the criteria and the eighth section of the organisational profile. The accompanying diagram presents the Leadership triad, which is composed of three interrelated categories (category one: leadership, category two: strategic planning, and

category three: customer focus), as well as the results triad, which is also comprised of three interrelated categories (category five: workforce focus, category six: process management, and category seven: results). These six categories are supported by the category four of measurement analysis and knowledge Management, which supports the measures and analysis needed to evaluate the triads and their individual categories. The organisational profile aids an organisation to analyse its environment, business relationships, and challenges. The seven categories and the relationship among them are showed in Figure 2.1.

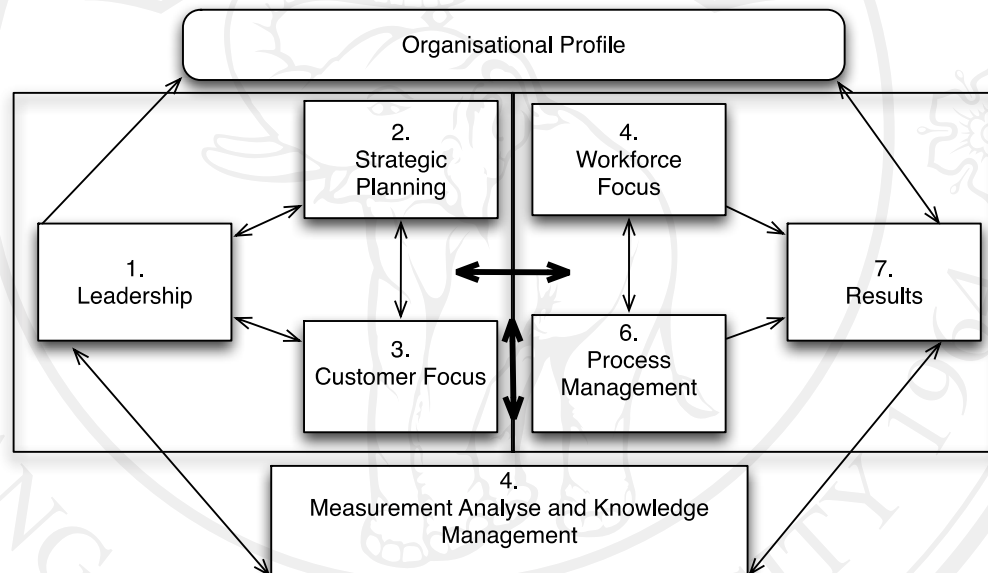


Figure 2.1 MBNQA Framework

The MBNQA of the United States of America has recipients in education organisations, for example the Chugach School District and Pearl River School District and University of Wisconsin-Stout in 2001, Community Consolidated School District 15 in 2003, Kenneth W. Monfort College of Business in 2004, Jenks Public Schools and Richland College in 2005, Iredell-Statesville School in 2008 and Montgomery County Public Schools in 2010 (MBNQA, 2010)

So in 2009, the office of the higher education commission (OHEC), Thailand has set education criteria for performance excellence, which translated in a Thai version of the PMQA criteria that focuses on the specific situations of educational

institutions. There is an increasing competition in the educational marketplace so many institutions are turning their attention to performance excellence as a means of staying competitive, especially for Thai affiliated public universities. Thai education sectors need to understand the differences in the criteria that apply to educational groups. Quality management helps organisation to understand what to focus on, examine relationships with students and other stakeholders, create student learning outcomes, and evaluate processes to give the utmost value. Sousan and Voss (2002) showed that there should be some programmes in quality management in a firm because quality management is very general principle. So this is one challenge for Thai education sectors to start in quality management as the best practices.

There are ten guidelines for good governance of Thai government, namely effectiveness, efficiency, responsiveness, accountability, transparency, participation, decentralisation, rule of law, equity, consensus oriented (OPDC, 2003)

Moreover, the office of public sector development commission analysed relation between MBNQA and the royal decree on good governance 2003 shown in this table:

Table 2.2 Relation between MBNQA and the Royal Decree on Good Governance 2003 Source: Adapted from OPDC, 2003

MBNQA Categories	The Royal Decree on Good Governance 2003
Leadership	Act 8, 27-28
Strategic Planning	Act 8-9, 12-20, 22, 33-34
Customer Focus	Act 8, 24-25, 29-32, 41-42
Measurement Analyse and Knowledge Management	Act 11, 26, 39-40, 43-44
Workforce Focus	Act 11, 26-28, 33-34, 47-49
Process Management	Act 8, 10, 21, 23-25, 30-32, 35-38
Results	Act 9, 20-22, 45-46

From this table, it showed relationship between good governance and MBNQA criteria. All criteria of framework complied with good governance of the royal decree on good governance.

2.2.2 Knowledge Management in MBNQA

The MBNQA has promoted knowledge management as creating change management teams through knowledge management within organisation that change cannot be successful if the persons responsible for driving the change process do not coordinate; consequently, creating change management teams is a vital process to produce resources whereby the change managers can use as a tool to drive the intended change. Additionally, The royal decree on good governance article II stated that government agencies are to regularly develop knowledge within their organisation in a pattern of the learning organisation. Data and information are to be organised for further application to create faster, more accurate and up to date work methods. They must also promote and develop capabilities, build visions and change paradigm of the officials within their organisation, encouraging efficiency and mutual learning effecting result of performance. (MBNQA, 2010; OPDC, 2003)

The fundamental objectives of knowledge management and quality management are the same to create more organisational knowledge so that improvement can occur. Organisations maintain a set of quality management practices that support the knowledge creation processes, which should be more effective at deploying quality management. Quality frameworks like the Baldrige award increasingly recognise that the importance of knowledge as ‘information and analysis’ has recently changed to ‘measurement analysis and knowledge management’, but do not incorporated knowledge into the logic of deploying quality management practices. This knowledge perspective presents an opportunity for future refinements of the MBNQA. In addition, deploying quality from a knowledge-based view seems more consistent with the underlying philosophy of quality thought leaders (Linderman et al. 2004).

Garvin (1991) and Senge (1990) theories are used to compare with MBNQA categories and five principles of Senge’s theory showed table 2.3 as followed:

Table 2.3 Learning Organisation and MBNQA

Source adapted from Terziovski et al. (2000)

MBNQA, Garvin(1991)	Learning Organisation of Senge (1990)
Leadership	Building Shared vision
Workforce focus	Team Learning and Personal mastery
Measurement analysis and knowledge Management	Working with mental models
Process management	
Customer focus	System thinking
Organisational profiles	
Strategic planning	

From table, a leader should share planning with employees to know mission, vision and strategy of organisation, which is called 'share vision'. Workforce focus development should work as a team to learn together; 'team learning': and change traditional ways of thinking that matches with 'mental models'. In accordance with using factual information and process management by learning to be open with other people is regarded on 'mental model'. Customer focus, Organisational profile and strategic planning should observe in wholes picture, which is 'system thinking'.

This is a mutual independence between learning organisation and framework of MBNQA that Terziovski et al. (2000) reported in a theoretical framework based on Senge's principles and MBNQA criteria.

Addition, Thai government practical evaluation applied balanced scorecard (BSC) to assess four dimensions namely, quality, efficiency, capacity building and effectiveness. MBNQA has both enablers and results, which are each category and achievement, which are results so this is a principle of total quality management (TQA) for balancing effectiveness in organisation both in short term and long term. Relationship among MBNQA, BSC and Thai government practical evaluation are showed on the following:

Table 2.4 Relations during MBNQA, BSC and Thai Government Practical Evaluation Source: Adapted from OPDC (2008)

Enablers and Achievement	MBNQA Categories	Balanced Scorecard	Thai Government Practical Evaluation
Enablers	Customer Focus	Customer Perspective	Quality
	Process Management	Internal Work Process Perspective	Efficiency
	Strategic Planning	Learning and Growth Perspective	Capacity Building
	Workforce Focus		
	Measurement Analysis and Knowledge Management		
Strategic Planning			
Achievement	Results	Financial Perspective	Effectiveness

2.3 Governance

2.3.1 Definition

Governance refers to the direction and control of an organisation and the rules and procedures for making decisions (Mitchell, 2007). Effective governance should provide the structure for a company to achieve its objectives and is traditionally considered as what happens in the boardroom, but now includes processes throughout the entire organisation. Governance includes the control and oversight of compliance and an effective balance of governance is required to protect all stakeholders in an organisation (Thanalerdsopit et al. 2010). Governance is frequently assumed to be the duty of management within an organisation.

According to the OCEG (2009), effective governance should ensure the distribution of governance responsibilities across the entire organisation, but too often this is applied only to higher management. In this sense, management must ensure the appropriate tone, objective, and expectations of governance cascade through the whole

organisation (Silveira, 2012; Tarantino, 2008). So far, governance has been defined in isolation from its GRC context, but taking the GRC context into consideration, governance should emphasise the understanding of information critical for decision making and provide information to the right people at the right time and place in order to make risk aware (R) decisions. This should reduce the likelihood of unauthorised decisions and the impact of undesirable events. Effective governance should ensure organisational sustainability and become part of an organisation's DNA. In the business sector, governance in the context of GRC is far more mature than in the higher education sector. Specifically, in Thailand, governance in the context of GRC is an extremely new concept with little knowledge about how to achieve effective governance or GRC. There are numerous definitions of governance and before considering governance more specifically as it relates to higher education, these are shown in Table 2.5, along with the source and key words arising from the particular definition.

Table 2.5 The Variety of Governance Definitions from the Literature

Sources	Definitions	Key words
UNDP (2004)	“ . . . The set of values, policies and institutions by which a society manages its economic, political and social affairs through interactions among the government, civil society and private sector. It is the way a society makes and implements decisions - achieving mutual understanding, agreement and action. It comprises the mechanisms and processes for citizens and groups to articulate their interests, mediate their differences and exercise their legal rights and obligations. Its rules, institutions and practices set limits and provide incentives for individuals, organisations and firms.”	- Policies - Values - Institutions
ADB (2012)	The manner in which power is exercised in the management of a country's social and economic resources for development. Governance means the way those with power use that power.”	- Power - Social - Economic

Table 2.5 The Variety of Governance Definitions from the Literature (Continued)

Sources	Definitions	Key words
World Bank (1992)	"... the traditions and institutions by which authority in a country is exercised for the common good. This includes (i) the process by which those in authority are selected, monitored and replaced, (ii) the capacity of the government to effectively manage its resources and implement sound policies, and (iii) the respect of citizens and the state for the institutions that govern economic and social interactions among them. "	<ul style="list-style-type: none"> - Traditions - Institutions - Policies - Institutions - Economic - Social
OCEG (2009)	"...is the culture, values, mission, structure and layers of policies, processes and measures by which organisations are directed and controlled. Governance, in this context, includes but is not limited to the activities of the Board, for governance bodies at various levels throughout the organisation also play a critical role. The tone that is set, followed and communicated at the top is critical to success"	<ul style="list-style-type: none"> - Culture - Values - Mission - Structure - Layer of Policies - Tone - Top
AGA Corporate Partner Advisory Group Research (2010)	"...is the effective and ethical management of an organisation at executive levels and efforts taken to create transparency according to established processes and policies. Governance deals with areas such as strategy, goals and objectives, leadership, tone, both at the top and throughout the organisation, and transparency. Governance is the responsibility of senior executive management and focuses on creating organisational transparency by defining the mechanisms an organisation uses to ensure that its constituents follow established processes and policies. A proper governance strategy implements systems to monitor and record current business activity, takes steps to ensure compliance with agreed policies and provides for corrective action"	<ul style="list-style-type: none"> - Effective and ethical Management - Transparency - Processes - Policies - Strategy - Goals - Objectives - Leadership - Tone - Top

Table 2.5 The Variety of Governance Definitions from the Literature (Continued)

Sources	Definitions	Key words
Royal Decree On Criteria and Procedures for Good Governance, B.E.2546 (2003) (OPDC, 2003)	"... is the administration to meet the following targets (1) responsiveness; (2) result-based management;(3) effectiveness and value for money;(4) lessening unnecessary steps of work;(5) reviewing mission to meet changing situation;(6) providing convenient and favorable services;(7) regular evaluation"	- Administration - Targets - Responsiveness - Effectiveness - Value - Mission

2.3.2 Governance in Higher Education

Pusser (1999) studied governance in higher education, which presented that governance has many perspectives and policy-making structures, which are;

- Focusing on public universities administered by governments directly or through governmental agencies
- Characteristic governance of faculty and university administration
- Highlighting a wide range of organisations that are the board of trustees or governing board is the most form for institutions revolves around a semi-autonomous
- Emphasising on examples of crisis in the contemporary university and the role of governing boards under crises
- Pointing to a main set of actors who are in a unique position to facilitate or attack requests for reform and transformation

There are some reasons for the appearance and rapid expansion of study in governance in difference sides for example growth in size and complexity of

universities, increasing status of higher education as a social institution, growth in government funding and oversight of higher education, and increased social conflicts that have been reflected within higher education (Peterson and Met, 1987).

2.3.3 The Responsibility of Public Governing Boards

Clark (1983) founded the majority of governing boards try to provide a measure of oversight of organisational policies, and to serve as a negotiating force between universities and governments, markets, and societies. While there is important difference in composition, attributes, beginning, appointment procedures and roles of boards, they are mostly provided as strength, accountability, transparency and responsibility on decision-making.

In contexts of USA and Mexico, public governing boards are proposed to be democratic institutions, with a membership broadly representative of their local and national constituencies. Many instances this broad representation is part of the founding constitutional commands of the boards.

Research on higher education governance has generally been focused on four major analytical models namely: bureaucratic, collegial, political, and symbolic framework, which shown below (Pusser, 1999).

2.3.4 The Bureaucratic Framework

Weber (1978) presented the main characteristics of bureaucracy namely; a fixed division of labour with participants, a hierarchy of organisations, a set of performance rules, splitting personal from official property and rights, selection of workforce on the basis of technical qualifications, and a focused perspective on employment by participants. With this framework, organisations are clearly established lines of authority and goals. Moreover, organisation is a closed system insulated from environmental penetration, and administrative leaders have more power to analyse problems, evaluate solutions, and achieve their preferred strategies (Scott, 1992). This model goes attention to the stability of structure in higher education organisations. It is a perspective highly associated with rational leadership and decision-making and management control of existing functions and tasks.

However, many scholars argued that the bureaucratic model focuses on

authority, which were reasonable, formalised power, but ignores other types of power such as mass movements, power based on capability, and power based on appeals to emotion and response. They provided that the bureaucratic model agreements with governance structures but not with decision-making processes, and that it has difficulties in dealing with change. Also, traditional bureaucratic authority coexists in higher education organisations with a bureaucracy based in professional capability. Final differs from the traditional approach in that behaviour is created by commitment to values based in professional rather than institutional organisational norms. Harmonisation of activities is the product of a standardisation of skills, and professional standards and norms are largely reasonable outside organisations (Blau, 1973; Hardy, 1990; Mintzberg, 1991).

2.3.5 The Collegial Framework

Limitations of the bureaucratic model began the way for other views of the university as a ‘collegial framework’ (Baldrige, 1971). In this framework, organisations are viewed as collectivities with organisational members as their primary resource. It focuses sharing, democratic decision-making, human needs, and ways in which organisations can meet their objectives. Collegial perspectives also emphasise the significance of both decentralised structures and consensual decision-making processes (Hardy, 1990). However, this model provides very few insights into decision-making processes. Agreement is presented as a natural consequence of shared values and responsibilities within the institution, and conflict is virtually absent from this theoretical view.

2.3.6 The Political Framework

Baldrige et al. (1983) provided a mixed political framework model. He moderated the political nature of university governance and incorporated elements of the bureaucratic, collegial and political framework can be model. However, resulted framework provided unclear idea of what conditions make politics and conflict (Hardy, 1990). Pusser, 1999 argued that *the ‘political’ mediation and interest articulation in the Baldrige model is considerably less effective in contests of extended duration, those that are particularly complex, and those with great salience*

in broader state and national political struggles.

2.3.7 The Symbolic Framework

The symbolic governance model emphasised the growing complexity of higher education institutions and viewed the decision-making process as analogous to a “garbage can.” This model does not assume any structural arrangement of governance. Its basic assumption is that decision-making is a non-rational process in which independent streams of participants, problems, solutions, and best opportunities are linked through agreement in time. Solutions are generated on the basis of university officials’ personal priorities, and matched to actual problems. This view emphasises mainly on leadership and presidential activity (Cohen and James, 1974).

2.3.8 Cultural Models

The new governance research has focused on university culture, both at the level of the discipline, and the institution. These studies have extended the development of organisational cultural perspectives in management literature. Organisational culture is seen as a persistent patterned way of thinking about the organisation’s goals and tasks, the human relations within the organisation, the forms of coordination, and its relation to the broader environment (Bensimon, 1989).

2.3.9 Positive Theories of Higher Education

Recently, the Positive Theory of Institutions (PTI) has been applied to governance of public organisations (Horn, 1995 and Moe, 1991). This theory offered an explanation: political institutions and the process of structuring those institutions brought stability to majority rule voting, shaped the outcome of those votes, and offered a mechanism for successfully implementing the gains from control of majority rule decision-making (Moe, 1991). The Positive Theory of Institutions turned attention to public authority, suggesting that without the exercise of public authority through political institutions electoral activities would be far less effective in affecting policy.

Figure 2.2 shown a competitive university must continually fuel its quality engine with people, capacity and resources (Lombardi et al. 2002).

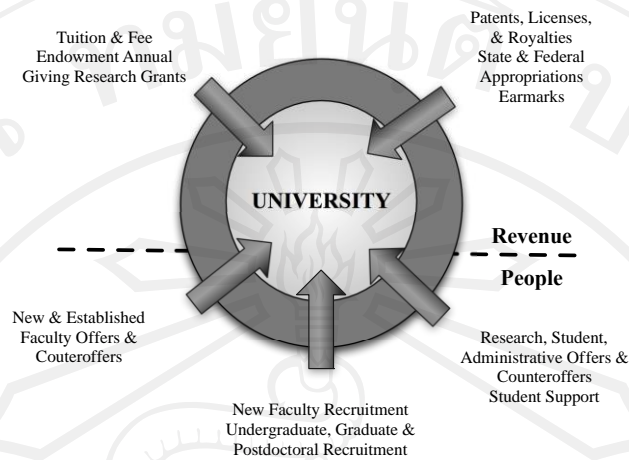


Figure 2.2 The Component of University Governance: Adapted from Lombardi et al. 2002

In higher education, there is a trend toward involving external stakeholders from industry, commerce, and civil society in institutional governance bodies, mainly as members of advisory or supervisory bodies. University governance is complicated by the development of practices over different times, by the engagement of different interests, and by the involvement of different stakeholders. There is no simple or even single formula to solve all the governance issues in contemporary university governance. This again corroborates the need for KM to effectively capture and integrate knowledge relating to governance.

2.3.10 Governance in Thai Higher Education

To meet international expectations, higher education in Thailand has to respond to the major challenges mentioned earlier in this chapter. It must achieve a level of quality that allows for international comparison and benchmarking, which in turn relies on improved governance and accountability. Furthermore, it is important that national debates take place concerning the strategic policies of higher education, which involve a wide range of stakeholders. Official legislation often defines institutional governance structures and realms of responsibility for public and government-dependent higher education organisations in every country.

The Second 15-year long range plan on higher education in Thailand, covering 2008-2022, is a high quality Thai higher education system. Such a system will lead to

the production and development of quality graduates, capable of life long work and adjustment. Knowledge and innovation are basic and critical to the country's global competitiveness and supportive of sustainable development in every part of Thailand. A quality higher education system can be achieved through mechanisms and measures of good governance.

Good governance and management would fast track the development of the Thai university system. Strengthening the governance of university councils and management of Thai universities is required. While the governance and management of renowned universities overseas could be explored and adopted, it is important to create governance compatible with Thailand's outlook and perspectives (OHEC, 2008). Critical to good governance is its link to risk management and compliance.

2.4 Risk Management

Risk Management has been significant to the theory and practice. A growing emphasis on risk budgeting has also sparked a quest for an integrated risk measurement framework. Risk management is more than the application of quantitative techniques (Klimczak, 2005). This section describes risk management and focuses on risk in higher education.

2.4.1 Definition

Risk can be described as the measure of the likelihood of something happening that will have an effect on achieving an organisation's objectives. Usually, but not exclusively, risk implies an adverse effect. Risk management can be more fully defined as the systematic application of processes and structures that enable an organisation to identify, evaluate, analyse, optimise, monitor, improve, or transfer risk while communicating risk and risk decisions to stakeholders (COSO, 2004). The overriding goal of risk management is to realise potential opportunities while managing the adverse effects of risk (OCEG, 2009). Risk is a subject worthy of entire books and research papers, but in this thesis, the focus of risk is kept to a relatively narrow remit regarding risk in Thai universities, and the relationship between risk and other aspects of GRC.

Risks can be considered as obstacles and opportunities with potential to affect how successful an organisation is. In terms of GRC, risk lies between the direction and

authority provided by governance and the requirements and boundaries of compliance.

In higher education, the concepts and definition of risk and how risk relates to uncertainty, opportunities, threats and obstacles is highlighted by the striking difference between how authorities include or exclude various types of risk outcomes. Some emphasise risk as potentially negative events that an organisation may experience as it pursues objectives, while others choose to define risk as potentially positive or negative (National Association of College and University Business Officers and the Association of Governing Boards of Universities and Colleges, 2007).

In the context of GRC, there is a need to make governance and business performance in higher education more 'risk-aware'. As with governance, there are a wide variety of risk definitions, each of which is described below in Table 2.6 in relation to the source of the definition and the key words emanating from the particular definition.

Table 2.6 The Definitions, Source and Key Words Relating to Risk in the Context of GRC

Sources	Definitions	Key Words
AGA Corporate Partner Advisory Group Research (2010)	“There are many definitions of risk that vary by specific application and situational context. One definition of risk is the possible events impacting an agency and affecting its ability to meet its mission, goals and objectives, its program performance. Another is that risk is an issue, which can be avoided or mitigated (wherein an issue is a potential problem that has to be fixed now). Risk is proportional to both the expected losses, which may be caused by an event, and the probability of the event occurring. Greater potential loss and greater likelihood of the event occurring result in a greater overall risk”	-Possible events - Affecting - Mission - Goals - Objectives - Avoid - Mitigation - Probability - Loss - Likelihood

Table 2.6 The Definitions, Source and Key Words Relating to Risk in the Context of GRC (Continued)

Sources	Definitions	Key Words
OCEG (2009)	“Risk, in this context, is the measure of the likelihood of something happening that will have an effect on achieving objectives; most importantly, but not exclusively, an adverse effect. Thus, risk management is the systematic application of processes and structures that enable an organisation to identify, evaluate, analyse, optimise, monitor, improve, or transfer risk while communicating risk and risk decisions to stakeholders. The overriding goal of risk management is to realise potential opportunities while managing adverse effects of risk”	<ul style="list-style-type: none"> - Likelihood - Effect - Objectives - Processes - Structures
COSO (2004)	“...is a process, effected by an entity’s board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives”	<ul style="list-style-type: none"> - Effect - Strategy - Objectives

2.4.2 Agency theory

This theory describes a possible difference of interest between shareholders, management and debt holders due to asymmetries in earning allocation, which can result in the firm taking too much risk or not engaging in positive net value projects (Mayers and Smith, 1987). The theory analyses the firm to include separation of ownership and control, and managerial motivation. Also, it provides support a response to gap between managerial incentives and shareholder requirements. Smith and Stulz (1985) stated the corporate risk management agency issues have been shown to influence managerial attitudes toward risk taking and protecting. Moreover,

agency theory suggests that defined policies can have important influence on firm value (Fite and Pflleiderer, 1995).

2.4.3 New Organised Economics

This theory links security with specific assets purchase (Williamson, 1987), which suggests that risk management can be important in contracts, which dilemma two sides without allowing expansion, such as large financing contract or close cooperation within a supply chain. In addition, Williamson (1998) discussed a different perspective on risk management is offered by new organised economics. The focus is moved to governance processes in organisations that guide processes. There are no practical studies of new institutional economics approach to risk management have been carried out so far, this theory provides an alternative explanation of corporate behavior. It forecasts that risk management practices may be determined by institutions or accepted practice within a market or industry. If organised factors play an important role in protecting, this should be visible in information. Firstly, there is a difference between sectors. Secondly, there is more popular in certain periods. A more actual implication of the theory is that shareholders are interested in attracting block ownership by reducing organisational risk. However, this theory also suggests that firm practices may be influenced by the ownership structure in general.

2.4.4 Stakeholder theory

Freeman (1984) developed this theory as a managerial instrument, has since evolved into a theory of the firm with high explanatory potential. Consequently, the theory provides a new insight into possible rationale for risk management. In businesses, especially, high technology and services, consumer trust in the company being able to continue offering its services in the future can substantially provide to company value. However, this value of these implicit claims is highly sensitive to expected costs of financial distress and bankruptcy. Klimczak (2005) stated that while corporate risk management practices lead to a reduction in these expected costs, company value rises. This theory focuses explicitly on balance of stakeholder requirements as the main factor of corporate policy. The most promising contribution to risk management is the extension of implicit contracts theory from employment to

other contracts, including sales and financing (Cornell and Shapiro, 1987).

2.4.5 The Committee of Sponsoring Organisations of the Treadway Commission (COSO)

COSO, 2004 disseminated the internal control, which is integrated framework to help businesses and other entities assess and enhance their internal control systems. That framework has since been incorporated into policy, rule, and regulation, and used by enterprises to better control their activities in moving toward achievement of their established objectives. COSO, 2004 gave the definition of Enterprise Risk Management (ERM) is *“a process, effected by an entity’s board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.”*

A key objective of framework is to help managements of businesses and other entities better arrangement with risk characteristic in succeeding an entity’s objectives. However, enterprise risk management (ERM) defines different things to different people. The wide variety of descriptions and meanings prevents a common understanding of enterprise risk management. An important objective is to integrate various risk management concepts into a framework in which a common definition is established and components identified. The framework is considered to adjust most viewpoints and provide a beginning point for individual entities’ assessments and enhancement of ERM, for forthcoming initiatives of rule-making forms and for education (BITa Center, 2008).

The framework of COSO ERM showed as followed:

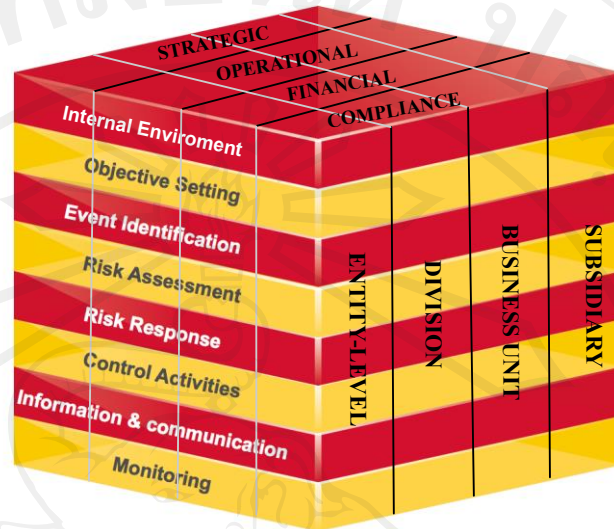


Figure 2.3 The framework of COSO ERM (COSO, 2004)

Figure 2.3 demonstrates that ERM spans decision making process of organisations both strategically and in its daily operation. Addition, ERM is integrated into the organisation's reporting structure and all connecting to their compliances.

This framework indicates that ERM is considered at the organisational level as well as throughout all levels of institutions. The eight interrelated parts represented for establishing and putting ERM into practice at the organisations. Each part is described in more detail as follows:

- Internal environment consists of the organisational history, culture, values, structure, strategy, policies and procedures. It forms the foundation to define risk approach and risk appetite in organisations.
- Objective setting is the process of determining the strategic objectives for institutions and their risk strategies. The organisation's risk tolerance and the alignment between its risk appetite and its objectives form part of the whole organisational strategy.
- Event and trend identification describe those developments either internal or external to organisations that could significantly affect its ability to

meet its strategic objectives, either positively or negatively. In order to assure that the full scope of the organisation is considered, event and trend identification is done broadly engaging a cross-section of university members.

- Risk assessment expresses the extent to which potential events and trends might affect organisational objectives. Events and trends are assessed by two criteria, which are impact and likelihood. Risk assessment can be done by qualitative and/or quantitative methods. Inherent and residual risk assessments are employed. Both positive and negative impacts of events should be examined. A catalogue of the full spectrum of risks, with impacts and likelihoods assessed, forms organisational risk register.
- Risk response is assessed for each risk event and trend by considering the organisation's risk tolerance. Typical risk responses considered for a risk event include avoidance, reduction, transferring, sharing, or acceptance.
- Control activities include the policies, procedures, reporting and initiatives performed by the institution to ensure that the desired risk response is carried out. These activities take place at all levels and functions of the organisation.
- Information and communication regarding risk management are identified, captured and communicated broadly to enable all personnel to deliver on their responsibilities.
- Monitoring refers to managing risk in the course of daily operations. Periodic evaluations where management defines the scope, methodology and frequency are done to ensure currency of information in the organisation's risk register.

In recent years, it has become increasingly evident that there is a need for a reference framework for developing and managing internal controls and appropriate levels of security in information technology (IT). The application of IT has become central to the strategy and business processes of many entities. As such, successful organisations require an appreciation for and a basic understanding of the risks and

constraints of IT at all levels within the enterprise in order to achieve effective direction and adequate controls. The control objectives for information and related technology (COBIT) provides such a control and security framework for IT (ISACA, 2013). This framework is explained in next section.

2.4.6 The Control Objectives for Information and related Technology (COBIT)

Information technology (IT) is a significant factor in succeeding success in the information economy and central to an entity's operational and financial management. As a result, enterprise governance and IT governance must not be considered separate and distinct disciplines. Successful enterprise governance emphasizes individual and group expertise and experience where it can be most productive, monitors and measures performance, and provides assurance to critical issues. IT, long considered only an enabler of an enterprise's strategy, must currently be regarded as an integral part of strategy.

Currently, organisations use information technology in businesses. To improve IT efficiency and effectiveness and helps IT know the needs of the business. Executives must understand and manage IT investments throughout to put practices in place to meet the business needs as efficiently as possible and ensure alignment of business and IT. Organisations need a strong governance model in place to align IT investments with business needs. The business process within IT has improved as a result of using IT risk framework. The next section shows an. This framework is the control objectives for information and related technology (COBIT), which is internationally accepted set of tools for information technology (IT) management created by the information systems audit and control association (ISACA), and the IT governance institute (ITGI) in 1996. (ISACA, 2012). COBIT Framework shows in Figure 2.4 below.

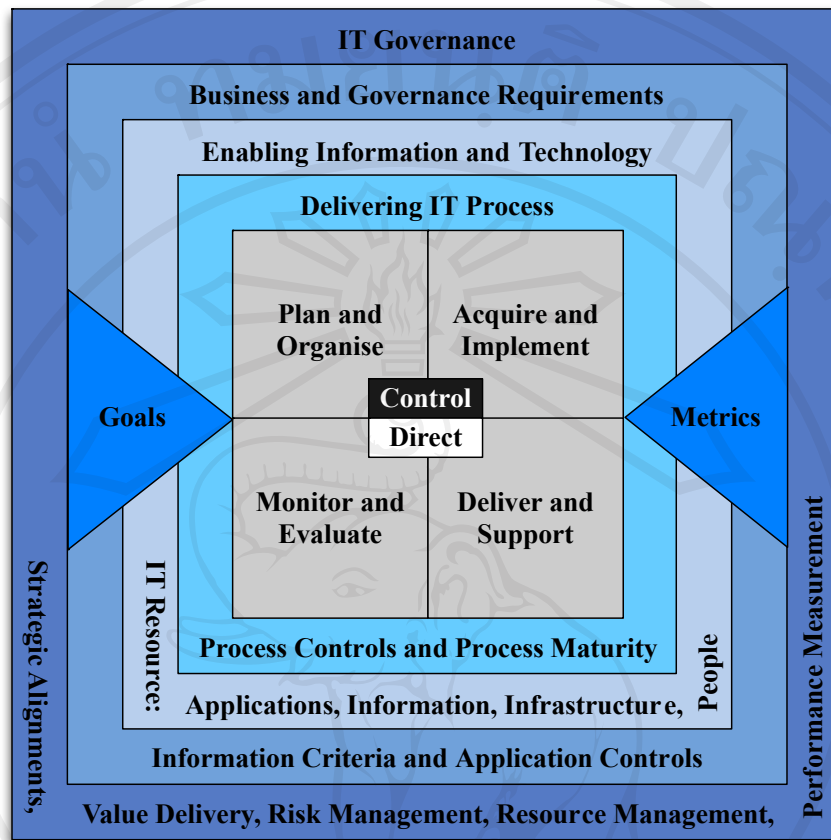


Figure 2.4 The COBIT Framework (Adapted from ISACA, 2013)

COBIT is an IT governance framework and supporting toolset that allows managers to link the gap between control requirements, technical issues and business risks. COBIT enables clear policy development and good practice for IT control throughout organisations. COBIT highlights regulatory compliance, helps organisations to increase the value achieved from IT, enables alignment and simplifies implementation of the COBIT framework. The purpose of COBIT is to provide management and business process owners with an information technology (IT) governance model that helps in delivering value from IT and understanding and managing the risks associated with IT. This framework helps link the gaps amongst business requirements, control needs and technical issues. It is a control model to meet the requirements of IT governance and ensure the integrity of information and information systems (ISACA, 2013). COBIT offers guidance for executive management to manage IT within the business, namely

- More effective tools for IT to support business objectives
- More transparent and expected full life-cycle IT costs
- More timely and reliable information from IT
- Higher quality IT services and more successful projects
- More effective management of IT-related risks

2.4.7 Controllable and Uncontrollable Risk Management in Higher Education

Controllable risks are factors that are under the direct control of the business. Most controllable risks are internal risks that arise from the business itself. It happens because at times the business is not able to conduct properly, and has to face several problems. Uncontrollable risks are factors that are not under business control. They are considered important because a business has to plan very carefully regarding everything, keeping in mind the fact that they cannot control such risks, and that these risks may have a major impact on the business. Some major uncontrollable risks such as economic conditions, political instability, changing technology.

University of Canterbury (2010) provides risk management. The risks identified will be determined and monitored by those with accountability in specific areas who will be supported by appropriate training, educative tools, and assistance from the senior policy and risk advisor. It is expected that these risks will both inform and be informed by strategic and operational plans developed at university, college, and service unit levels. Objectives of the university's risk management objectives are to:

- Find and manage existing and new risks in a planned and coordinated manner with the minimum of disruption and cost. (This approach is particularly important as university addresses the changes and opportunities that are central to Government's policies and vision for the tertiary education sector)
- Develop a 'risk aware' culture that supports universities' staff to find risks and associated opportunities and to respond to them with cost effective actions

- Be observed by stakeholders as a leading university through adopting best risk management and legal compliance practice.

2.4.8 Risk Management in Thai Higher Education

Universities should have a risk management strategy that is comprehensive in scope (covering risks that are financial, legal, industrial and moral, including risks to reputation, and that of not complying with appropriate equity, occupational health and safety and environmental standards); comprehensive in range (covering activities that are publicly funded and commercial, on shore and off shore, academic and general); systematic; and that meets the appropriate standard (Public Record Office Victoria, 2012). Risk in Thai higher education can be split into short-term everyday operational risks, and long-term risks relating to the future operating environment of the Thai Education system. Some of the key long-term risks are as follows:

- The Thai educational system is relatively underdeveloped compared to international education systems, this poses a risk from Thai students with the appropriate means increasingly deciding to study abroad. This represents a long-range risk for the Thai economy in terms of brain drain.
- The Thai education sector does not see the long-term bigger picture and this obstructs good governance.
- The Thai higher education system should prepare for the forthcoming AEC 2015 to achieve its aim of becoming a leading higher education provider in the Southeast Asian region.

The most effective way to achieve these risks is through an effective and integrated GRC capability. Thus the next section considers compliance.

2.5 Compliance

2.5.1 Definition

Compliance is the act of adhering to, and the ability to demonstrate adherence to, mandated requirements defined by laws and regulations, as well as voluntary requirements resulting from contractual obligations and internal policies (OCEG, 2009). Compliance represents laws, regulations and principles for conducting business. In the context of GRC, compliance is the act of adhering to laws and regulations, voluntary requirements resulting from contractual obligations and internal policies. In short, compliance is about identifying requirements, legal or otherwise, and taking steps to ensure that the organisation addresses all of them. As with governance and risk, there are a wide variety of compliance definitions, as summarised in Table 2.7.

Table 2.7 Definitions of Compliance, Including Sources and Key Words

Sources	Definitions	Key Words
OCEG (2009)	“The act of adhering to, and the ability to demonstrate adherence to, mandated requirements defined by laws and regulations, as well as voluntary requirements resulting from contractual obligations and internal policies”	<ul style="list-style-type: none"> - Laws - Regulations - Requirements - Policies - Obligations
AGA Corporate Partner Advisory Group Research (2010)	“The outcome of having satisfied the requirements of all applicable laws, legislation, policies, procedures, guidelines and specifications as part of an agency’s operations. Compliance is the process that records and monitors the controls (physical, logical or organisational) needed to enable compliance with legislative or industry mandates as well as internal policies”	<ul style="list-style-type: none"> - Requirements - Laws - Legislation - Policies - Procedures - Guidelines
Pricewater houseCoopers (2004)	“Laws and regulations, internal standards and policies, and expectations of key stakeholders such as customers, employees and society as a whole”	<ul style="list-style-type: none"> - Laws - Regulations - Policies - Stakeholder’s expectations

2.5.2 Compliance in Thai Higher Education

In Thailand, compliance is represented mainly through important acts related to the university, for example, the Regulation on Civil Servants in Higher Education Institution Act 2008. There have been a variety of other acts, including:

- Administration of Higher Education Institution's Internal Academic Unit Act 2007 in which public higher education institutions were able to establish internal academic units through university council approval
- Private higher education institution act 2003 (2nd revision, 2007) in which the university council was authorised to autonomously approve study programs in line with the office of higher education commission (OHEC) standards and where the university council has the authority to approve university investment or joint ventures with other legal entities to operate university-related affairs

2.6 Governance, Risk Management and Compliance (GRC)

2.6.1 Definition

According to Vincente and Da Silva (2011), an integrated GRC capability is one of the most essential requirements for today's organisations. The individual components of GRC are not in themselves new, and their importance has been known for a number of years. However, according to Shahim et al. (2012) the components are frequently thought of and executed in a fragmented way. The new aspect of GRC is the recognition that organisations must establish a united and integrated perspective of GRC, and understand that the components are inextricably linked and gather strength through synergy. The integrated view of GRC is a critical aspect of organisational sustainability (Schäfer et al. 2012) and as such, for higher education organisations, integrated GRC must become a fundamental aspect of their management. For Thai higher education, integrated GRC is critical in the face of emerging autonomy and increasing regional and global competition. The difficulty is in creating such an integrated GRC model, and thus the strength and unique benefit of this thesis is the practical development of an integrated GRC model with real application at a faculty and validation by faculty management.

Table 2.8 The Variety of GRC Definitions in the Literature with Sources and Key Words

Sources	Definitions	Key Words
PricewaterhouseCoopers (2004)	“A strategy for success through integrated Governance, Risk Management and Compliance”	<ul style="list-style-type: none"> - Success - Integrated - Governance - Risk Management - Compliances
OCEG (2009)	“A integrated approach of governance, risk management and compliance which are particularly critical to organisational success. There is significant overlap in the activities that underlie and support those broad areas, addressing them and all others that contribute to Principled Performance in an integrated fashion allows a consistent view of information and efficient application of resources that greatly enhance the power each individual process brings to the organisation”	<ul style="list-style-type: none"> - Integrated - Governance - Risk Management - Compliance - Success
AGA Corporate Partner Advisory Group Research (2010)	“...is to improve management of the organisation and enable it to effectively position itself to meet current and future challenges. Implementing a GRC program also helps an organisation streamline its business processes, eliminate activities that don't add value, and cut compliance costs by reducing duplicative controls. It can help drive better performance and improve mission and service	<ul style="list-style-type: none"> - Integrated - Risk Management - Better performance - Improve mission

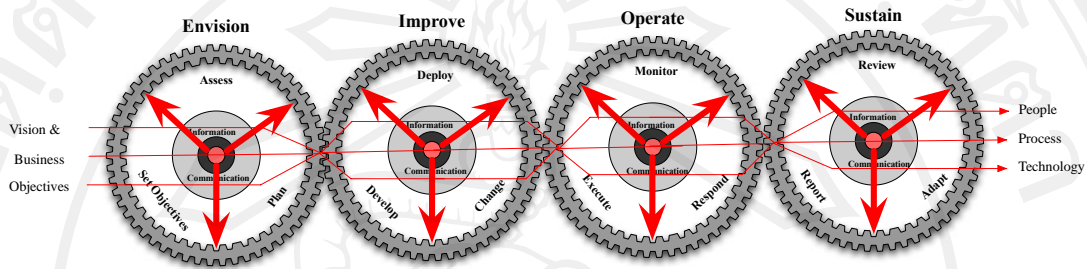
Table 2.8 The Variety of GRC Definitions in the Literature with Sources and Key Words (Continued)

Sources	Definitions	Key Words
	delivery. Organisations using GRC will have integrated controls, with no duplication of controls. They will look at risk management from the point of view of the entire organisation. Management will have the ability to understand the impact of the risks facing the organisation, and know how to mitigate or adapt to those risks”	
Humphreys (2008)	An integrated approach to GRC management that views ethic and compliance as critical business risks and safeguards of reputation “compliance as an outcome, not as a function”	<ul style="list-style-type: none"> - Integrated - Compliance - Risks
PricewaterhouseCoopers (2004)	GRC standards help to solve the insider threat problems in organisations	<ul style="list-style-type: none"> - Solve problems
Banham, R. from GRC Resource, 2007	“... is more a methodology for managing the entire spectrum of risk, GRC is more a technology platform for illuminating governance and compliance risk. ‘It’s useful to think about GRC in terms of an IT platform,’ Lam says. ‘The technology helps you centralize and organize your policies, procedures, documentation requirements, risk assessment analyses and other content [for] dashboard reporting”	<ul style="list-style-type: none"> - Information Technology - Governance - Compliances - Risks - Policies - Procedures - Requirement
Corporate Integrity from GRC Resource, 2007	“...more than a catchy acronym used by technology providers and consultants to market their solutions – it is a philosophy of business. This philosophy permeates the organisation: its oversight, its processes, its culture. Ultimately, GRC is about the integrity of the organisation”	<ul style="list-style-type: none"> - Process - Philosophy - Integrity

Table 2.8 The Variety of GRC Definitions in the Literature with Sources and Key Words (Continued)

Sources	Sources	Sources
Wikipedia (as of 01/02/2011)	“... is an increasingly recognized term that reflects a new way organisations focus on and manage an integrated approach to Governance, Risk Management and Compliance areas”	<ul style="list-style-type: none"> - Integrated - Governance - Risk Management - Compliances
Dittmar, L. from GRC Resource, 2007	“...is not really about precisely defining the term GRC, peers, and it is not about dissecting the ‘G’, the ‘R’, and the ‘C’. It is about understanding the underlying business issues that gave rise to the widespread use of the term and that are discussed by most commentators on the topic”	<ul style="list-style-type: none"> - Understanding - Governance - Risk - Compliance
Racz, N. et al., (2010)	“...is an integrated, holistic approach to organisation wide governance, risk and compliance ensuring that an organisation acts ethically correct and in accordance with its risk appetite, internal policies and external regulations through the alignment of strategy, processes, technology and people, thereby improving efficiency and effectiveness”	<ul style="list-style-type: none"> - Integrated - Governance - Risk - Compliances - Risk appetite - Internal policies - External regulations - Strategy - People - Processes - Technology

In 2004, PricewaterhouseCoopers Company released a white paper about Integrity-Driven Performance; A new Strategy for Success through Integrated Governance Risk and Compliance (GRC) Management. A best-practices roadmap of the GRC operating model as followed:



**Figure 2.5 Governance, Risk and Compliance Operating Model
(PricewaterhouseCoopers, 2004)**

There are four parts in this model, namely envision, improving, operating and sustain. First of all, sets their vision and business objective to start the model to drive envision part which has plan, set objectives and assess vision, mission in organisation. The next step is improving part that change, develop and deploy envision and then is operating part to respond, execute and monitor. The last part is to sustain, organisation needs to adapt, report and review all GRC operating in business. Every part of GRC model related from part to part by information and communication. Moreover, GRC model covers people, process and technology to align and manage model. In organisations where apply GRC in to business for meeting requirements in an effective integration of GRC, all compliances have to operate in accordance with objectives and ensuring adherence with laws and regulations, internal policies and procedures and stakeholder commitments. Addition to enterprise risk management, organisation should identify and assess risks that affect the ability to achieve objectives and determining risk response strategies and control activities. Particularly, organisational governance should set objectives, tone, policies, risk appetite and accountabilities, monitoring performance. PricewaterhouseCoopers presented its an effective integration of GRC as followed:

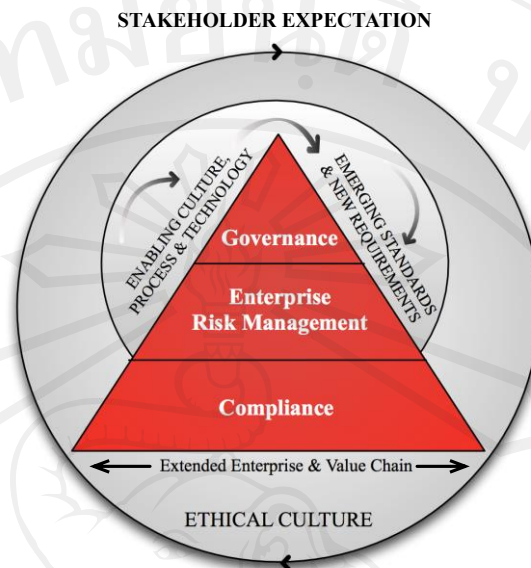


Figure 2.6 Effective Integration of GRC (PricewaterhouseCoopers, 2004)

In Thailand, Suvanasarn (2010) described good governance, risk Management and compliance (GRC) as new standards which are consolidated-single framework and expectations of the new benefit for stakeholder governance as a baseline and to the emphasis on ethics. The principles of governance in the ethics that will focus on create efficiency and effectiveness of concrete in sustainable growth and have standard operation of legal rules, including maintaining the focus on reputation, administrative or intangible assets that are more value than tangible assets. Moreover, feathers of GRC are statement of principles under the roof of corporate governance (CG) and information technology governance (ITG) management process to support

- Meeting goal achievement with good operations
- Organisation's reputation with maintenance credibility and trust
- Brand of the organisation creates sustainable added value
- The challenge of management will justify valuable and capability of management to maintain the ability with various rules of external directors following the directions and policy statements, in practice the internal standard and expectations of new shareholders.

The relation of the Committee of Sponsoring Organisation of Treadway Commission Enterprise Risk Management (COSO – ERM) and GRC is Enterprise Risk Management (ERM) provides the direction and oversight of all risks in the organisation. It is the engine that delivers core direction and processes to a Corporate Governance, Enterprise Risk and Compliance Management (GRC) framework. Good Governance can be simplified as entrenching core values to the point that they are inherent in the way you do business. The advantages include greater shareholder and investor attraction. It also avoids the distraction that comes from unpleasant surprises. Also, the ERM model can be visualized as an engine in a GRC framework, connecting people to control activities, processes to standards, opinions to analytics, and information to decision-makers. This is not an easy task without the right tool, but necessary to meet future increases to regulatory, strategic and operational regulations and mandates. In fact, these connections not made, or made carelessly can lead to terrible failure for example, financial or reputational loss. Furthermore, ERM provides the direction and oversight of all risks in the organisation. It is the engine that delivers core direction and processes to a Corporate GRC framework. Every decision and related actions are integrated with core values, delivering governance because good governance can be simplified as entrenching core values to the point that they are inherent in the way you do business. The advantages include greater shareholder and investor attraction. It also avoids the distraction that comes from unpleasant surprises. Addition, GRC Intelligence increases ERM. Insight and fact-based reports support decision-makers, so that complexity of choices and considerations are more easily reviewed. Decisions of a high quality and in a more rapid cycle enhance the organisation from board through to every successive layer of decision-makers.

For academic side, many scholars and institutions studied about governance and risk management, but only in silo part. For example the information network on education in Europe (2008) shown higher education governance in Europe with policies, structures, funding and academic staff because in 2006 the Council of Europe working party on governance in higher education emphasized that it is necessary to enlarge the autonomy of higher education organisations. European education has two governance levels, namely state and institutional level. At a state level, the models of regulatory state and supervisory state were the main threads of

the analysis. Public sources funding is the main income of educations. This model is based on the assumption that the regulations governing the operational activity of institutions are defined in details by public authorities and to ensure via mechanisms such as inspection or bureaucratic formalities. The regulatory state model is generally contrasted with that of the supervisory state or of external steering. In this model, institutions are given wide autonomy in different areas. Control is based on the definition of national objectives, which must be implemented by the institutions, the transparency of institutional policies as well as various accountability measures for institutions or their staff. External steering is also seen in the growing influence of external stakeholders in the governing bodies of institutions in particular. The supervisory state model often involves the stimulation of competition between institutions.

At institutional level in particular, three major types of governance were also used as a reference. These included the academic self-governance model; the management self-governance, whereby the management of an institution holds a strong position in defining objectives and decision-making; and finally, the entrepreneurial university model, which involves diversified funding sources and the development of partnerships with the private sector.

Gibson (2010) expressed an integrated approach to risk management in universities. He gave the definition of risk as the effect of uncertainty upon universities objectives, which can be the whole of the organisation, faculty, department, division, program, project etc. Governance in universities has four parts, namely

- Academic governance, which conducts research, teaching and learning with quality performance
- Corporate governance is composed of conformance, accountability and performance
- Social governance includes professional ethics, academic freedom, individual self governance
- Participatory governance is interrelationships with others collaboration and community

2.6.2 Integrating GRC in Thai Higher Education through the Lens of Affiliated Universities to CMU and CAMT

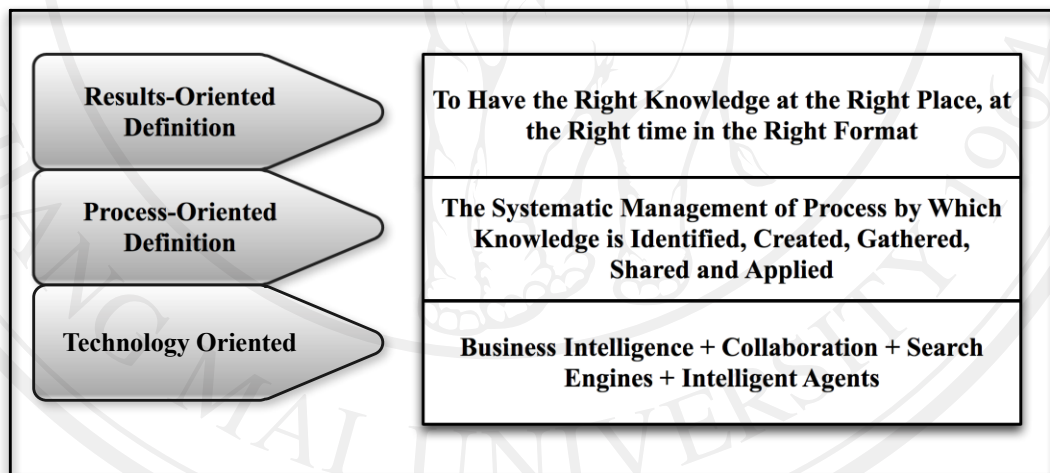
In Thailand, state enterprises applied GRC in business. In 2011, GRC will be key performance indicators to measure risk management at the top level, which is 'integrated governance, risk and compliance' (Committee of state enterprise performance evaluation, 2010). But in education sectors, there are no institutions, which use GRC in its organisation (Suvanasarn, 2010) particularly, an affiliated public universities that manage themselves under supervision of state, so that quality and transparency in management are mainly point to drive sustainable organisations. For this reason, CMU is affiliated public universities on 2008. CAMT as a volunteer to be the example to apply MBNQA in organisation by using learning organisation theory of Senge (1990). The result of first-year project showed that learning organisation is a mutual tool with PMQA. At present, CAMT uses CMU QA to be the standard in management, but CAMT has planned to apply GRC model to support PMQA to find the integrated management model (Thanalerdsopit et al. 2010; 2013). If this project is successful, CAMT may serve as a model for other universities to learn from. Moreover, CAMT will be the first institution where implements GRC especially, in education sector of Thailand (Suvanasarn, 2010).

With a focus on Thailand, Suvanasarn (2010) described GRC as a new standard, which provides a single consolidated framework to provide benefits and meet the expectations of stakeholder governance, with an emphasis on ethics. Thailand's state enterprises maintain a focus on GRC in business, and in 2011, GRC was a key performance indicator to measure risk management at the top levels of enterprise (The committee of state enterprise performance evaluation, 2010; Spanaki and Papazafeiropoulou, 2013). In contrast, within the education sector, no higher education institutions currently apply GRC in their management (Suvanasarn, 2010). This is particularly surprising given that affiliated public universities manage themselves under supervision of the state, where quality and transparency in management should be used to drive sustainable organisations.

2.7 Knowledge Management

2.7.1 Knowledge Management Background and Definitions

Knowledge management (KM) has a wide variety of definitions, for example, Rumizen (2002) describes KM as, "...the systematic process by which knowledge needed for an organisation to succeed is created, captured, shared and leveraged". Knowledge management represents the ability of an organisation to use its collective knowledge through a process of knowledge generation, sharing and exploitation enabled by technology to achieve its objectives (Cong and Pandya, 2003). Others describe KM as the conversion of tacit to explicit knowledge and the sharing of such knowledge within a particular organisation. Figure 2.7 illustrates the three common definitions of KM from the standpoint of results-oriented, process-oriented and technology oriented perspectives.



**Figure 2.7 The Three Common Definitions of KM
(Adapted from Benjamins, 2001)**

The concept of KM has continuously evolved in line with changing global developments (Leidner et al. 2006). The goal of KM is to implement a process to deliver the right knowledge to the person who needs it when they need it (Hussain et al. 2004). Technology is one of the key means to support KM (Dubois and Wilkerson, 2008), with people, processes, and technology commonly noted as the three key elements of the KM environment (Cong and Pandya, 2003).

2.7.2 Knowledge Management in Higher Education

KM can be used for a variety of purposes in Higher Education (Leidner et al. 2006). Most notably, KM can be used to gain a more comprehensive, integrative, and reflexive understanding of higher education. KM can also be used to focus on long-term organisation-wide strategies to enhance sustainability (Lubit, 2001). KM strategies and practices have come to embody the interactions between people, process and technology to promote a robust system of information sharing, while guiding organisations toward ongoing reflexivity and learning.

Using knowledge management techniques and technologies in higher education should be as ubiquitous as it has become in the corporate sector, and if undertaken effectively, it can lead to better decision-making capabilities, reduced 'product' development cycle time (e.g. curriculum development and research), improved academic and administrative services, and reduced costs (Johnstone, 2003). Colleges and universities have significant opportunities to apply knowledge management practices to support every part of their mission (Kidwell, 2000).

In Thailand's higher education system, KM has potential for application to a variety of challenges and opportunities. Governance, risk management and compliance (GRC) is a philosophy and tool with significant potential to enhance Thailand's higher education management and strategy, but the knowledge required to create an effective GRC capability is scattered and disparate, and there is a strong need to integrate such knowledge to create an integrated GRC model for the Thai public affiliated universities. The opportunities and challenges facing Thailand's higher education in the form of the public affiliated universities have potential to be solved through effective GRC, but there is a need to effectively capture knowledge related to GRC for the Thai public affiliated universities. Before considering how KM could be used to integrate such GRC knowledge and develop a working model for the Thai public affiliated universities, there is a need to discuss what is meant by an effective GRC model. GRC is an acronym for governance, risk management and compliance, and according to Tarantino (2008), the terms governance, risk, and compliance are in widespread use and with blurred meanings. Racz et al. (2010) corroborate this by explaining that there needs to be a frame of reference for integrated GRC. While the most critical aspect of GRC requires that each of the

components of governance, risk management and compliance are linked, it is most useful to explain the concept of GRC by first understanding what the individual components mean, and then consider why synergy arises from their integration. Each of the three GRC components are now discussed separately and the appropriate literature is called upon where appropriate.

2.7.3 An Interdisciplinary Approach: Knowledge Management

Knowledge management has been described as an emerging interdisciplinary approach to problem solving (Shariq, 1997). Knowledge management aims to solve complex problems that transgress disciplines and cannot be understood through a reductionist disciplinary perspective, and thus require an appropriate cross subject approach to adequately address the research problem (Newell et al., 2002). This thesis addresses a complex and highly interdisciplinary problem which transverges fields of education and management (see Chapter 1 for in-depth problem definition). However, it is methodology, not content which defines a discipline (Becher, 1987), and this thesis leverages a knowledge management perspective to effectively address the research problem and adequately traverse the fields of education and management to produce an integrated GRC model appropriate for the Thai public affiliated universities. The majority of tools, methods and approaches used in this work come from the field of knowledge management.

2.7.4 A Knowledge Management Perspective

According to Alavi and Leidner (1999) a knowledge-based perspective implies that an organisation's activities are based on its knowledge, and such knowledge is embedded in multiple aspects of the organisation including culture, people, policies, systems and documents. As such, any successful and sustainable organisation should have an effective approach to knowledge management. A knowledge management perspective is thus broad, multi-dimensional and encompasses the majority of an organisation's activities (Wiig, 1997).

In attempting to apply GRC to the Thai public affiliated universities, knowledge becomes a key aspect. Without appropriate and specific GRC knowledge, a GRC model cannot be developed. Similarly, without understanding the existing knowledge environment of Thai higher education and more specifically, the Thai public affiliated universities, attempting to design an effective GRC model would be futile. The perspective in this research thus considers and utilises knowledge as a key part of an organisation's sustainability and focuses specifically on the knowledge requirements for an effective GRC approach to sustainability. Figure 2.8 illustrates the knowledge management approach taken in this research.

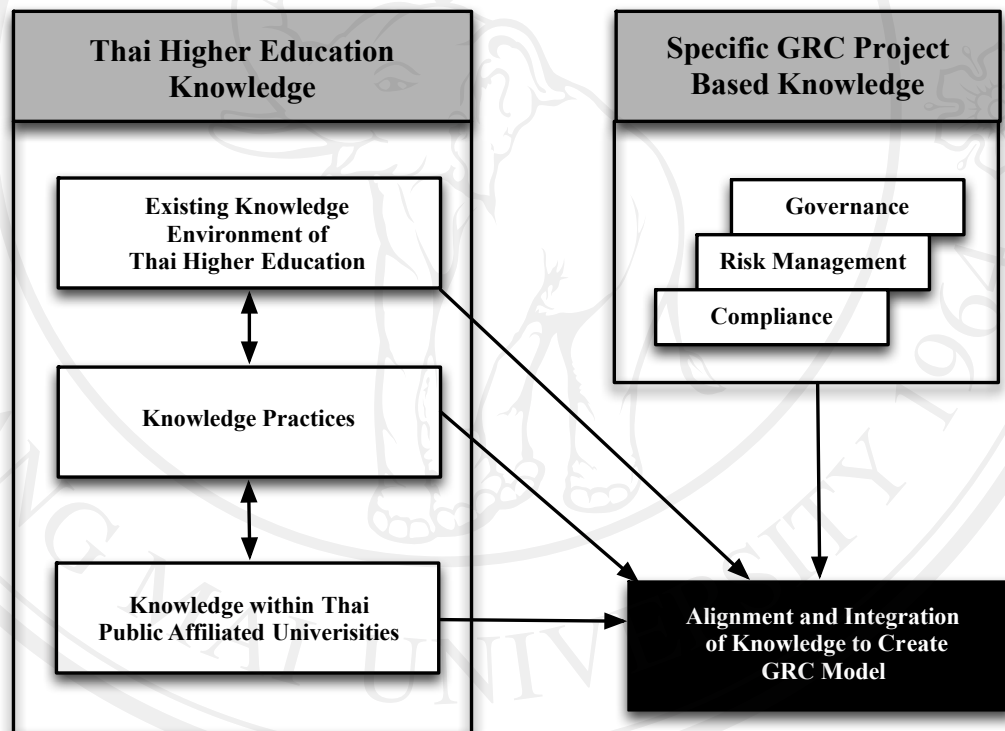


Figure 2.8 Combining the Knowledge Domains of Thai Higher Education with GRC Project-Based Knowledge Dimensions to Create an Alignment and Integration of Knowledge

Figure 2.8 indicates how knowledge is considered a central tenet of this research in the form of the knowledge existing in Thai higher education and the need to align such knowledge with specific GRC based knowledge. In Chapter 4, the thesis

focuses on capturing and structuring individual aspects of governance, risk management and compliance knowledge, and subsequently aligning the resulting GRC knowledge with the existing knowledge environment of Thai higher education as well as current knowledge practices and specific aspects of the Thai public affiliated universities. Since knowledge is a central aspect of this thesis, it is important to define it. Figure 2.9 indicates the key aspects of knowledge and the distinction between the related ideas of data, information, knowledge, knowledge use and wisdom.

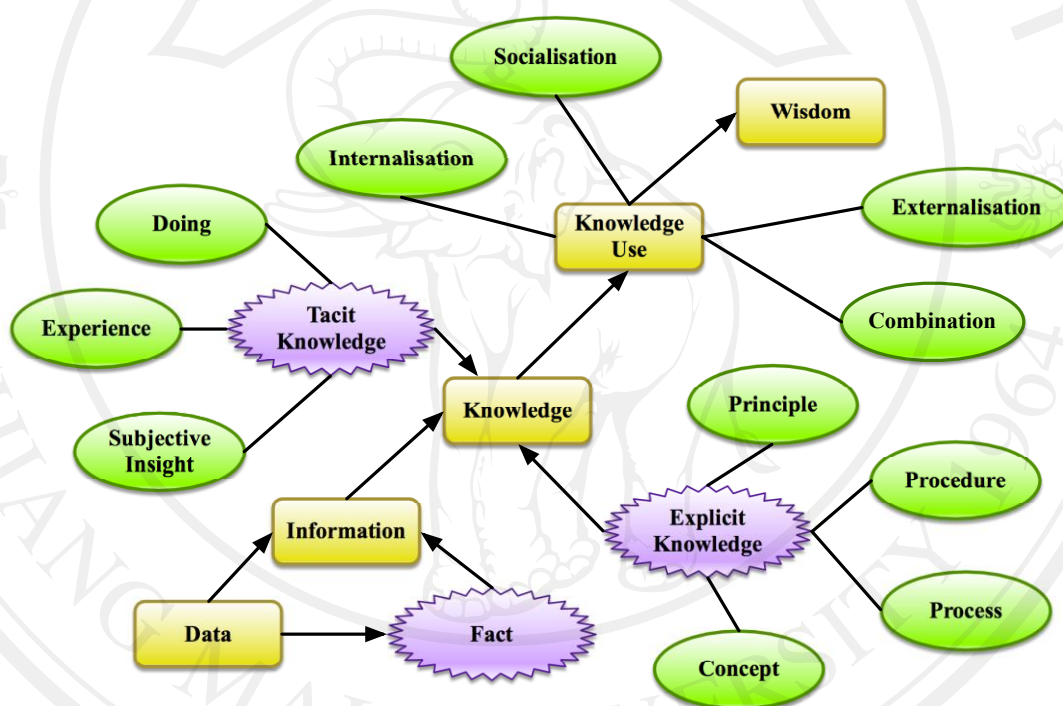


Figure 2.9 The Knowledge Management Topology
(Adapted from Cleaveland, 1982)

Figure 2.9 showed the overall perspective of the methodology. According to the meaning of knowledge, both tacit and explicit aspects are important, thus in this research, both tacit and explicit GRC knowledge was collected. Figure 3.4 shows the relationship between the three GRC components and the synergy of the knowledge management approach in this work to bring tacit and explicit GRC knowledge together to create an integrated GRC model for the Thai public affiliated universities.

Following knowledge collection, a procedure of knowledge structuring took place. It was important to structure collected knowledge to effectively create an integrated GRC model. The knowledge structuring took place using a method of knowledge mapping. Like real world geographic maps, knowledge maps aim to show knowledge, the relationship between different aspects of knowledge and make such knowledge easier to digest and visualise than the complexity of the real world. Maps and models are generalised versions of the real world, and thus knowledge maps represent generalised abstractions of knowledge from the real world. Figure 2.10 illustrates the general concept of knowledge maps.

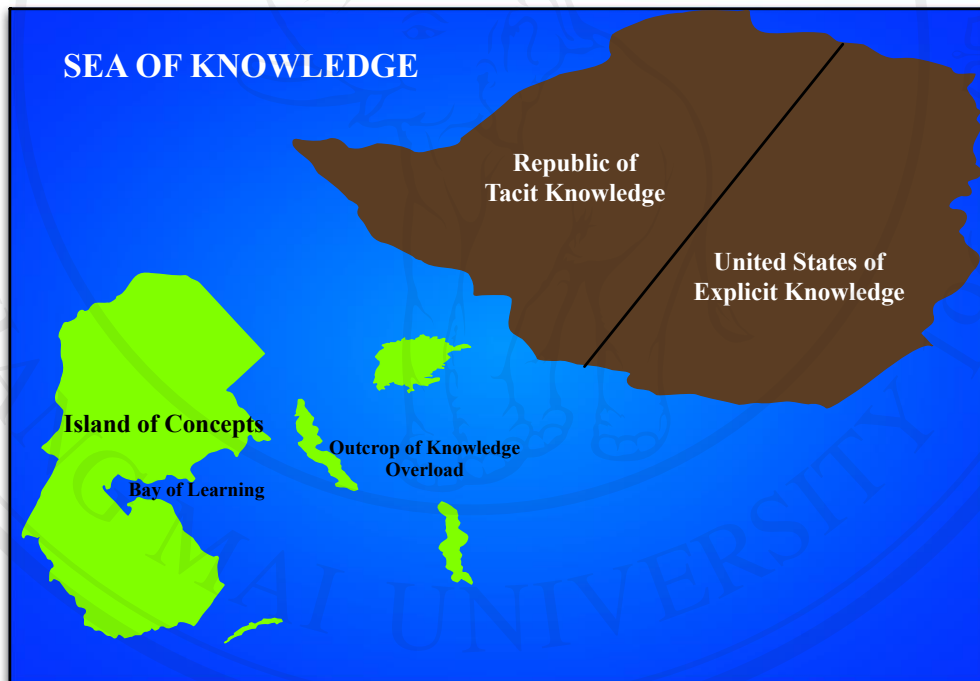


Figure 2.10 A Conceptual Representation of Knowledge Maps

In this research, the particular technique of knowledge structure mapping (KSM) was utilised. The concept of knowledge mapping and the relative advantages are shown in Figure 2.11.

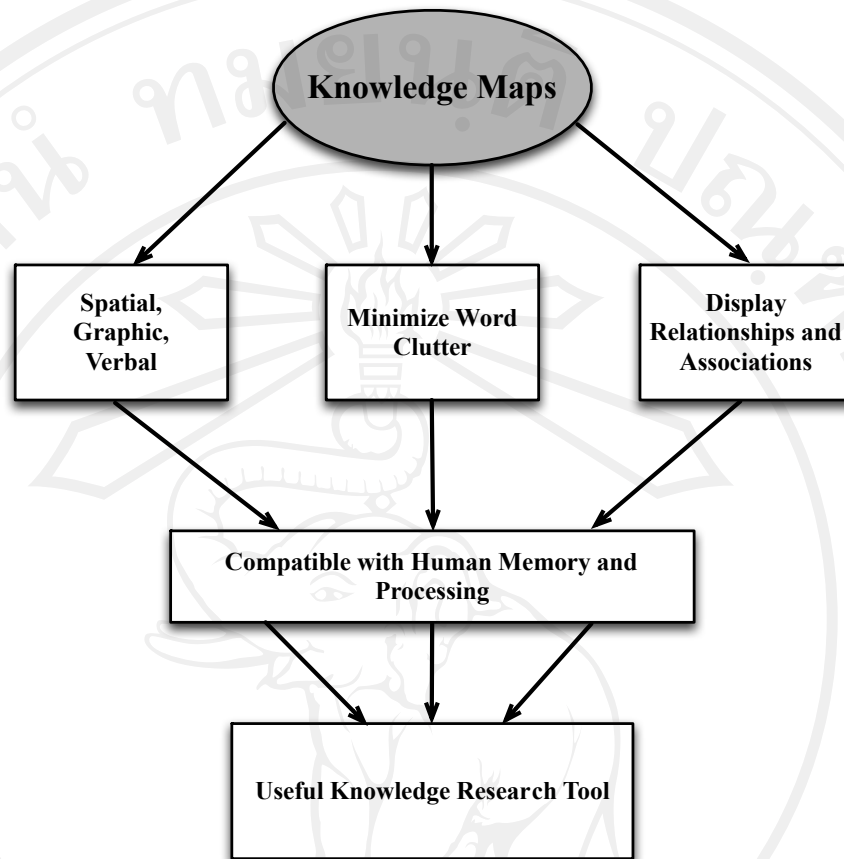


Figure 2.11 Knowledge Structure Mapping Advantages

Knowledge structure mapping creates structural knowledge maps providing a structure to collected knowledge and illustrating the relationships between this knowledge. According to Cadas (2008) knowledge structure mapping aims to make a knowledge resource visible, complete with dependencies and relationships. The key objectives of knowledge structure mapping can be summarised as follows:

- To provide a visualisation of a knowledge domain
- To provide a knowledge-focused view of emerging trends or issues
- To indicate knowledge relationships and overlaps
- To bring comprehensibility to an expert knowledge domain
- To identify and eliminate knowledge-clutter preventing effective understanding

Once expert knowledge had been collected and structured, it was used to create the GRC model for the Thai public affiliated universities.

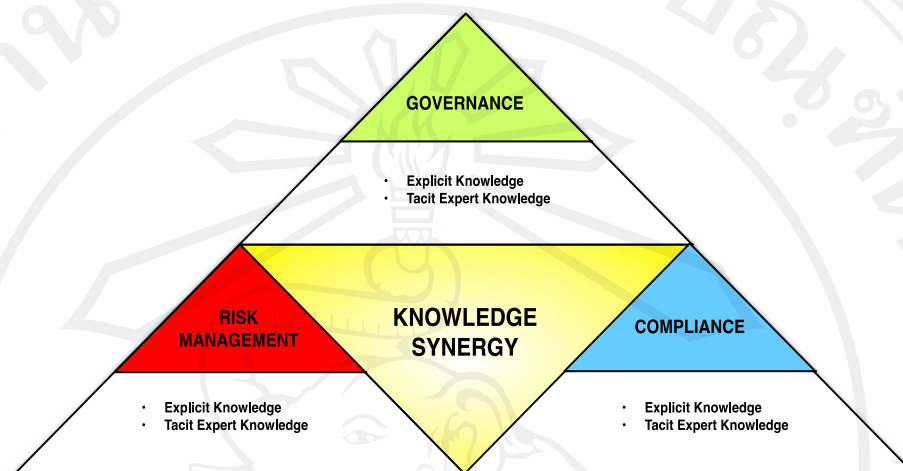


Figure 2.12 The Relationship between the Three GRC Components and the Synergy of the Knowledge Management Approach

2.8 Chapter Summary

This chapter has used GRC definitions and a literature review to investigate the potential and initialise a suitable GRC project for the public affiliated universities of Thailand. A GRC expert noted that this is the first such project within the education sector of Thailand and signalled that GRC has significant potential to add value to the management of public universities, especially affiliated universities, which have new and complex management requirements. Public affiliated universities should initialise GRC models of management parallel to global changes and in alignment with the Thai MOE's seven future scenarios. The difficulty in achieving a successful GRC capability for the Thai public affiliated universities is in integrating the disparate silos of governance, risk and compliance knowledge within Thai universities. Knowledge management is proposed as the suitable perspective from which to fill the gap in the literature to create an integrated GRC model for the Thai public affiliated universities. The next chapter explains the methodological steps and knowledge management perspective in detail.