

**PUBLIC ENTERPRISE REFORM AND ORGANIZATIONAL  
COMMITMENT: A COMPARATIVE STUDY ON THE  
ENERGY PUBLIC ENTERPRISES IN THAILAND**

**Sakda Siriphatrasophon**

**A Dissertation Submitted in Partial  
Fulfillment of the Requirements for the Degree of  
Doctor of Philosophy (Development Administration)  
School of Public Administration  
National Institute of Development Administration  
2008**

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## ABSTRACT

<b>Title of Dissertation</b>	Public Enterprise Reform and Organizational Commitment: A Comparative Study on the Energy Public Enterprises in Thailand
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<b>Degree</b>	Doctor of Philosophy (Development Administration)
<b>Year</b>	2008

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The energy sector exists within an increasingly competitive and regulated environment. These challenges are placing energy public enterprises under stress and are requiring these organizations to align themselves with new initiatives, including adjustments to both effectiveness and organizational commitment. The purpose of this dissertation is to examine the impact of public enterprise reform policy on the attributes of organizational commitments in the public energy enterprises in Thailand. It compares three structural types of public energy enterprises: totally state-owned public enterprises, partially transformed public enterprises, and totally transformed public enterprises, based on the degree of state ownership and the level of management control that exists in the public reformed organizations, by analyzing the presence of the desirable attributes of organizational commitment as perceived by employees. It also examines the causal relationship between organizational commitment and three categories of antecedents, change-related behaviors, human resources management practices, and work-related values, by using structural equation modeling (SEM).

The data for this study were drawn from two major sources - through in-depth interviews with executives and a questionnaire eliciting the perceptions of the employees of public energy enterprises. Of 589 usable questionnaires (representing a 65.44% response rate), 32.94% came from employees of totally state-owned

enterprises, 34.63% came from employees of partially transformed enterprises, and 32.43% from employees of totally transformed enterprises.

Findings indicate that there are statistically significant differences in the level of some dimensions of organizational commitment (affective commitment and normative commitment) between the three types of public energy enterprises. The lack of a structural type difference holds for only continuance commitment. Moreover, the employees perceived some organizational change-related behaviors, HRM practices, and work-related values at different levels in the public energy enterprises. The results also indicated empirical evidence concerning the causal relationship between these antecedents and organizational commitment. On the other hand, change-related behaviors showed a direct negative influence on organizational commitment, and both HRM practices and work-related values indicated a direct positive influence on them.

The study recommends a concrete effort by policy makers and management in order to improve the public enterprise's environment in order to enhance its role in development by emphasizing private management practices and by reducing change-related behaviors through encouraging performance-oriented and market-oriented approaches. In these recommendations, organizational and HRM policies are introduced to make these public enterprises more productive and attractive for public reform.

## ACKNOWLEDGEMENTS

This dissertation has been completed with the continued support, assistance, and encouragement of significant individuals and organizations. First of all, I am deeply thankful to the Doctor of Philosophy Program in Development Administration (International), National Institute of Development Administration, for the financial support and for all of the instructors in the program that made my educational achievement possible.

Furthermore, I must express sincere appreciation to the dissertation advisor and the dissertation examining committee for their assistance and support of this dissertation. Associate Professor Dr. Chindalak Vadhanasindhu, the major dissertation advisor, assisted me in formulating the study's concept and provided gentle but persuasively, guidance and encouragement throughout the process. Associate Professor Dr. Uthai Laohavichien, the Director of the Doctor of Philosophy Program in Public Administration at Ramkhamhaeng University, was the chairperson of the examining committee and acted as a sounding board for checking my ideas and ambitions, as well as provided valuable comments on the implications of the study. And, Associate Professor Dr. Pornpen Petsuksiri, a member of the examining committee, provided a thorough review of the research methodology and statistical analysis. Their constructive comments and suggestions were most helpful in refining this dissertation.

I very much appreciate all of the executives and employees of the organizations that participated and took time out of their busy schedules to complete the surveys and interviews while continuing to do their very importance work in their organizations. Their time and input enabled the research to gather valuable information and they have contributed great knowledge to the academic affairs of the country.

Finally, my doctoral study could not have been accomplished without the unconditional support from my family, who have instilled in me the value of education and the importance of having aspiration and perseverance, and have always encouraged and supported me in realizing my dreams.

Sakda Siriphatrasophon

September 2008

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## ABBREVIATIONS AND SYMBOLS

### Abbreviations

### Equivalence

<b>AC</b>	Affective Commitment
<b>APERC</b>	Asia Pacific Energy Research Center
<b>BOT</b>	Bank of Thailand
<b>CC</b>	Continuance Commitment
<b>CRB</b>	Change-related Behavior
<b>EGAT</b>	Electricity Generating Authority of Thailand
<b>EPPO</b>	Energy Policy and Planning Office
<b>GDP</b>	Gross Domestic Product
<b>HRM</b>	Hunan Resource Management Practice
<b>IEA</b>	International Energy Agency
<b>IMF</b>	International Monetary Fund
<b>IPP</b>	Independent Power Producers
<b>MEA</b>	Metropolitan Electricity Authority
<b>MOF</b>	Ministry of Finance
<b>NC</b>	Normative Commitment
<b>NEPO</b>	National Energy Policy Office
<b>NEPC</b>	Thai National Energy Policy Council
<b>NESDB</b>	National Economic and Social Development Board
<b>OC</b>	Organizational Commitment
<b>PTT</b>	PTT Public Company Limited
<b>SEPO</b>	State Enterprise Policy Office
<b>SEPC</b>	State Enterprise Policy Commission
<b>SERC</b>	State Enterprise Reform Committee
<b>SPP</b>	Small Power Producers
<b>Type I</b>	Totally state-owned or non-transformed public enterprise

<b>Type II</b>	Partially transformed public enterprise
<b>Type III</b>	Totally transformed public enterprise
<b>WRV</b>	Work-related Value

**Symbols**

<b>Btu</b>	British thermal units
<b>Ft</b>	Fuel Adjustment Charge
<b>kV</b>	Kilo Voltages

# **CHAPTER 1**

## **INTRODUCTION**

The first chapter of this research outlines the significance of the energy sector, the development of the public energy enterprises, the necessity and general impact of public enterprise reform, and the importance of understanding employees' perceptions of organizational commitment in Thailand. Furthermore, the chapter also provides the direction of the study of their organizations' organizational commitment: including the objectives, research questions, scope, benefits, and limitations of the study.

### **1.1 Statement and Significance of the Problem**

The public enterprise sector has become important instruments in nation-building in terms of carrying out the entrepreneurial functions associated with economic and social development. It is among other policy instruments used to enhance the role of the government in public intervention in the economy. Furthermore, for national development in many parts of the world, the public enterprise sector is one of the major challenges, not only for economists and financial analysts, but also for policy analysts and organization developers. This is because the new policy for public enterprise reform (such as privatization) further stimulates the efforts to create new ideas of management change and organizational development.

Playing a significant role in economic development, correspondingly, the public enterprises in Thailand have also contributed remarkably to elevating the quality of life with respect to employment and healthy living for its people. As such, any major change initiated by a new policy would more or less have important impacts on the economic as well as social stimulus. In addition, employment in this sector is higher than in any other sectors, and the labor union in the sector is stronger than any other sectors and plays a major role in management participation, especially regarding job security-related matters.

There have been currently 59 public enterprises in Thailand, classified into nine major sectors: Energy, Transport, Communication, Infrastructure, Industry, Agriculture, Commerce and Service, Social and Technology, and Banking. In 2006, the Ministry of Finance (State Enterprise Policy Office, 2006a) reported that Thai public enterprise assets totaled 5.37 trillion baht, while revenues registered at 1.83 trillion baht, contributing approximately 85 percent and 28 percent, respectively, to the country's GDP (National Economic and Social Development Board, 2007).

Energy is a fundamental factor in the national development of a nation. In developing countries growth in energy use is closely related to growth in the modern sectors: industry, transport, and urban areas. According to the International Energy Agency, total world energy use will rise from 462 quadrillion British thermal units (Btu) in 2005 to 563 quadrillion Btu in 2015 and then to 695 quadrillion Btu in 2030. Global energy demand is growing despite the sustained high world oil prices that are projected to persist over the long term (Energy Information Administration, 2008). Moreover, oil prices could rise to USD 186 a barrel and coal will remain the biggest source of electricity despite its effect on global warming (The Economic Times, 2008).

Also in Thailand, the energy sector has been one of the most important sectors, because the country depends largely on imported energy at a considerable cost each year. In 2006, the energy consumption in Thailand accounted for a value of approximately 1,488 billion Baht, which was almost 19% of the GDP, and the value of imported energy was greater than 912 billion Baht (Energy Policy and Planning Office, 2006; National Economic and Social Development Board, 2007). Nonetheless, among 59 public organizations, there are only four public enterprises in the energy sector that contribute significantly in the development of the energy industry in Thailand.

In order to cope with the rapidly increasing demand on energy in Thailand, on September 1, 1998, the Master Plan for State Enterprise Sector Reform for transforming state enterprises in Thailand received the cabinet's approval. This plan aims at reforming and privatizing key utility and infrastructure sectors in Thailand. Of these, the energy sector is one of the four key sectors that are given priority in the reform policy.

The transforming process of the public enterprise reform policy in Thailand has led to a major process change in the enterprises' internal organization, with the objective of increasing effectiveness, efficiency and shareholder's value. The process requires a sharp change in ownership, strategy, power structures and control of the organization. These changes are expected to have a profound impact, not only on the economic and financial results of the companies, but also on the human factors: individual employees, human resource management practices, and organizational culture commitment.

As described in the management and behavioral science literature, organizational commitment is considered as a key factor in the relationship between individuals and organizations. Organizational commitment refers to the degree of loyalty shown by employees towards their organization. Employees are regarded as committed to an organization if they willingly continue their association with the organization and devote considerable effort to achieving organizational goals. Higher levels of effort exerted by employees (by greater levels of organizational commitment) lead to higher levels of performance and effectiveness at both the individual and the organizational level (Mowday, 1998). Meyer and Allen (1997), moreover, point out that organizational commitment, if properly managed, could lead to beneficial consequences, such as organizational effectiveness, improved performance, and reduced turnover and absenteeism. This quest to harness potential organizational benefits has resulted in the large number of studies that focus on the nature of organizational commitment.

Organization commitment represents an important construct for organizations. From the inception of organizational science, organizational commitment among employees has been considered an important result in terms of developing the organization. It is considered an important influence on employee behavior and organizational effectiveness. Various factors related to such organizational commitment would appear to require study so that the organization could address working conditions, attract candidates, provide incentives for long-term employment of effective organizational leaders, and enhance organizational effectiveness.

Since major organizational changes are viewed as a threat to working conditions that result in resistance to change, and then decreases organizational



commitment. Organizational commitment is normally positively related to organizational performance, as well as to employee wellbeing; therefore, it is one of important factors that are involved in employees' support of change initiatives.

In addition to the impacts of reform policy implementation, the dramatically increasing in energy demand over the world has brought about a number of energy supplies. This force would increase competition for human resources in the energy sector. As a result, energy organizations have to provide priority in the policy that would keep their employees in long term.

Although a great deal has been written about organizational commitment, understanding in the matter remains unclear. Further studies require answers to some major questions, such as what and how organizational factors to be associated with and how these organizational factors can be managed to promote the development of commitment in an organization.

Human resource management practices, in principle, could have a primary role to play in these reforms and change processes. When change presents a big threat to traditional organization-employee relationships, it is important to learn what makes employees feel committed and loyal to their organization. As a consequence, the relationship between internal organizational factors (organizational commitment antecedents) and employee commitment resulting from public reform policy (changing from public to private operations) should be positive so long as good beliefs and values, policies and procedures, and appropriate interaction of management with employees can lead to organization commitment and its contribution to performance and productivity.

The exact manner in which these factors influence the development of organizational commitment is still not well understood. Empirical evidence, hence, is needed in order to unravel the development of organizational commitment. Furthermore, little research concerning the effects of reform policy on employee organizational commitment has been conducted in Thailand, whereas there have been numerous studies conducted in other countries. This study could further our understanding of employees of the organizations that are going through transformation in Thailand in a more complete way: employees that are more committed and motivated to work will perform more effectively and efficiently.

## 1.2 Objectives of the Study

Whereas the economic and financial results of the public enterprise reform policy has been widely studied and reported, the literature lacks studies on the human side of reform policy. This research thus aims at studying the differences in organizational commitment in the public enterprises of the selected sector (the energy sector) under the state enterprise reform policy.

Furthermore, this study aims at applying organization and management theories, as well as the results of the study, in order to make a contribution to public enterprise development in Thailand. Hence, this research is designed:

1) To compare the employees' organizational commitment in three structural types of public energy enterprises (totally state-owned or non-transformed enterprise, partially-transformed enterprise, and totally- transformed enterprise) under the State Enterprise Reform policy in the energy sector of Thailand.

2) To identify the variables affecting transformed organizational determinants (antecedents) leading to organizational commitment of the employees of the public energy enterprises in Thailand.

3) To provide necessary suggestions and recommendations on State Enterprise Reform policy implementation to policy makers regarding management practices for the development of the public enterprises in Thailand.

The purpose of this study is to determine the relationship between selected human resource management practices, change-related behaviors, work-related values and the organizational commitment of employee within the public energy enterprises in Thailand. The results of the study would assist management, executives, as well as policy makers to adopt the public enterprise reform policy in order to induce and maintain organizational commitment on the part of their employees.

### **1.3 Research Questions**

This study is concerned with and proposes to investigate the following questions:

1) Do the levels and types of organizational commitment of Thai public energy enterprises differ among the totally state-owned (non-transformed) enterprises, partially-transformed enterprises, and totally-transformed enterprises as perceived and viewed by their employees?

2) Do the levels and types of commitment antecedents (human resource management practices, work-related values, change-related behaviors) of Thai public energy enterprises differ among their organizational structural types as perceived and viewed by their employees?

3) To what extent do the commitment antecedents (change-related behaviors, human resource management practices, and work-related values) influence the organizational commitment of the public energy enterprises in Thailand?

### **1.4 Scope of the Study**

Employees working in three public enterprises in Thailand's energy sector (classified by the Ministry of Finance) are the target population of this study. The three public enterprises in this study are:

- 1) Metropolitan Electricity Authority (MEA);
- 2) Electricity Generating Authority of Thailand (EGAT); and
- 3) PTT Public Company Limited (PTT).

The other public energy organizations, i.e. the Provincial Electricity Authority (PEA), and affiliated organizations and/or subsidiaries of all public energy enterprises, etc., are excluded from the research.

This study focuses on internal organizational factors (antecedents), as a consequence of the State Enterprise Reform policy and affecting the organizational commitment of the employees of three public energy enterprises (MEA, EGAT, and PTT) in Thailand.

Quantitative and qualitative methods have been employed in this study in order to ascertain the perceptions of managers and staff that are officially employed by the enterprises as permanent employees regarding the reform of the organizations. Nonetheless, quantitative research is mainly used in this study. The research results are deduced from the influence of the characteristics of the samples in the study.

### **1.5 Limitations of the Study**

The findings of this study should be viewed with a few limitations in mind. The self-reported method, because of the limitations of data collection, is used to measure the constructs. It is well-understood that this measure might cause common method variance challenges. Furthermore, employing other research methods, such as direct observation, was not permitted by the target public energy enterprises in this study. Hence, there was no way to separate method variance from true score variance.

Conducting a single survey may produce data of limited utility. The data may merely reflect a moment in time and may be affected by recent events or incidents. For instance, the subjects in this study may have hesitated to provide accurate information because they may fear reprisal from higher authorities for negative responses, despite the researcher's assurance of confidentiality. Moreover, the participants may not have understood the importance of and reason for this research, and therefore may not have given sufficient time or thought to their responses.

### **1.6 Benefits of the Study**

The benefits of this study are apparent both in terms of its contributions to the literature as well as to the administration of the public enterprises in the energy sector in Thailand.

This study will serve to advance our understanding of organizational commitment in order to enable organizations to implement appropriate corporate strategies (including human resources management) that encourage the correct types of commitment among employees and more importantly to enable organizations to

understand what their employees think and feel during the reform process. It will also provide additional theoretical knowledge concerning organizational behavior and organizational performance.

The findings of this study are expected to assist public policy makers and executives involved in the deregulation policies, particularly regarding the State Enterprise Reform policy in Thailand, as an input to any new reform decisions and implementations. As stated in the proceeding section, furthermore, the results of this study could assist management as well as executives in adopting the public enterprise reform policy in order to induce and maintain organizational commitment from their employees in organizations. As a consequence, this study will contribute to the energy sector from several theoretical and managerial points of view.

First, the study will enhance our understanding of the antecedents of organizational commitment within the transformation process of the public energy enterprises. The results of this study will reveal the importance and impact of change-related factors, human resource management practices, and work-related values in order to understand employees' perceptions of commitment in organizations. An enhanced understanding of the antecedents of organizational commitment will translate into an increased understanding of the organizational factors fundamental to work-related outcomes, such as organizational commitment.

Second, despite the volume of empirical research that has investigated organizational commitment, most of the past literature has mainly focused on affective commitment. Therefore, research that broadens the application of the commitment concept in organizations beyond affective commitment has the potential to capture an array of previously unexamined effects. The results of this study may contribute to the literature concerning all attributes of organizational commitment, which include affective commitment, continuance commitment, and normative commitment. Because of their differences in nature and characteristics, in addition, these attributes of organizational commitment are very important for predicting employees' behaviors in organizations.

Third, as previously described, employees in energy organizations are particularly significant because they are the core of national energy and service, and their attitudes and behaviors are essential to the quality of service and the success of

energy organizations. Empirical evidence suggests that organizational commitment is important as a basic requirement for the effective functioning of organizations. This implies the need for research concerning how employees perceive the characteristics of their organizations. Nonetheless, there has been little evidence of theoretical or empirical research in the energy sector concerning the antecedents and consequences of organizational commitment, which have important impacts on employees' attitudes and behaviors. Moreover, there has also been little evidence of empirical research in the energy sector that compares organizational commitment at different stages of transformed organizations. Therefore, this study conducts in the context of energy organizations in three different stages of the transformation process.

Finally, the current study is designed to provide energy sector policy-makers and managers with insights into the formation of employees' commitment perceptions, and with insights into how to manage employees using organizational commitment to draw positive attitudinal and behavioral reactions from them. The present study will assist policy makers and managers in better understanding how to retain valuable employees, increase employee commitment, and thus increase organizational effectiveness.

## 1.7 Definitions of Terms

For the purpose of this study, some basic definitions are needed to help in understanding the contents of this dissertation. The following definitions of key terms and concepts are employed.

**Public reform policy** is the government policy that refers to the process of transferring and restructuring the public enterprise as a privately owned (partially or totally) and/or privately managed organization by using private management techniques and a market orientation.

**Deregulation** is the process of relaxing previous tight regulatory control over either state or private monopolies, and opting for more light-handed, performance-oriented regulations to control both natural monopoly and competitive elements of the sector.

**Privatization** is defined as all of the measures that increase private sector participation in sectors where government enterprises presently operate. It includes divestiture of state-owned enterprises or assets (ownership transfer), concession arrangements, joint ventures, management contracts, leasing, outsourcing, contracting of services, deregulation that increases competition, creation of needed regulatory bodies, and the introduction of new competitors.

**Restructuring** is the process of changing the structure of the electric power industry, from one of guaranteed monopoly over service territories to one where the competitive elements of the sector are exposed to open competition, preferably across the entire economy.

**Corporatization** is the process of turning a state trading department into a state-owned enterprise that is forced to operate under normal business laws and to compete on a level playing field with private firms. This may or may not lead to privatization.

**The State Enterprise Reform (the Reform policy)** refers to the master plan for state enterprise sector reform approved by the Royal Thai Government on September 1, 1998. The Master Plan aims at reforming and privatizing key utility and infrastructure sectors in Thailand.

**Public enterprise or state-owned enterprise** is a productive entity which is owned and/or controlled wholly or partly by public authorities regardless of the percentage of ownership and whose output is marketed.

**Private Organizations** refer to any organizations that are privately owned or controlled by private person(s). Private sector firms can be divided into three types: owner-managed firms, public joint stock companies and 'hybrid' organizations. Included in the owner-managed category are sole traders, partnerships and private or family-owned companies.

**Public energy enterprises** refer to the public energy enterprises operating in Thailand and that are of interest in this study. These organizations include PTT Public Company Limited (PTT), Generating Electricity Authority of Thailand (EGAT), and Metropolitan Electricity Authority (MEA).

**Totally state-owned or non-transformed public enterprises (Organization type I)** are the enterprises that are owned totally or completely by public authorities,

and they are subject to more bureaucratic control through the imposition of civil service regulations and/or following public budgetary regulations in preparing their budget.

**Partially-transformed public enterprises (Organization type II)** are the enterprises in which the public authorities retain absolute ownership but attempt to restructure the enterprise through the sale of some assets or through the development of joint ventures.

**Totally-transformed public enterprises (Organization type III)** are those that are owned partly by public authority and that have full autonomy to operate like a private organization with minimal control by public authority.

**Organizational commitment** is the employee's psychological attachment to the organization. It can be defined as the relative strength of an employee's attachment or involvement with the organization where he or she is employed.

**Affective commitment** is defined as the employee's positive emotional attachment to, identification with, and involvement in the organization. It represents the employee's emotional attachment to the organization and implies that employees retain membership because they want to do so.

**Continuance commitment** is defined as a commitment based on the costs that employees associate with leaving the organization, such as loss of income. Employees that have continuance commitment retain membership because they have to do so.

**Normative commitment** is defined as employees' feelings of obligation to remain with an organization. This type of commitment is viewed as the belief about one's responsibility to the organization. Employees retain membership because they feel they ought to do so.

**Change-related behaviors** are behaviors that employees employ to respond to the changes in their organizations. In this study, change-related behaviors refer to specific antecedent variables (reform policy perception, change-related communications, job insecurity, role conflict, and role ambiguity) that might affect organizational commitment in organizations.

**Human resource management practices** refer to the set of practices that organizations use to ensure that they have an effective workforce in place to meet operational needs. In this study, human resource management practices refer to



specific antecedent variables, for example the payment system, reward & recognition, power & empowerment, supervisor effectiveness, work cooperation, training & development, employee participation, and job satisfaction, that might affect organizational commitment in organizations.

**Work related-values** are the values and beliefs according to which employees feel an obligation to remain with an organization. In broad terms, work-related values could refer to the organizational culture that communicates the underlying values and beliefs of an organization and its employees. In this study, work-related values refer to specific antecedent variables—performance oriented, people oriented, organization oriented, and external oriented—that might affect organizational commitment in organizations.

## **1.8 Organization of the Dissertation**

This dissertation is organized into six chapters. The first chapter outlines the significance and statement of the problem, the research objectives, the study scopes, the research limitations and benefits, as well as some key definitions employed in this dissertation.

Chapter Two provides the significances of the public enterprises, the establishment of the public energy enterprises in Thailand, the development of the public reform policy in Thailand as well as the impacts of the reform policy on the public energy enterprises. Then, the current status of the policy adoption and implementation is presented.

Chapter Three reviews the theoretical framework of the concept of organizational commitment, commitment antecedents, organizational changes as resulting from public reform policy, and the relationship between organizational changes and organizational commitments. Finally, the conceptual framework and hypotheses of the study are proposed.

Chapter Four describes the research methodology, which includes population and sample, operational definitions and measurements, validity and reliability of the measure, and data collection, processing, and analysis.

Chapter Five presents the survey samples and their demographic characteristics as well as the research findings from the statistical analysis in the study.

The final chapter, Chapter Six, focuses on the conclusions from the research, recommendations and implications for future research.

## **CHAPTER 2**

### **PUBLIC ENTERPRISE REFORM AND PUBLIC ENERGY ENTERPRISES IN THAILAND**

The chapter presents the significance and evolution of the public energy enterprises, as well as the developments of the reform policy, in Thailand. The first section describes the definitions, significance, and overall limitations of the public enterprises in Thailand. Since the energy sector is a critical one in Thailand, the second section then presents the establishment of the public energy enterprises. Section three deals with the formation of the public reform policy in Thailand as well as identifies the determinant factors that force public reform policy implementation. In this section, the developments of the public energy reform policy implementation are also reviewed.

#### **2.1 Public Enterprises in Thailand**

This section provides how this study defines the concepts of public enterprises, the significance of the public enterprise sector in Thailand, and the general problems or limitations surrounding the public enterprises.

##### **2.1.1 Defining the Public Enterprises**

In the literature, scholars have defined public enterprise in such a way as to differentiate it from other social and economic organizations. The purpose of these definitions is to distinguish the public enterprise from a purely private and/or a purely public organization. The term of public enterprise includes a wide spectrum of public institutions – ranging from purely regulatory organizations at one end to purely commercial ones at the other (Fernandes, 1986).

By considering the types of organizational ownership, organizations can be classified into two major categories of public and private organizations:

**Public Organizations** refer to any organizations that are majority owned by the government or state. In the public sector, a number of organizational forms are identifiable: central and local government, trading funds, and other agencies, including quasi-non-governmental organizations and public corporations (Ott and Hartley, 1996).

**Private Organizations** refer to any organizations that are privately owned or controlled by private person(s). Private sector firms can be divided into three types: owner-managed firms, public joint stock companies and 'hybrid' organizations. Included in the owner-managed category are sole traders, partnerships and private or family-owned companies (Ott and Hartley, 1996).

In order to establish a comprehensive definition, Jones (1984) defined public enterprises so as to differentiate them from private organizations and traditional bureaucratic agencies. The public enterprise, therefore, is a productive entity which is owned and/or controlled wholly or partly by public authorities regardless of the percentage of ownership and whose output is marketed.

By definition, furthermore, a public reform denotes reducing the role of states while increasing that of the private sector in activities or asset ownership. In this context, both ownership and management control are the main factors of the public enterprise reform. Hence, the various results of public enterprise reforms reflect different degrees of state and private roles in ownership and management control in organizations.

Considering the principles of public enterprise reform, Yi (2006) classified four types of public enterprises as a result of an implementation of the public enterprise reform policy. Based on the degree of state and private involvement in the ownership and management control of public enterprise production and assets, the four types of public enterprise reform include full-privatization, semi-privatization, rationalization, and no privatization.

For the purpose of this research study, the researcher defined public enterprises in terms of public enterprise reform by adapting the basic concepts of Jones (1984) and Yi (2006). This study therefore classified public energy enterprises into three major categories: totally state-owned or non-transformed public enterprises, partially transformed public enterprises, and totally transformed public enterprises.

**A totally state-owned or non-transformed public enterprise** is the enterprise which is owned totally or completely by public authorities, and it is subject to more bureaucratic control by imposing civil service regulations and/or by following public budgetary regulations in preparing its budget. In this type of organization, a public enterprise sustains its status without transferring ownership of the firm, although some management measures might be implemented to secure economic efficiency.

**A partially-transformed public enterprise** is the enterprise in which the public authorities retain absolute ownership but attempt to restructure the enterprise through sale of some assets or the development of joint ventures. Those restructuring processes do not change the legal ownership status of a public enterprise and its resources. In joint venture organizations, a market/private operation assumes a major role in controlling the company and its resources, while the state sustains the legal ownership of the public enterprise and its resources.

**A totally-transformed public enterprise** is one that is owned partly by public authority and has full autonomy to operate like a private organization with minimal control by the public authority. In this type of public organization, the public sector entities, including the federal government, not only hold a significant portion of the public enterprise's equity directly but also continue to influence the decision-making process.

### **2.1.2 Significance of Public Enterprises**

The current expenditure of the Thai public enterprise sector is now larger than that of the Thai government itself. During the period of 2001-2004, the public enterprises' capital expenditures increased from 286.57 to 347.75 billion Baht, equivalent to 167 percent and 265 percent, respectively, of the government's capital expenditure in the same period. Obviously, these figures signify that the capital investment of the public enterprise sector has expanded much faster than that of the government. Moreover, the figures reflect the increasing need of infrastructure expansion with the growth of the Thai economy. The greater part of this capital investment was incurred by utilities (State Enterprise Policy Office, 2005).

The revenue-generating capacity of the public enterprise sector has increased as well. During the period of 2001-2004, revenue increased from 1,247 to 1,796

billion Baht, with a cumulative annual growth rate (CAGR) of 9.6 percent. The assets grew from 4,416 to 5,387 billion Baht while debt also increased, but at a lower rate from 3,469 to 4,132 billion Baht (Ministry of Finance, 2005).

In fiscal year 2006, the state enterprises' retained income totaled 217.9 million Baht, up by 52.2 percent from the previous fiscal year. This was partly due to (1) delayed income remittance by certain state enterprises which did not privatize on schedule, and (2) delayed disbursement capital set aside for constructing new plants in certain state enterprises due to insufficient project information.

In the meantime, the state enterprises' capital expenditure in 2006 totaled 206.2 billion Baht, down by 11.5 percent from the previous fiscal year. The decrease in capital expenditure disbursement was caused by the delay in mega project investment, particularly, investment in the mass transit system. Moreover, certain state enterprises postponed their investment pending more details on policy regarding counter trade and barter trade policies (Bank of Thailand, 2007). In terms of employment, the public sector is a large employer in the country, the total employees of which in 2004 were 271,383. However, the employment level of the public enterprise sector did not increase noticeably (State Enterprise Policy Office, 2006b).

### **2.1.3 Limitations of Public Enterprises**

At the macro level, the Thai public enterprises are somehow unable to generate the resources to finance their operation and expansion and service their debts. This poor performance requires not only subsidies (e.g., government transfers, domestic private savings, foreign borrowing, etc.), but evidence presented by the World Bank (1994) also shows that it can damage economic growth in a variety of ways. For instance:

- 1) The inefficiency of individual public enterprises would be expected and that in turn limits growth. This implies that the larger the public enterprise the lower the growth rates;
- 2) The financial burden of the public enterprises operating in social services, such as basic health and education, continued increases in expenditure.
- 3) The more extensive the government ownership in an economy, the greater difficulty in facing preserve incentives and contradictory demand; and

4) The growth of public enterprise deficit impact on fiscal stability and inflation.

At the micro level, the major issue concerns organizational change to prepare the public enterprises for the new environment. This organizational change assigns the public enterprises with new rules and regulations as well as new roles and responsibilities. These include increasing the number of customer needs and the variety of those needs; the wealth of shareholders and stakeholders; the wellbeing of staff and unions; the emerging threats of competitors, etc. All these new predicted environments require a new style of management and operations (World Bank, 1994).

As a result, the current government perceived the necessity of change to enhance the performance of the public enterprises in Thailand.

## **2.2 Establishment of Public Energy Enterprises in Thailand**

### **2.2.1 Energy Situation in Thailand**

In 2004, Thailand's total energy consumption was estimated at 3.4 quadrillion British thermal units, representing about 0.7 percent of total world energy consumption (Library of Congress, 2007). Thailand is a net importer of oil and natural gas. In 2004, net energy imports accounted for 60 percent of energy supply in the economy, down significantly from 96 percent in 1980 (Asia Pacific Energy Research Center, 2007).

In 2005, daily oil consumption of 838,000 barrels per day exceeded domestic production of 306,000 barrels per day. In 2004 natural gas consumption of 1,055 billion cubic feet exceeded domestic production of 790 billion cubic feet. Also in 2004, estimated coal consumption of 30.4 million short tons exceeded coal production of 22.1 million short tons. As of January 2007, proven oil reserves totaled 290 million barrels, and proven natural gas reserves were 14.8 trillion cubic feet. In 2003 recoverable coal reserves totaled 1,492.5 million short tons (Library of Congress, 2007).

In 2005, Thailand consumed about 127 billion kilowatt-hours of electricity. Electricity consumption rose by 4.7 percent in 2006 to 133 billion kilowatt-hours. According to the state electricity utility, the Electricity Generating Authority of

Thailand, power consumption by residential consumers has been increasing because of more favorable rates given to residential customers in the industry and business sectors. Thailand's state-controlled electric utility and petroleum monopolies are undergoing restructuring (Electricity Generating Authority of Thailand, 2007).

### **2.2.2 Energy Management in Thailand**

The Thai National Energy Policy Council (NEPC) is the main organization that has the core duty to determine and regulate energy policy, including the government policy on electricity matters and matters concerning petroleum. The NEPC, which was established by the National Energy Policy Council Act 1992, includes the Prime Minister as Chairman of the Council, the Deputy Prime Minister, the Minister of Defense, the Minister of Finance, the Minister of Foreign Affairs, the Minister of Agriculture and Agricultural Cooperatives, the Minister of Transportation, the Minister of Commerce, the Minister of Interior, the Minister of Energy, the Minister of Industry, and other ministers, including other civil servants and the Permanent Secretary of the Ministry of Industry, the Secretary-General of the State Council, and the Secretary-General of the National Economic and Cabinet. The Social Development Board (NESDB) includes the Director of the Budget Bureau, and the Director-General of the Department of Development of Renewable Energy and Energy Conservation. According to this organization, the decision of the NEPC can be seen as the national policy on energy, and will be implemented when the cabinet agrees with the decision (Health Systems Research Institute, 2006).

In connection with the dramatically expected rise in energy demand, the National Energy Policy Council (NEPC), chaired by the Prime Minister, has been heavily involved with the deregulation by reforming the public enterprises in the energy sector in Thailand. The council has closely adhered to the objectives of providing efficient and sufficient energy service to meet the nation-wide requirements, entailing a high degree of reliability at a reasonable price.

On October 1, 2002, the Thai government established six new ministries, including the Ministry of Energy and the Ministry of Natural Resources and Environment. There are consequential changes in the government offices responsible for the regulation of the energy sector.



The Ministry of Energy was established in October 2002 following the Law on Adjustment of Ministries, Sub-Ministries, and Departments 2002 and is responsible for the determination of policy on energy in consultation with the NEPC. The ministry has the authority to develop plans, provide suggestions, and oversee implementation in line with policy, as determined by the energy policy provision.

Prior to October 1, 2002, the NEPO (National Energy Policy Office) was the government authority charged with the supervision of all state enterprises involved in energy matters. The NEPO was responsible for developing policy guidelines and regulations to govern the private electric power sector. Since October 1, 2002, the NEPO has been under the Ministry of Energy, under the name of the Energy Policy and Planning Office (EPPO). The EPPO is the core organization that is responsible for devising the criteria, regulations, and rules for the domestic energy industry. The Director of the Office is appointed by the cabinet (Energy Policy and Planning Office, 2007).

The Committee for Energy Policy Administration was established by the NEPO in 2002. It has the authority and duty to give recommendations on policy for administration, planning, and development of criteria on energy matters. It also provides opinions on plans and energy projects, and fixes prices and rates for the Petroleum Fund, including proposing policies and criteria for the pricing of energy and regulating the changes of electricity rates under the automatic FT adjustment mechanism.

### **2.2.3 Establishments of the Public Energy Enterprises**

The background to the energy sector in Thailand is that it had long been dominated by four state monopolies: PTT (PTT Public Company Limited), EGAT (Electricity Generating Authority of Thailand), MEA (Metropolitan Electricity Authority) and PEA (Provincial Electricity Authority) as well as their subsidiary/affiliated companies.

The PTT was a state enterprise in the form of a statutory corporation without shares owned by the state under the administration of the Ministry of Industry (PTT is currently under the Ministry of Energy). Its property was exempt from execution. It possessed statutory powers to survey and use land for pipeline rights-of-way, and the

right to acquire land for refineries, gas separation plants and other facilities by expropriation.

Whereas the EGAT has been primarily responsible for power generation and transmission, the MEA and PEA share the responsibility of distributing electricity to Bangkok and the provinces, respectively. EGAT reports to the Office of the Prime Minister, while MEA and PEA report to the Ministry of Interior.

#### 2.2.3.1 PTT Public Company Limited

PTT Public Company Limited (PTT) is the state enterprise responsible for oil and gas, which was established in 1978 under the Petroleum Authority of Thailand Act, B.E. 2521 (1978). The PTT sponsored the first pipeline to bring offshore gas onshore, owns the entire present natural gas processing and pipeline network, and is the exclusive purchaser of natural gas in Thailand. It was established in October 2001 following corporatization of the Petroleum Authority of Thailand. The PTT was listed on the Stock Market of Thailand (SET) and the Ministry of Finance remains its main shareholder, with a direct holding of 52%.

#### Corporate Businesses

The principal activity of the PTT is the operation of the petroleum business. The corporate also engages in the exploration and production of petroleum, the operation of natural gas, international trading of crude oil, condensate, petroleum and petrochemical products and investment in the domestic refining and petrochemical industries.

The PTT is an integrated oil and gas company with a dominant position in the energy industry (except in electricity generation) with the following components:

- 1) PTT gas: Monopoly over natural gas supply, transmission and distribution, with over 2,600 km of pipeline, and five gas separation plants.
- 2) PTT oil: Largest oil retailer in Thailand, with over 1,300 gas stations, two marine terminals, 20 depots and 16 aviation depots.

Its main subsidiary, the 61% owned PTT Exploration and Production Public Company Limited (PTTEP), engages in petroleum exploration and production (E&P) activities.

Table 2.1 below provides financial highlights of the PTT from 2004 until the end of March 2008.

**Table 2.1** Historical Financial Highlights of the PTT

		<b>2006</b>	<b>2007</b>
Assets	(million Baht)	751,453	892,351
Liabilities	(million Baht)	397,131	493,699
Equity	(million Baht)	287,832	361,496
Paid-up capital	(million Baht)	28,049	28,173
Revenues	(million Baht)	1,265,476	1,553,053
Net profit	(million Baht)	95,260	97,803
Return on assets (%)	(%)	22.95	20.13
Return on equity	(%)	36.73	30.12
Net profit margin	(%)	7.53	6.3

**Source:** Stock Exchange of Thailand, 2008.

#### Human Resources Management

According to the 2008 Annual Report (PTT, 2008), the PTT has been committed to the development of a human resource management system compatible with technological advancement and industry standards. It not only promotes both conscientious merit and business competence for its employees, but also encourages them to take part actively in public service activities. It is indeed on employees that PTT focuses in its development toward a high-performance organization to compete better and to respond to prevailing circumstances.

The PTT employee headcount as of December 31, 2007 stood at 3,544 (including PTT subsidiaries to affiliates.) Throughout the year, the PTT carefully managed its manpower to align with its operation with a focus on business groups with significant expansion and investment plans in line with national economic development. Manpower is being supplemented to the most prominent core groups:

the Exploration & Production and Gas Business Group, the Petrochemicals and Refining Business Group, and the International Trading Group. These core groups have been formulated into human resource management plans in order to suit business circumstances. The PTT has undertaken a plan to develop the potential of its employees and to streamline its business procedures.

#### 2.2.3.2 Electricity Generating Authority of Thailand

The Electricity Generating Authority of Thailand (EGAT) is the state enterprise that is the primary electricity generator. It was established by the Electricity Generating Authority of Thailand Act (1967) and, until 1992, had a monopoly on electricity generation in Thailand.

##### Corporate Business

EGAT is the state-owned utility company involved in construction, operation and maintenance of power plants and transmission networks. EGAT presently builds, owns and operates several types and sizes of power plants across the country, with a combined installed capacity of 15,035.80 MW, accounting for about 59 percent of the country's 25,646.99 MW generating capacity. EGAT also purchases electric power from private power companies and neighboring countries (Electricity Generating Authority of Thailand, 2008b).

In addition to EGAT's generating facilities, it also purchases power from Independent Power Producers (IPPs), Small Power Producers (SPPs) and hydro power plants in neighboring countries. EGAT's generation systems include combined cycle thermal power plants and hydro power plants nationwide. Its transmission system (grid) consists of long-distance high voltage transmission lines and substations that transmit power from both EGAT's and privately owned power plants to distributing authorities for distribution to industrial and residential clients.

**Independent Power Producers (IPPs)** are privately owned and sizeable power producers with an installed capacity of more than 150 MW. IPPs use commercially a variety of available fossil fuel sources, such as natural gas, coal (both indigenous and imported) and oil-emulsion. Nuclear power is excluded.

**Small Power Producers (SPPs)** are privately owned small power producers including those using renewable energy sources.

The installed capacity of an SPP ranges between 120-150 MW. Sources of fuel used among SPPs are biogases, paddy husks, wood chips, natural gas, coal, oil, black liquor, municipal waste, and waste gas from production processes. Biogas and natural gas are the most common types of fuel used among SPPs.

Highlights on the financial status of EGAT are shown in Table 2.2.

**Table 2.2** Historical Financial Highlights of EGAT

	2005	2006
<b>Operating Performance (million Baht)</b>		
Revenues from sales and services	279,094.04	350,060.82
Income from sales and services	4,779.58	42,712.23
Gains on foreign exchange	1,754.14	3,873.17
Interest expenses	7,222.11	6,868.87
Net incomes (net loss)	(173.13)	40,633.66
<b>Financial Status (million Baht)</b>		
Total assets	396,721.44	411,828.40
Land, buildings and equipment - net	268,359.37	255,857.37
Total liabilities	203,015.72	192,098.60
Long-term debts	113,981.34	103,529.44
Equity and minority interest	193,705.72	219,729.80
<b>Financial Ratios</b>		
Ratio of gross profit to net sales	(%) 7.71	15.35
Ratio of net profit to net sales	(%) (0.06)	11.61
Ratio of return on assets	(%) (0.04)	10.05
Debt to equity ratio	(Times) 1.05	0.87
Time interest earned	(Times) 1.24	7.07

**Source:** Electricity Generating Authority of Thailand, 2008a.

#### Human Resources Management

EGAT believes that employees are human capital that is critical to the organization's successful operation. Treating individual employees with respect and giving them equal opportunity will boost their confidence and courage to express their opinions and creativity and build up their self-esteem in discharging their respective duties at full potential. EGAT people are encouraged to foster five desired corporate

brand personality traits: Professional, Caring, Flexible, Innovative and Trustworthy - the traits commonly known among EGAT people as “PC-FIT.”

Recognizing its employees as the most valuable resources to drive EGAT toward its goal of becoming a world-class organization, EGAT gives high values to human resource management, focusing on empowerment through shared responsibilities in the workplace. A more proactive working style has been adopted to enhance creativity and motivation among EGAT people, while developing leadership skills and a new culture of teamwork that will lead EGAT toward a learning organization.

In 2006, EGAT continuously developed its human resource management, focusing on the improvement of its performance-based management system and competency-based management system, its performance appraisal system based on competency, the development of new generation management teams, and the development of learning organizations on human resource management and development as well as other knowledge related to EGAT’s operations.

Business and operational plans have also been developed to drive EGAT toward its five strategic directions, including: strengthening core businesses, seeking opportunities for business growth, building EGAT into a premium organization, becoming a caring organization for society and the environment, and becoming more dynamic and adaptable to change.

#### 2.2.3.3 Metropolitan Electricity Authority

The Metropolitan Electricity Authority (MEA) is a state enterprise under the Ministry of the Interior. It was established on August 1, 1958 under the Metropolitan Electricity Authority Act 1958 by combining the Bangkok Electricity Authority (Wat Liab) with the Samsen Royal Electricity Authority under the Department of Public Works and naming the new organization "The Metropolitan Electricity Authority." This organization was responsible for generating and selling electrical power in the metropolitan area until 1961, when the generating plant was transferred to Yanhee Electricity Authority, which was later renamed the Electricity Generating Authority of Thailand. Since then MEA has only been in charge of the distribution of electrical power.

MEA is presently providing power supply distribution service to customers in the area of Bangkok as well as Samutprakarn and Nonthaburi provinces. The total area of provided service is 3,192 square kilometers, and the service is subdivided into eighteen district offices. MEA has had experience in electrical equipment maintenance for over 40 years and has personnel with knowledge and capability as well as modern tools and technology. Customers receiving electricity from MEA include a total of more than 2.5 million accounts: high-voltage (69, 115 kV) customers approximately 70 accounts, medium-voltage (12, 24 kV) customers approximately 11,466 accounts and the remainder low-voltage (416/230 V) customers (Metropolitan Electricity Authority, 2008b). Highlights on the financial status of MEA are shown in Table 2.3.

#### Human Resources Management

According to the 2007 Annual Report (Metropolitan Electricity Authority, 2008a), the human resources management in MEA has been redesigned. The organization aims to specific HR strategies focusing on the development of the HRM system, employee core competency and a knowledge-based system with an objective of facilitating business operations and promoting business development. In 2007, the total number of employees amounted to 8,816 persons, a decrease of 2 percent from the previous year. This was a relative decline due to retirement and separation.

**Table 2.3** Historical Financial Highlights of MEA

	<b>2006</b>	<b>2007</b>
<b>Operating Performance (million Baht)</b>		
Sales on electricity energy	131,700.24	130,211.33
Total revenues	135,578.04	134,039.40
Purchase of electric energy	114,377.70	112,701.16
Total expenses	129,244.63	127,747.67
Net incomes (net loss)	6,333.41	6,291.73
<b>Financial Status (million Baht)</b>		
Total assets	114,750.95	121,073.06
Fixed assets	77,384.69	82,023.89
Total liabilities	66,199.37	68,748.75
Long-term liabilities	28,381.30	28,405.20
Equity	48,551.58	52,324.31
<b>Financial Ratios</b>		
Operating income margin	(%) 4.68	4.57
Return on equity ratio	(%) 8.73	9.50
Return on assets ratio	(%) 3.74	3.90
Total debt to equity ratio	(Times) 1.31	1.36
Debt service coverage ratio	(Times) 1.46	1.77

**Source:** Metropolitan Electricity Authority, 2008a.

#### 2.2.3.4 Provincial Electricity Authority

The Provincial Electricity Authority (PEA) is a government enterprise under the Ministry of Interior, which was established under the 1960 Act by the Royal Decree executed on the 20th of September 1960, then was published in the Government Gazette on 27th September 1960. The authority's responsibility is primarily concerned with the generation, distribution, sales and provision of electric energy services to the business and industrial sectors, as well as to the general public in provincial areas, except Bangkok, Nonthaburi and Samut Prakran provinces.

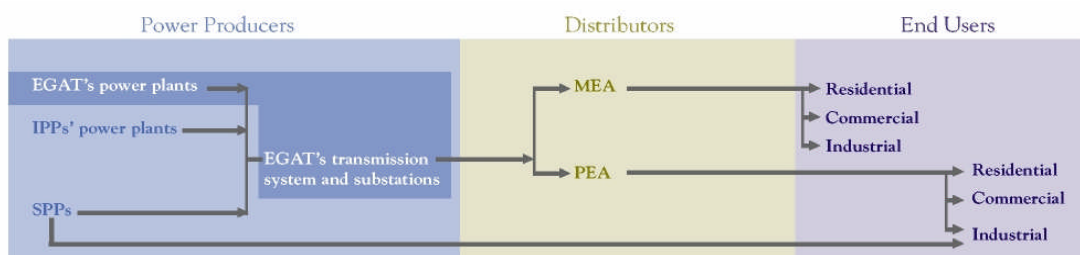
Similar to MEA, the PEA is another state owned utility company under the Ministry of Interior, selling and distributing electricity. The difference is the coverage area. The PEA covers all other parts of the country except those already served by MEA. The total area served by the PEA is 510,000 square kilometers, accounting for 99% of the country's total area.



The PEA provides electricity to residential and industrial users in provincial areas excluding Bangkok, Samutprakarn and Nonthaburi. The PEA operates from its head office in Bangkok, which oversees four other regional offices. The head office is responsible for the policies, planning, and procurement of equipment for other regional offices. Each regional office oversees three district offices. Therefore, there are twelve district offices controlled by the PEA. According to the PEA, the organization is planning to utilize its existing distribution network as a platform to enter other information technology and telecom sectors, capitalizing on the network which is already distributing power to about 99% of all electricity users (Kitisorn Sookpradist, 2006).

In accordance with the government's plan and policy on privatization, the PEA has drawn up an action plan for restructuring the organization and then has applied the Quality Standard Management System to its total work areas, which was certified by ISO 9002 in 2001. All of these solutions create satisfaction and confidence on the part of customers in using the PEA's electricity and service (Provincial Electricity Authority, 2008).

All in all, while EGAT is the state enterprise responsible for electricity generation, MEA and the PEA are the state enterprises responsible for electricity distribution. This power system structure in Thailand is shown in Figure 2.1.



**Figure 2.1** The National Power System Structure

**Source:** Electricity Generating Authority of Thailand, 2007.

In order to obtain a clear picture of the overall participation of all players in the energy sector, Table 2.4 summarizes the principal entities, both public and private organizations, involved in the energy sector in Thailand.

**Table 2.4** Summary of Principal Entities in the Energy Sector

<b>Entities</b>	<b>Roles</b>
<b>Power</b>	
EGAT	Electricity generation and transmission
MEA	Electricity distribution in greater Bangkok and sub-urban areas
PEA	Electricity distribution in the rest of Thailand
IPPs – Private	Electricity generation
SPPs – Private	Electricity generation
<b>Natural Gas</b>	
PTT Gas	Gas exploration and development (through PTTEP), transmission and trading
Private Gas Entities	Gas exploration and production
<b>Oil</b>	
PTT Oil	Oil import, refining (through its affiliate and investments) and distribution
Private Petroleum	Petroleum refining and distribution

### **2.3 The State Enterprise Reform Policy in Thailand**

It is obvious that both global competition and the public reform regime affect the Thai economy. Hence, the government of Thailand has been trying to create competitive environments within the economy. In order to encourage competition in the market, plans for deregulation in various business areas of state-owned or state-monopoly enterprises have been set up. While the concept of deregulation is well-known by many interest groups, an understanding of the characteristics associated with implementation success is lacking. Such an understanding is very important for Thailand since the public reform policy is one of the strategic vehicles for national development.

### 2.3.1 Definitions of Key Terms in the Public Reform

There are some technical terms that are associated with the process of government reform policy. In order to facilitate a better understanding of the Public Reform policy, the key terms used in this study are defined as follows:

**Deregulation** is the process of relaxing previous tight regulatory control over either state or private monopolies, and opting for more light-handed, performance-oriented regulations to control both natural monopoly and the competitive elements of the sector (Asia Pacific Energy Research Center, 2000).

**Privatization** is defined as all of the measures that increase private sector participation in sectors where government enterprises presently operate. It includes divestiture of state owned enterprises or assets (ownership transfer), concession arrangements, joint ventures, management contracts, leasing, outsourcing, contracting of services, deregulation which increases competition, creation of needed regulatory bodies, and introduction of new competitors (Royal Thai Government, 1998).

**Restructuring** is the process of changing the structure of the electric power industry from one of guaranteed monopoly over service territories to one where the competitive elements of the sector are exposed to open competition, preferably across the entire economy (Asia Pacific Energy Research Center, 2000).

**Corporatization** is the process of turning a state trading department into a State-Owned Enterprise that is forced to operate under normal business laws and compete on a level playing field with private firms. This may or may not lead to privatization (Asia Pacific Energy Research Center, 2000).

### 2.3.2 Emerging of the State Enterprise Reform Policy in Thailand

As early as 1960, the Thai Government expressed the intention to reform poorly operated and inefficient state-owned enterprises. More significant attempts to reform began in 1986 when the National Economic and Social Development Board (NESDB) reviewed the performance of financially distressed state-owned enterprises in Thailand and offered suggestions for improving their performance, which resulted in the formation of a policy focused on three elements (Dempsey, 2000).

**First**, state enterprises were to mobilize capital from domestic sources by increasing their equity base and offering a portion of this for public subscription—essentially transferring ownership from the state to private Thai citizens.

**Second**, state enterprises would operate on the "cost-plus" principle: prices would be fixed at a certain level above cost, guaranteeing a profit margin that would be used to finance further investment, implying that state subsidies would be phased out and demands on the fiscal reduced.

**Third**, private sector companies were to be used as contractors more often by state enterprises, which would decrease the number of employees on the state payroll.

These efforts resulted in the sale or lease of a few state-owned enterprises to the private sector, notably the Paper Mill Organization, the Preserved Food Organization, and the Off Shore Mining Organization. However, most of the larger state enterprises scheduled for partial or total privatization saw little change, partly due to resistance from workers afraid of losing their jobs. A more likely reason for the slow pace of privatization, however, is that, because Thailand's GDP was growing faster than any country in the world between 1985 and 1995, the need to reform the state-owned enterprises seemed less pressing. Ministers and directors of state enterprises were willing to turn a blind eye to the inefficiencies of the state-owned enterprises as long as the country as a whole kept booming. The incentive for reform was simply lacking during these years.

When the financial crisis struck in 1997, critics of the inefficient and bloated state enterprises became more vocal, both in parliament and in the media. Although past governments espoused the need to reform, as of July 2, 1997, Thailand still had fifty-nine state-owned enterprises in a variety of sectors, with over 320,000 employees and assets valued at nearly four trillion baht. Many of these enterprises were operating at a loss, and when the government turned to the International Monetary Fund (IMF) for its bailout, that agency conditioned its loan on the Thai government's commitment to deregulation and privatization. Hence, although domestic government sentiment had long recognized the need to reform the state sector, it took IMF prescriptions to expedite the process, ultimately resulting in the 1998 Master Plan for Master Plan for State Enterprise Sector Reform (the 'Master Plan').

Dempsey (2000) reported the early move to privatize in Thailand, indicating that “prior to the introduction of the Master Plan in 1998, the reform efforts in Thailand suffered lengthy delays, in part due to the complex legal requirements that had to be met to increase private sector participation in state-owned enterprises. The Act on Permitting the Private Sector to Participate in or Operate State Business (B.E. 2535) (Joint Venture Act) required any state-owned enterprise looking to raise revenue from private actors to obtain prior approval from a number of government agencies before bids could be solicited or equity stakes offered. Although one agency might have approved a proposal on its economic merits, another reviewing agency could decline the same proposal without having to provide any significant justification for doing so, at which point the process would terminate. Even if approved, officials from various ministries reviewed all bids from the private sector and, once a bid was awarded, yet another government oversight committee closely supervised the private actor's participation in the state-owned enterprises. Shifting through the bureaucratic red-tape often took far longer to complete than the private actors were willing to wait, as economic conditions sometimes changed by the time the proposal was finally approved. Not surprisingly, cabinet ministers often handed concessions and public works contracts to wealthy political allies whose support would be critical to their reelection. Overall, the legal and regulatory hurdles served as a means of blocking and delaying the involvement of the private sector in the operation of state enterprises.”

The Master Plan overcame the bureaucratic morass by simplifying the proposal review process and clearly designating the proper government agency or ministry from whom ultimate approval was needed. The government created the State Enterprise Reform Committee (SERC) and a secretariat within the Ministry of Finance to supervise all state-owned enterprise requests to reform. At the same time, the Master Plan outlined a variety of methods by which privatization could occur. The more common routes envisioned would be for state-owned enterprises to offer equity stakes through public offerings, to form joint ventures with private partners, to engage in trade sales, or to issue debt for equity swaps. Other strategies in the Plan included having state-owned enterprises enter licensing or contract agreements, as well as deregulating state owned monopolies to spur competition. Overall, the Plan grouped

state enterprises to be transformed into four infrastructure sectors—energy, telecommunications, transportation, and tap water—and a fifth category that included thirty-one other "miscellaneous" enterprises. The Master Plan included sector-specific details to simplify the process. The economic efficiency rationale for privatization mentioned in the Master plan suggests that Thailand would be best suited to a mass reformation of many of its state-owned enterprises (Royal Thai Government, 1998).

The Master Plan also states that any state-owned enterprise whose functions are not vital to the Thai government's operations or national security can be considered for corporatisation. Once that hurdle has been passed, divestiture, equity sale, or other privatization proposals was developed in accordance with the new State Enterprise Corporatisation Law in 1999. SERC then reviews the proposal for its cost-effectiveness and compliance with the new labor law, which went into effect in August 1998. Once SERC deems it an appropriate strategy, the proposal is submitted to the cabinet for ultimate approval. Finally, once the Cabinet has approved a privatization plan, the government commits to enforce all contracts and to ensure that the privatized company will function in a competitive setting. Moreover, the new Freedom of Information Act allows all proposals and government evaluations to be made public, thereby reducing the likelihood of overt corruption.

### **2.3.3 Rationale on the Adoption of the Reform Policy in Thailand**

As expected by the Thai government, the public enterprise reform policy would be used to stimulate economic growth by attracting foreign and domestic investment and know-how and improve efficiency in those sectors of the economy constrained by monopolistic or oligopolistic practices. A general objective of the policy is to improve the quality and availability of services at reasonable prices. Moreover, some might be of interest in social welfare.

#### **2.3.3.1 Benefits of the Reform Policy**

According to the Office of State Enterprise and Government Securities (Royal Thai Government, 1998), the public enterprise reform policy in Thailand can benefit the country in the following three dimensions:

Structural benefits:

- 1) Economic efficiency of the sector will be enhanced from decreasing investment and production costs, in effect, directly introducing tariff reduction;
- 2) Quality of services in terms of service availability, adequacy, accessibility, and integrity will be improved based on productivity and quality assurance improvements; and
- 3) Attracting innovative management and technology will boost sector prospect.

Financial benefits:

- 1) Attracting financial management and sources of funds will help leverage and expand the capital market and also increase investment in new value added service projects; and
- 2) The financial burden of the government will be reduced to subsidize large size projects.

Social benefits:

- 1) Public services penetration will leverage quality of life, equality of the citizens and other welfare benefits; and
- 2) Generate more employment due to market development.

### 2.3.3.2 Forces Driving the Public Reform Policy in Thailand

In Thailand, a variety of forces driving the government's public reform policy can be identified as follows:

Internal politic influences

Internal politic influences prevented the privatization of most state-owned enterprises in Thailand until international financial organizations exerted strong pressures on the government to move ahead as part of the structural adjustment program required to overcome the financial crisis of the late 1990s. In 1993 the World Bank recommended that Thailand, as part of its overall structural adjustment policies, should sell 24 state-owned enterprises that were involved in manufacturing or commercial activities. By the mid-1990s, the problem became more urgent as the government struggled to cope with the impacts of economic recession and to find the financial resources to pay off the more than 25 billion US dollars in debt incurred

from subsidizing or bailing out weak financial institutions. The total value of state-owned enterprises was estimated to be more than three times the amount of the public debt (Mertens, 1998).

#### IMF adjustment requirements

Among the strongest pressures on the government to take privatization seriously was the necessity to sign a letter of intent with the International Monetary Fund (IMF) in 1997. The IMF provided a loan of USD 4 billion through a stand-by arrangement for the macroeconomic adjustment program and arranged for member governments and associated international financial institutions for an additional USD12.7 billion in loans. The credit lines could be used only to finance balance-of-payments gaps and rebuild international reserves (Royal Thai Government, 1997). In return, the government agreed to restructure the country's financial sector, enact new fiscal policies to meet IMF commitments, modify monetary and exchange-rate policies, and maintain a social safety net to protect the poorest segments of society.

#### Financial condition of public enterprises

The IMF letter of intent also committed the government to achieve an overall financial balance in public enterprises through price adjustments that reflected the true cost of providing goods and services, including investment and replacement costs, and to keep public-sector wage increases in line with inflation and private-sector rates. The financial position of public enterprises would have to be improved to achieve a fiscal surplus of 1% of the GDP for fiscal years 1997-1998 (Royal Thai Government, 1997). As part of the multi-billion dollar loan package, the IMF insisted that the government prepare a serious plan for corporatizing public enterprises, beginning with those in energy, telecommunications, transportation, and public-utility sectors.

#### Government's action

According to Rondinelli and Vuthiphong Priebjirivat (2000), economic conditions in Thailand in late 1997 continued to deteriorate. The government of Thailand signed a second IMF letter of intent. Lower earnings by public enterprises required the government to cut the investment programs of the electricity and water authorities, the telecommunication company, and Thai Airways, and to raise prices for public goods and services except for those groups covered by the social safety net



program. The worsening of economic problems at the end of 1997 and the beginning of 1998 kept pressures on the government to restructure the financial sector, raise revenues to meet growing public debts, and restructure the state enterprise sector.

#### Pressures from economic recession

The pressures from economic recession to the reform policy can also be evident in the works of Rondinelli and Vuthiphong Priebjrivat (2000). These authors reported that “in February 1998, the government issued a third letter of intent that outlined the financial-reform measures that had been taken and further modified the schedule for meeting initial commitments in light of continuing economic stagnation. Earlier in 1997, the government suspended the operations of 56 financial institutions that subsequently went into bankruptcy. The assets were taken over by the government and scheduled for auctioning. The government also strengthened the capital base of remaining domestic financial institutions through re-capitalization, management restructuring, and modified loan loss provisioning.”

### **2.3.4 The Master Plan for State Enterprise Sector Reform**

The Master Plan for State Enterprise Sector Reform (the ‘Master Plan’) updates and expands the Privatization Master Plan approved by the State Enterprise Policy Commission (“SEPC”) in January 1998. The Master Plan was approved by the Royal Thai Government Cabinet on September 1, 1998 (Royal Thai Government, 1998).

As stipulated by the Royal Thai Government (1998), the Master Plan provides greater detail on the guidelines for the Reform Program and on future infrastructure sector market structures and reform strategies. It consequently includes several sections not covered in the previous plan. These are: Roles and Responsibilities of the Participants in the Program (Section 5), Legal Reforms (Section 7), Use of Proceeds from Privatization (Section 10), Corporate Governance and Performance Monitoring (Section 11) Social, Labour and Environmental Concerns (Section 12), Public Information Plan (Section 13).

The master plan covers four major sectors: energy, communications, transportation and water. However, the master plan also includes a framework for the

privatization of public enterprises which are not under the mentioned sectors. They are listed under other sectors.

#### 2.3.4.1 Objectives of the Master Plan

In general, governments frequently use the multiple objectives of the reform. Commonly stated objectives can be roughly categorized as follows (Bennett, 1997):

1) Politic goals such as reducing the size of the public sector, restoring or strengthening the private sector (as in all transitional economies), spreading share ownership more widely (popular capitalism), and making productive enterprises more responsive and accountable to those for whom they produce;

2) Efficiency goals such as increasing productivity and microeconomic efficiency. The development of capital market institutions, which intermediate between savers and investors, may also be classed as an efficiency objective;

3) Fiscal stabilization goals such as maximizing proceeds of sales, reducing the future drain of subventions and capital contributions from government revenue, increasing tax revenues from higher profits and reducing the public debt; and

4) Resource mobilization goals such as promoting foreign investment in the country, releasing limited state resources for investment in other sectors such as education and health.

Therefore, the goal and purpose of the Master Plan for State Enterprise sector reform in Thailand are to provide guidelines, principles and practices for increasing effective private sector participation in the economy. The Master Plan will serve as the basic guideline for these reforms, and as a reference document for the government, ministries, enterprises, investors, employees and the general public as privatization plans and legal, regulatory and institutional reforms are prepared, approved and implemented in the years ahead. The Master Plan is a strategic document, giving the government flexibility in implementation but setting clear objectives and goals. The Master Plan highlights the government's commitment to improve the efficiency of the economy and increase the welfare of all Thai citizens.

The government will publish an annual Action Plan and Program Report based on this Master Plan (Ministry of Finance, 1998).

In essence, the Master Plan on State Enterprise Reform is a move to replace monopolies (by public enterprises) with competitive markets. Hence, the objectives of the master plan are:

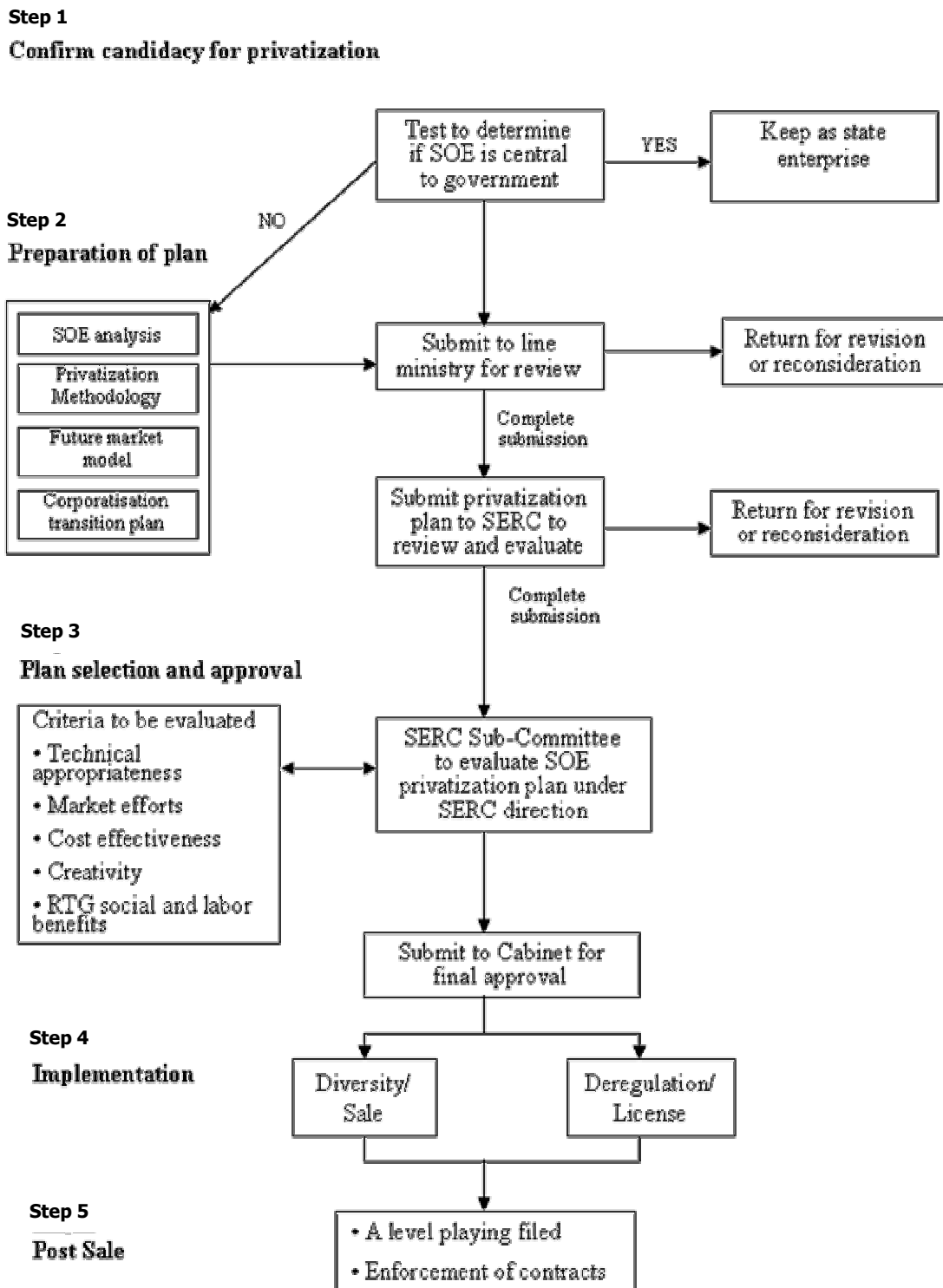
- 1) To facilitate the structural reform of public enterprise to improve the competitive edge of the country and to improve the efficiency of services;
- 2) To reduce the financial burdens on government resources and to provide capital for needed infrastructure investment; and
- 3) To provide social services and facilitate the creation of new job opportunities.

#### 2.3.4.2 Process of the Public Enterprise Reform

The State Enterprise Reform plan development will follow a typical path as shown in Figure 2.2 below. The State Enterprise Reform Committee (SERC) will have the responsibility to approve plans and to oversee their transparent and expeditious implementation.

## **2.4 The Public Enterprise Reform of the Energy Sector in Thailand**

Since the Master plan has been approved in 1998, the reform in energy sector has been implemented; two public energy enterprises (PTT and EGAT) have been transformed, whereas another two enterprises (MEA and PEA) have not yet been transformed. The progress of the development of the reform of PTT and EGAT is summarized as the following sections (Chandler and Thong-Ek Law offices Limited, 2006).



**Figure 2.2** Processes of the State Enterprise Reform in Thailand

Source: Royal Thai Government, 1998.

### **2.4.1 The Energy Reform Policy**

The reform policy of the energy sector has been gradually implemented over a number of years. The current policy derives from a number of resolutions by the National Energy Policy Council (NEPC) and the Cabinet. The latest resolutions are those of the Cabinet on 16 September 1997 that speeded up corporatization of the energy sector, the Cabinet resolution on 4 November 1997 which approved the sale of shares in EGCO and PTTEP, the Cabinet resolution on 1 September 1998 which approved the Master Plan for State Enterprise Sector Reform, and the Cabinet resolution on 16 February 1999 which approved the transformation of Ratchaburi power plant and the natural gas deregulation program (National Energy Policy Office, 1999).

According to National Energy Policy Office (1999), the third letter of intent between the Thai government and the IMF outlines specific measures related to the reform of the energy sector as follows:

- 1) In the Energy sector, Thailand will accelerate deregulation and competition. As part of the broader strategy of encouraging the entry of independent private generators to enhance competition, EGAT has initiated the sales of its stakes in Electricity Generating (Public) Co. Limited and Powergen 2 (Ratchaburi power plant) during 1998. Over the longer term, Thailand intends to split EGAT into separate generation and transmission companies, which themselves will eventually be transformed.

- 2) In the Oil sector, the Thai Government relinquished its stake in Bangchak Petroleum Company, commencing the process in June 1998. Also, they sold a part of PTT Exploration and Production (PTTEP), with the aim of privatizing PTT itself by the end of 1999.

The plan for the restructuring and privatization of the electricity supply industry, which is now being implemented, aims at promoting more competition in the industry and, simultaneously, mobilizing the private sector investment and shareholding in the sector. The underlying principle is to deregulate the industry wherever possible to encourage competition. For certain natural monopoly businesses, like power transmission and distribution lines for which investment in construction of new lines or piling would duplicate the existing ones and hence

would not be cost-effective, they will be subject to strict regulation with a view to protecting consumers' benefits.

The cabinet resolutions of 25 July 2000 and 3 October 2000 approved the proposed plan for the Electricity Supply Industry reform and the power pool establishment, together with the implementation action plans to this effect. The National Energy Policy Office, the three power utilities, and concerned agencies have been assigned to pursue the action plans, whereas the Ministry of Finance is to use the plans as criteria for evaluating the three utilities' performance (National Energy Policy Office, 1999).

#### **2.4.2 Regulatory Body in the Energy Reform**

Implementation of public enterprise reform has to be carried out in a cohesive manner; therefore, the master plan has proposed the reform of the State Enterprise Policy Committee (SEPC) and the committee to be formed under the Corporatisation Act. The newly merged committee, the State Enterprise Reform Committee (SERC), will have its secretariat as the Ministry of Finance and the National Economic Social and Development Board (NESDB) (Royal Thai Government, 1998). Table 2.5 summarizes the roles and responsibilities of the parties in the reform process.

#### **2.4.3 The Master Plan for the Energy Reform**

According to the Ministry of Finance (1998), a significant program of private sector participation has already been undertaken in the Thai energy sector, primarily based on extensive use of Independent Power Producers (IPPs) and facilitation of privately-owned distributed generation facilities under the Small Power Producer (SPP) program. The next stage of industry transformation is seen as building on this model by creating competitive markets across all stages of the energy supply chain.

**Table 2.5** Roles and Responsibilities of the Parties in the Reform Process

<b>Agency/Actor</b>	<b>Roles and Responsibilities</b>
State Enterprise	<ul style="list-style-type: none"> <li>• To develop and propose plans for increased private sector participation consistent with sector strategy and development.</li> </ul>
Line Ministry	<ul style="list-style-type: none"> <li>• To set policy direction and oversee sector privatization strategy.</li> <li>• To review and approve SOE's plan.</li> </ul>
State Enterprise Reform Committee (SERC)	<ul style="list-style-type: none"> <li>• To review SOE and ministry privatization plans and ensure consistency with overall reform program goals and objectives.</li> <li>• To approve or request amendments to plans.</li> <li>• To forward plans to cabinet for approval.</li> <li>• To oversee implementation.</li> </ul>
Secretariat Office of State Enterprise & NESDB	<ul style="list-style-type: none"> <li>• To conduct technical review of all plans on behalf of the SERC and to oversee program implementation for SERC.</li> </ul>
Cabinet	<ul style="list-style-type: none"> <li>• To review and approve or request amendment to plans proposed by SERC.</li> </ul>
Investor	<ul style="list-style-type: none"> <li>• To develop plans for investment in existing SOEs, or in new projects in a sector and to propose plans to SOEs, line ministry or SERC as appropriate.</li> </ul>

**Source:** Royal Thai Government, 1998.

The Master Plan classifies the energy sector into power, natural gas and oil sub-sectors. The following entities and their respective roles provide an overview of the power sub-sector, including EGAT (Electricity Generation and Transmission), MEA (Electricity Distribution in greater Bangkok and suburban areas), PEA (Electricity Distribution in the rest of Thailand), IPPs (Electricity Generation) and SPPs (Electricity Generation).

The natural gas sub-sector is comprised of PTT Gas (Gas Exploration and Development through PTTEP, Transmission and Trading) and Private Gas Entities (Gas Exploration and Production). Finally, the oil sub-sector includes PTT Oil (oil import and refining through its affiliate and investments, and distribution) and numerous private petroleum companies (petroleum refining and distribution).

#### Power Sub-sector

The power sub-sector will undergo a three-stage transition. Stage I will see EGAT retain its position as the primary power purchaser and provider in the country. In this stage, EGAT is corporatized as a whole, with autonomous business units operating as profit centers; Ratchaburi power plants are privatized; and regulatory controls are established to ensure non-discriminatory treatment of generators by transmission. In Stage II, EGAT will continue to retain its position as the central supplier of power; however, third party access will gradually be introduced to allow power producers to sell directly to users. EGAT's new power plants are privatized and privatization of existing plants commences. Finally, Stage III will see a competitive wholesale power pool and the introduction of retail competition.

#### Natural Gas Sub-sector

The natural gas sub-sector requires that two key issues be addressed:

1) Separation of PTT's Gas Transportation and Trading Functions: the primary objective of this separation is to promote competition. The optimal manner in which to execute this separation will be determined following extensive studies on appropriate strategies.

2) Third Party Access: the establishment of third party access to gas transmission pipelines is a means of facilitating the development of competition in gas supply. This will increase industry efficiency and in turn yield benefits to end users in the form of lower prices and improved service.

#### Oil Sub-sector

PTT is presently one of the key players in oil refinery and trading, which consists of refining, retail distribution and international oil procurement. PTT's passive investments in these areas indicate that an 'exit' strategy is required. These proceeds will then be re-deployed into identified value drivers for the company, principally in gas exploration and transportation. In exiting the various passive investments, a careful analysis will be made concerning the most suitable exit strategy.



#### **2.4.4 Development of PTT Reform**

According to National Energy Policy Office (1999), on 23 January 1996, the cabinet approved the strategy for restructuring the Petroleum Authority of Thailand (PTT) and for the promotion of a liberalized petroleum market. Consent was given to the corporatisation of PTT Oil, PTT International and PTT Gas, all owned by PTT, by the end of 1996. Some parts of these newly established companies had then been privatized as deemed appropriate, through listing on the Stock Exchange of Thailand (SET) during 1997-1998. This would be directed by an implementation plan that would be derived from a study on the detailed privatization process.

PTT has engaged a number of financial advisors to carry out a detailed study on various methods for privatization and public offering. Meanwhile, the NEPO has also engaged Dresdner Kleinwort Benson and London Economics to carry out a study on PTT privatization and the deregulation of the natural gas supply industry.

The PTT Corporate Restructuring and Privatization Plan has been agreed by PTT and NEPO. Upon government approval, the process of PTT corporatization will begin. In parallel, the various rules and regulations for the natural gas deregulation program have been drawn up. Finally, an announcement for public offering of PTT Co. Ltd. with shares initially 100% owned by the Ministry of Finance was released on October 1, 2001.

As reported by Chandler and Thong- Ek Law offices Limited (2006), two Royal Decrees were published on September 30, 2001:

- 1) The Royal Decree Stipulating the Powers, Rights and Benefits of PTT Public Company Limited, which prescribed that PTT Public Company Limited shall have the powers, obtain exemptions, have special rights and receive protection as prescribed and granted by the law governing PTT. Certain assets of PTT are not subject to execution (assets acquired under the law on expropriation of immovable properties, and the petroleum pipeline system). Specified employees of PTT Public Company Limited performing work on tank farms and pipeline systems will have official powers under the Criminal Code.

- 2) The Royal Decree Stipulating Time Clause for Repealing the Law Governing PTT, which prescribed that the Petroleum Authority of Thailand Act, is

repealed as of October 1, 2001. In November 2001, PTT conducted an IPO and as of May 2006, approximately 47% of its shares are owned by the public.

On December 4, 2007, Thailand's Supreme Administrative Court against a petition to de-list the PTT from the Stock Exchange of Thailand. The court determined that the Royal Decree Determining Powers, Rights and Benefits of PTT Public Company Limited of 2001 and the Royal Decree Determining the Time for Repealing the Laws Governing the Petroleum Authority of Thailand of 2001 could not be revoked as demanded by the group because they were legitimately issued. However, the court instructed the company to return the rights in expropriated areas and substantial natural gas pipeline assets to the Finance Ministry, although its listed status could be maintained.

#### **2.4.5 Development of EGAT Reform**

EGAT was a state enterprise in the form of a statutory corporation without shares owned by the state, under the administration of the Ministry of Energy (since October 1, 2002). Its property is exempt from execution. It possessed statutory powers to survey and use land for transmission line rights-of-way, and the right to acquire land for electricity generation plants through expropriation. Section 45 of the EGAT Act provided assurance that in the event of a shortfall in revenues, the state would appropriate funds to meet the shortfall (Chandler and Thong- Ek Law offices Limited , 2006).

In fact, a pre-reform policy has been at work in the power sector for more than 15 years. In the 1980s, small inroads were made into EGAT's monopoly by the petrochemical industry, which was allowed to build power plants for standby power and steam. The EGAT Act was amended in 1992 to allow some forms of privatization by way of establishing limited companies and entering into joint ventures with private power companies.

1) EGCO (Electricity Generating Plc.): In 1994, EGAT established a subsidiary, EGCO, which in turn formed a 100% owned subsidiary, REGCO. EGCO converted to a public limited company and made a public offering reducing EGAT's shareholding to 49%. REGCO purchased the Rayong Power Plant from EGAT. This was the first major step in the privatization of EGAT. EGCO

established a second subsidiary, KEGCO, which purchased the Khanom Power Plant in 1996.

2) RATCH (Ratchaburi Electricity Generating Holdings Plc.): In 2000, EGAT established a subsidiary, RATCH, which formed a 100% owned subsidiary, RATCHGEN. RATCH converted to a public limited company and made a public offering reducing EGAT's Shareholding to 45%. RATCHGEN purchased the Ratchaburi Power Plant from EGAT in 2000.

3) SPP Programme: In 1992, Regulations for the Purchase of Power from Small Power Producers were published by EGAT to promote the construction of small power plants to provide power and steam to private industry. The regulations authorized EGAT to purchase excess power from SPP projects. The regulations were amended in 1994 to increase EGAT's purchase capacity to up to 60 MW (or 90 MW) per SPP project. EGAT has signed power purchase agreements for 1 to 90 MWs with 92 SPP projects (as of 31 March 2006). Some 76 SPPs (firm 37; non-firm 39) are currently in commercial operation.

4) IPP Programme: In November 1994, EGAT published a request for proposals for power purchases from IPPs, together with a model PPA and a Grid Code, with a tender deadline of June 30, 1995. PPAs have been signed with seven IPPs for a total of 5,944 MW. All of the IPPs have achieved financial close, two IPPs commenced operations in 2000, and two in early 2003. The Grid Code was intended to provide a mechanism to regulate purchases by EGAT of electricity generated both by EGAT and by independent power producers, and applies to IPP projects in Thailand and hydropower plants in Laos.

5) EGAT Programme: A revised EGAT Power Development Plan (2004–2014) was published in August 2004.

On May 10, 2005, the Cabinet approved the recommendation of the State Enterprise Capital Policy Committee to proceed with the corporatisation of EGAT. On May 13, 2005, the Secretariat of the Cabinet sent a letter to the Chairman of the State Enterprise Capital Policy Committee, confirming the Cabinet's approval according to the resolution of the State Enterprise Capital Policy Committee No. 1/2548, and the two draft royal decrees were forwarded to the Office of the Council of State for review.

EGAT was corporatized (as noted in the introduction to this article) on June 24, 2005 under Section 26 of the Capital of State Enterprises Act, and converted to EGAT Public Company Limited (EGAT Public Company Limited). Two Royal Decrees were published:

1) A Royal Decree stipulating the powers, rights and benefits of EGAT Public Company Limited, B.E. 2548 (2005) prescribed that EGAT shall have the powers, obtain exemptions, have special rights and receive protection as prescribed and granted by the law governing EGAT and other laws applicable to EGAT. Certain assets of EGAT Public Company Limited are not subject to execution (assets related to the electricity generating business for common interest). Specified employees of EGAT Public Company Limited performing work on electricity systems have official powers under the Criminal Code. This Royal Decree established an Electricity Generating Business Committee with power to approve new power plants, transmission line rights-of-way and other policy decisions.

2) A Royal Decree stipulating a time clause for repealing the law governing EGAT, B.E. 2548 (2005) prescribed that the Electricity Authority of Thailand Act is repealed as of June 24, 2005.

EGAT Public Company Limited is governed by the provisions of the Public Limited Companies Act, B.E. 2535 (1992). EGAT Public Company Limited had planned to conduct an IPO in November 2005, offering up to 25% of its shares to the public, but the Administrative Court on November 15, 2005 issued an injunction to suspend the IPO until a future date.

On 23 March 2006, the Supreme Administrative Court ruled against the privatization of EGAT PLC, citing conflicts of interest, public hearing irregularities, and the continued right of expropriating public land. However, EGAT continues to have the right to expropriate public land to build power plants and transmission lines, a right reserved for the state. Two decrees were nullified: one ordering the dissolution of the status of EGAT as a state enterprise, and the other serving as a new charter for EGAT.

#### **2.4.6 Development of MEA and PEA Reform**

The Cabinet resolution of 28 November 1996, giving consent to the National Energy Policy Office's resolution, stipulated that the PEA should remain a state enterprise and that four subsidiary companies should be established to be responsible for power distribution in each region (National Energy Policy Office, 1999).

The Cabinet resolution of 17 June 1997, giving consent to the NEPC resolution, stipulated that MEA should remain a state enterprise and that certain businesses should be separated and become MEA's subsidiary companies, i.e. a power system services company; a concrete product designing and manufacturing company; and an energy services company (ESCO).

Since the power distribution system is a natural monopoly, corporatisation will, therefore, require amendments of the MEA Act and PEA Act. In addition, new legislation to implement a regulatory framework will be required. This process is likely to be lengthy.

To move the liberalization of the distribution sector forward, the Cabinet on 16 September 1997 and 4 November 1997 therefore approved NEPO's proposal that the concrete business which manufactures concrete poles would be an appropriate starting point for privatization within the next two years. This would be undertaken by privatizing the MEA's Office of Concrete Product Designing and Manufacturing and transforming it into the Concrete Product Designing and Manufacturing Company Limited. The company would be registered with MEA holding a 100% shareholding. This will later be diluted to no more than 49% so as to divest the company of the state enterprise status as soon as possible. Strategic investors will be identified.

The cabinet resolution of 1 September of the State Enterprise Reform Master Plan included an action plan for the restructuring of MEA and PEA and their corporatization. Further study is to be undertaken on the methods of restructuring. In particular, the potential for the separation of distribution and supply will be examined to allow the development of competition in retail supply. Should such a strategy prove feasible and viable, the issue of the geographic separation of the distribution utilities may be re-considered.

Since the Administrative Court issued a ruling revoking retroactively the two Royal Decrees of EGAT in 2006, the effect has been interpreted as the restructuring process and corporatisation of MEA and PEA. This incident has temporarily suspended the MEA and PEA reform until the present.

## **CHAPTER 3**

### **LITERATURE REVIEW**

The chapter reviews the literature relevant to three major areas: overviews of organizational commitment, impacts of public reform policy implementation on organization, and the conceptual framework of the study. In the first section, a description of today's definitions of 'organizational commitment' and the significances, types, and measurements of, and antecedents to, organizational commitment are explained. The second section identifies changes in organization when the reform policy has been implemented. It focuses on the impacts of reform policy on specific commitment antecedents and on the relationships between such changes and organizational commitment. This section also includes information on the studies of various dimensions of commitment. Finally, the chapter introduces a conceptual framework as well as the hypotheses of the study.

#### **3.1 Organizational Commitment**

##### **3.1.1 Defining Organizational Commitment**

Multiple definitions of commitment are found in the literature. For instance, Steers (1977) defined organizational commitment as the relative strength of an individual's identification with and involvement in a particular organization. Mowday et al. (1979) defined organizational commitment as an effective response which moves beyond passive loyalty to an organization. Porter et al. (1974) identified three related factors of organizational commitment: (1) a strong belief in an organization's goals and values; (2) a willingness to exert considerable effort for the organization; and (3) a strong desire to maintain membership in the organization.

Generally, an organization can be defined as the relative strength of an employee's attachment or involvement with the organization where he or she is employed. Meyer and Herscovitch (2001) compiled a list of definitions and analyzed

the similarities and differences. The similarities served as the basis for a definition of what they considered the 'core essence' of commitment:

**Commitment is a force that blinds an individual to a course of action that is of relevance to particular target.**

When combining the above definition of commitment with an organization, Mowday et al. (1982) defined organizational commitment as 'a strong belief in the organization's goals and values, a willingness to exert considerable effort on behalf of the organization, and a strong desire to remain a member of the organization.' Similarly, O'Reilly and Chatman (1986) defined organizational commitment in terms of internalization, identification and compliance. Internalization refers to a comparison of individual values to those of the organization. Identification refers to pride, or a desire to be with the organization that is not within the value system, and compliance refers to involvement with the organization in exchange for specific extrinsic rewards (Sutton and Harrison, 1993). The differences in definitions of commitment led them to conclude that commitment can take different forms.

Meyer and Allen (1991) initially developed a three-component model to address observed similarities and differences in existing unidimensional conceptualizations of organizational commitment. Common to all was the belief that commitment binds an individual to an organization and thereby reduces the likelihood of turnover. The main differences were in the mindsets presumed to characterize the commitment. These mindsets reflect three distinguishable themes: affective attachment to the organization, obligation to retain membership, and perceived cost of leaving. In order to distinguish among commitments characterized by these different mindsets, Meyer and Allen labeled them 'affective commitment,' 'normative commitment,' and 'continuance commitment,' respectively (Meyer and Becker, 2004).

**Affective commitment** refers to employees' emotional attachment to, identification with, and involvement in the organization. Affective commitment can be categorized by three factors: (1) belief in and acceptance of the organization's goals and values; (2) a willingness to focus effort on helping the organization to achieve its goals; and (3) a desire to maintain organizational membership. It represents a state in which an individual identifies with a particular organization and

its goals and wishes to maintain membership in order to facilitate these goals. According to Meyer and Allen (1997), affective commitment represents the employee's emotional attachment to the organization and employees retain membership because they want to do so.

**Continuance commitment** refers to commitment based on the costs that employees associate with leaving the organization, such as loss of income. This commitment also refers to utilitarian gain from the employment relationship, with the employee being less likely to leave the organization based on the extent to which the contribution ratio is in balance favorable to the employee. It is a function of the rewards and costs associated with organizational membership. According to Meyer and Allen (1997), employees that possess continuance commitment retain membership because they have to do so.

Finally, **normative commitment** refers to employees' feelings of obligation to remain with an organization. This type of commitment is viewed as a belief about one's responsibility to the organization. Normative commitment may result from pressures exerted either prior to or after organizational entry. According to Meyer and Allen (1997), employees retain membership because they feel that they ought to do so.

### **3.1.2 Significance of Organizational Commitment**

Organizational researchers have long been interested in employee commitment. This interest derives from the belief and evidence that there are benefits to having a motivated and committed workforce (Meyer and Becker, 2004).

Organizational commitment has been identified as a critical factor in understanding and explaining the work-related behavior of employees in organizations. Kritsana Potisarattana (2000) reviewed several studies of organizational commitment and found that during the past decade many researches focused on identifying the various causes and implications of organizational commitment. These studies describe the development process of organizational commitment, defined as the strength of an individual's identification and involvement with an organization.



A committed employee is generally described as one that stays with an organization, attends work regularly, puts in a full day and more, protects corporate assets, and believes in organizational goals (Meyer and Allen, 1997). A committed employee therefore, in theory, contributes to the competitive edge for the organization because of the positive nature of this work behavior.

Nonetheless, some critics propose that costs and benefits accrue for both the organization and the employee. For instance, unquestioned commitment to an organization may result in acceptance of the status quo and a loss of innovation. An employee that is overly committed to an organization may not develop broad skills, hence making him less marketable, or these employees may remain with an organization simply because they feel that they have no choice but to do so. The form of commitment that most closely represents this type of employee is termed 'continuance' and this dimension of commitment is included in this study.

The literature described employees with strong normative commitment as generally behaving in ways supportive of the organization. Normative commitment, however, is based on feelings of obligation, and it is thus not inclined to generate a sense of enthusiasm or involvement. Employees with strong normative commitment may also represent the organization if they have a sense of obligation (Meyer and Allen, 1997).

Obviously, the increased complexity of work organizations, combined with the significant technological changes that have taken place in recent years, make the notion of commitment especially important. This is based on the belief that to create a successful workplace, an organization must concentrate its energies on both economic and social performance, and invest in employee commitment rather than compliance. The presupposition is that positive organizational commitment, including feelings of affiliation, attachment, and citizenship behavior, tends to improve organizational efficiency and effectiveness by contributing to resource transformations, innovativeness, and adaptability. Hence, organizational commitment is a promising construct as it encompasses positive attitudinal traits, including loyalty and attachment. In particular, it highlights the increasing realization that organization members' subscription to organizational goals tends to affect their attitudes and

intentions regarding the organization and that such attitudes and intentions are crucial elements of organizational survival.

### 3.1.3 Measurements of Organizational Commitment

As described in the preceding section, organizational commitment is a multiple definition as well as a multidimensional construct.

Consistent with their understanding of organizational commitment as a multidimensional construct, Meyer and Allen (1991) proposed a three-component model of organizational commitment and developed a scale to measure these components (Meyer and Allen, 1997). Those three components include: affective commitment, continuance commitment, and normative commitment.

Employees can experience each of these types of commitment to an organization to varying degrees. Meyer and Allen (1997) advised that the three components should not be seen as mutually exclusive, but as components that can variously coexist. Three scales were structured to evaluate the model: the Affective (ACS), Continuance (CCS) and Normative (NCS) Commitment Scales.

In the Commitment Scales, affective commitment denotes a **‘want to’** form of commitment that is related to the emotional need for and social interactions with other members of the organization, as well as the positive feelings that result from association with the organization. Continuance commitment denotes a **‘have to’** form of commitment, indicating an awareness of the costs associated in leaving an organization. Normative commitment denotes an **‘ought to’** form of commitment, related to a sense of moral responsibility or feeling of duty or obligation to the organization.

Although one approach to the study the organizational commitment is a multi-faceted view, affective commitment represents a major approach to the study of organizational commitment (Hackett et al., 1994). The perspective that includes multiple facets of the concepts also represents a relatively new area of study. While a more inclusive perspective on commitment would be beneficial to commitment research results efforts, studying commitment using more than one facet requires the researcher to ensure that each form is operationally distinct. In addition, the added complexity of a multiple component model requires unambiguous specification of the

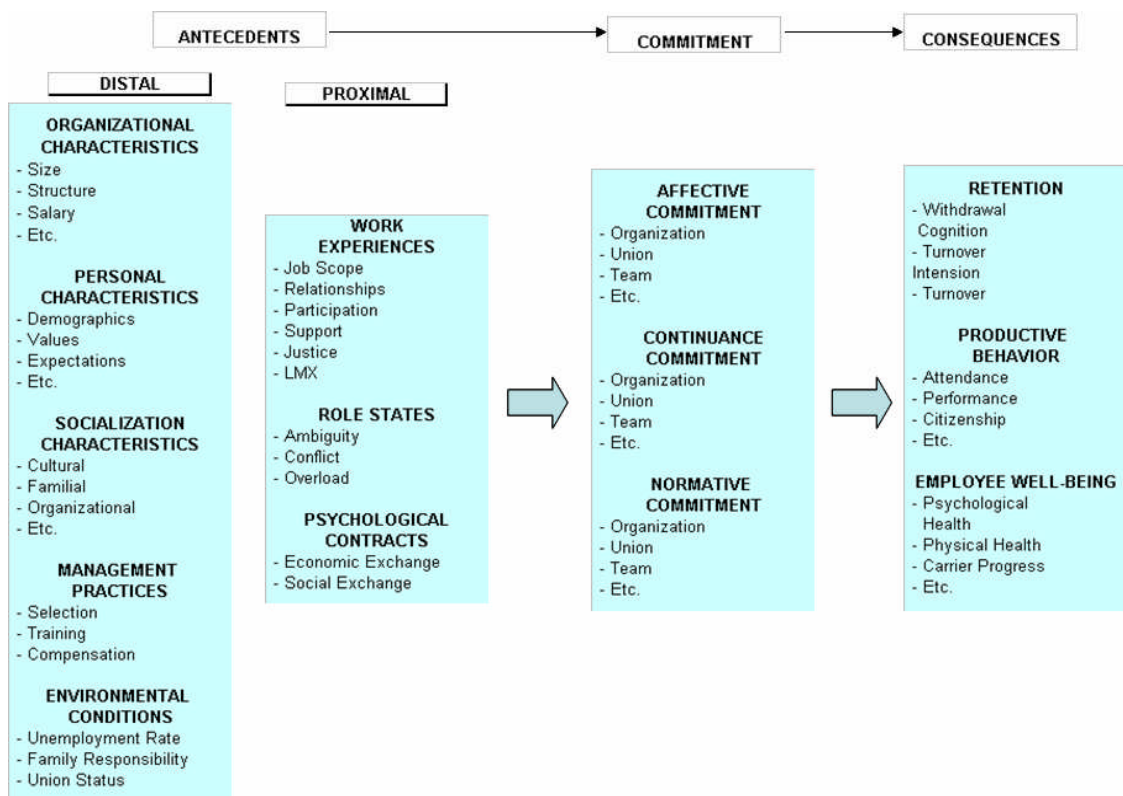
relationship between each commitment component and other variables of interest (Somers, 1995).

### **3.1.4 Antecedents to Organizational Commitment**

Researchers of organizational commitment have been trying to determine what the organization is about and the employee's experiences that influence the development of the organizational commitment once the individual has selected membership in an organization. As a consequence, hundreds of empirical studies have examined the correlations between organizational commitment and the variables hypothesized to be its antecedents. Figure 3.1 describes the antecedents to organizational commitment (Meyer and Allen, 1997).

Meyer and Allen's model (as shown in Figure 3.1) focused on distal and proximal influences on organizational commitment that are antecedents of organizational commitment.

Distal variables are more direct than proximal variables, which typically have more implicit influence on individual behavior. Examples of distal variables are personal characteristics, organizational characteristics, socialization experiences, management practices, and environmental conditions. Distal causes exert an indirect influence on commitment through their association with more proximal causes.



**Figure 3.1** A Multidimensional Model of Organizational Commitment.

**Source:** Meyer and Allen, 1997.

In contrast, proximal variables are direct and explicit influences on individual behavior. They reflect an exchange relationship with the organization. Examples of proximal variables are work experiences, role states, and psychological contracts.

An understanding of how employee commitment develops, and the potential relationship between commitment and work behaviors, is critical to conducting a complete study of the construct. The literature generally focuses on two areas: antecedents and outcomes. Both predictors and results of affective, continuance, and normative commitment have been studied widely.

Affective commitment antecedents are generally studied in terms of personal characteristics or work environment attributes. In previous studies, the relationships between various personal characteristics and organizational commitment have not produced impressive results. According to DeCotiis and Summers (1987), no 'commitment profile' of an individual exists. However, Lee et al. (1992) investigated

the role of personal characteristics, for example, a summary concept of personal characteristics and experiences that individuals bring to the organization, and found it to predict subsequent organizational commitment. Steers (1977) found that personal characteristics, especially the need for achievement and education, negatively influenced organizational commitment.

Although research has uncovered some positive associations, overall the relationships between demographic variables (e.g. gender) and affective commitment are weak (Meyer and Allen, 1997). Studies have found some positive relationships between both age and tenure and commitment, which may be the reflection of the process of growth in the development of identification (Allen and Meyer, 1996; Hackett et al., 1994; Stevens et al., 1978). These findings support the intuitive belief that employees' assumptions of lengthy tenure will lead them to have greater organizational commitment than contract employees.

In regard to work environment attributes associated with organizational commitment, variables include organizational structure, organizational climate and human resource processes (DeCotiis and Summers, 1987). In the first area, for instance, role perceptions such as role conflict and ambiguity have been found to be correlated with commitment (Stevens et al., 1978). The responsibility offered by the task itself was also reported to have a positive effect on commitment. Allen and Meyer (1990) pointed out that the strongest evidence has been provided for work experience antecedents, especially those that fulfill an employee's psychological needs to feel comfortable and competent.

Some research has reported a relationship between various climate dimensions and commitment. Salancik (1977) found that employees that described themselves as personally important to the organization were highly committed. Commitment was also found to be high in organizations that were described as being high in autonomy and trust (Steers, 1977).

Human resource processes such as leadership, communication, and decision-making have been found to be correlated with organizational commitment. The results from Gaertner and Nollen (1989) suggest a clear connection between employee perceptions of employment practices and affective commitment.

Participants with positive perceptions about internal mobility, training, and employment security were more psychologically committed to the organization.

An important human resource management practice, which has not been widely studied in terms of its relationship to commitment, is the learning associated with the socialization of employees. Organizational socialization is mainly an information-seeking process in which employees focus on acquiring the information they need to make sense of the work setting (Miller and Jablin, 1991). The research of Morton (1993) indicated that employees develop job proficiency by first seeking information through establishing co-worker relationships, then pursuing directions from the supervisor. Learning occurred formally, informally, or incidentally. Morton's study found that those employees that mastered socialization-related learning were more committed to the organization.

Furthermore, the findings of Morton's study indicated that the process applied to both new and seasoned workers because socialization is required whenever individuals enter new areas of responsibility, e.g., moving to a new department, obtaining a promotion, getting a new coworker or supervisor, or even returning to school (Schein, 1988). Morton's model suggests that socialization-related learning consists of work experiences, informal learning, on-the-job training, and formal learning. Socialization is a process that is continuous throughout one's career because of experiencing ongoing change such that constant learning and development are appropriate (Falcione and Wilson, 1988).

Continuance commitment generally explores two antecedent areas: investments and alternatives. Investment includes the previously-mentioned notion of 'side bets', i.e., actions that link a person to a course of action because something would be forfeited if the activity were discontinued. Leaving the organization would mean a loss of some type of investment (time, money, effort). Alternatives refer to employment choices which individuals believe to be available. Continuance commitment is negatively correlated with the number of alternatives. Meyer and Allen (1997) emphasized that continuance commitment will not be influenced unless employees recognize the cost of leaving due to investments or alternatives.

Normative commitment has not been studied extensively but preliminary hypotheses focus on the areas of socialization, investments by the organization, and

the development of psychological contracts (Meyer and Allen, 1997). Both early socialization from one's family and one's culture and socialization as newcomers to an organization can put pressure on individuals, hence developing normative commitment (Wiener, 1982). Individuals learn what is valued and internalize beliefs about being loyal to one's organization, thus processing a personal commitment predisposition. Organizations can define their value systems and recruit and select individuals with similar values of loyalty and duty. In addition, some researchers speculate that when an organization has invested in its employees (e.g., providing intensive training courses, funding employees for further study, etc.), this may create a sense of obligations on the part of the employee. In other words, the employee will have commitment because of such investment in the organization (Meyer and Allen, 1991).

One of the modifications required to make the three-component model more widely applicable is a reconceptualization of the behavior consequences of commitment. As presented in Figure 3.1, the primary outcome of interest is retention (turnover), while other (secondary) outcomes (e.g., attendance, job performance, organizational citizenship behavior) are also of interest. When considering commitment to other targets in the workplace (e.g., goals, policies, change initiatives), nonetheless, retention is typically not the primary outcome of interest. Hence, in developing a more general version of the model, Meyer and Hercovitch (2001) proposed to distinguish between focal and discretionary commitment-relevant behavior. Focal behavior is that course of action to which an individual is bound by his or her commitment (remaining with the organization), whereas discretionary behavior includes any course of action that can be included within these terms at the discretion of the individual (exerting extra effort). Commitment, regardless of its form (affective, normative, or continuance) should lead to the enactment of the focal behavior. The extent to which employees engage in discretionary behavior, however, should depend on the mindset that accompanies this commitment (i.e., desire, cost, obligation).

## **3.2 Impacts of the Reform on Organizations**

The Public Enterprise Reform policy is a pretext to start a large-scale change process, which takes place both in terms of external and internal environments.

While the changes in the external environment, which derive mainly from the introduction of competition and deregulation, have been abundantly analyzed, the same cannot be said about the changes in the internal environment and, particularly, their less tangible effects for the employees, human resource policies and organizational culture (Nelson et al., 1995).

### **3.2.1 Organizational Changes from the Reform**

Organizational change is a process which involves alterations or modifications to an organization's structure, goals, technology or work tasks (Carnell, 1995).

Since the public enterprise reform as well as privatization refer to the policy that aims at increasing a number of private roles into the operations of public enterprises (Nantnach Rungrusamiwatanakul, 2006) and the transfer of state properties and activities to the private sector, dramatically changes will occur in the transformed organizations. Reform therefore leads to a sharp change in strategy, power structures and in the control of organizations.

The public enterprise reform creates a process of change in the organization's goals, incentives, control, strategy, structure, and culture which brings about improvements. The reform also gradually de-institutionalizes actors' "public sector" norms, and institutionalizes new, competitive "private sector" norms (Johnson et al., 2000). Change in the internal environment of transformed organizations is expected to accompany the ownership status change, particularly in what concerns structure, strategy, management composition, human resource management, and organizational goals (culture).

### **3.2.2 Impacts on Organizational Structure**

Under the reform regime, in almost all cases of transformed organizations, the organizational structure of a public organization will move toward the private organization. Given the new organizational goals and competitive strategies,



organizational structures are also expected to adapt in order to become more profitable and customer oriented. Research has reported major restructuring processes, with an emphasis on the core business, the adoption of more decentralized and flatter organizational designs, and a removal of layers of middle management and headcount reduction to make operations more cost-effective (Bishop and Thompson, 1994; United Research, 1990).

In practice, a privatized organization under high government control frequently occurs. This allows only partial privatization. The reason is that the government actually needs money but still requires to hold a majority share of a privatized firm. In this event, the government decides to sell only partial shares to the public which generates sufficient revenues. As a result, the main objective of privatization seems to be increasing revenues or developing capital markets instead of improving the efficiency of a privatized firm, because it has already been shown that it is impossible to improve the efficiency of a firm unless the private owner control is strong.

Unlike a fully-privatized firm, a partially privatized firm, under mixed-ownership, also has to follow non-commercial targets, faces managerial constraints and possibly still has an ineffective monitoring system. Therefore, it is plausible that a partial privatization may not enable a privatized firm to enhance its performance. Operations under mixed-ownership could generate conflicts within an organization and this could have an adverse effect on its performance. Table 3.1 presents the relationship between control and behavior of a privatized firm under mixed-ownership.

**Table 3.1** Control and Behavior of the Privatized Firm

Level of Privatization	Government Proportion of Total Shares	Private Share Distribution	
		Concentrated	Dispersed
High (Fully privatized)	Low	High private owners control, strong profit maximizing pressure.	Lower owners control, high management discretion. Disproportionate government control
Medium	Medium	Intermediate control. Joint owner control if consensus on objectives; if not, management may exhibit cognitive dissonance.	Intermediate government owners control, with some management discretion. Private owners control is relatively weak.
Low (Partially privatized)	High	High government control. Little control by private owners. Pressure to fulfill the rationale of public owners.	High government control. Strong pressure to meet government objectives. Minimal control by the private owners.

**Source:** Adapted from Boss, 1991.

In the Thai context, as described in the proceeding sections, the energy reform policy creates three structural types of energy public enterprises; a non-transformed structure or a totally state-owned structure (organization type I), a partially transformed structure (organization type II), and a totally transformed structure (organization type III), varying from the degree of the government intervention.

#### **Type I: Non-transformed or totally state-owned organization**

In the non-transformed enterprise (totally state-owned), the state not only exerts absolute ownership of a public enterprise, but also sustains firm control on the enterprise and its resource. As a result of the energy reform, the Metropolitan

Electricity Authority (MEA) and Provincial Electricity Authority (PEA) represent the Type I organization.

**Type II: Partially-transformed organization**

In the partially-transformed enterprise, the government sustains absolute ownership while attempting to restructure the public enterprise through the sale of some assets or the development of joint ventures. As a result of the energy reform, the Electricity Generating Authority of Thailand (EGAT) represents the Type II organization.

**Type III: Totally-transformed organization**

In this type of organization, the state maintains a significant portion of the stakes through which it can influence the management of the enterprise and receive profits. PTT Public Company Limited (PTT) represents the Type III organization as the result of implementing the energy reform policy.

**3.2.3 Impact on Management and Human Resources Practices**

The literature on public enterprises has revealed multiple and different types of management which have been used to control them. In order to manage public enterprises, the government as owner is likely to exercise managerial control on the lines of the family business in all important matters. Lioukas and Koremeous (1989) have stated that the management of public enterprises seeks and struggles to obtain some degree of autonomy over strategic and operational decision-making. However, most governments have applied strict and specific controls over a wide range of decisions in order to limit this management autonomy. These controls can be grouped into five categories:

- 1) controls over strategic decisions concerning the scope of public enterprise activities;
- 2) controls on outputs such as pricing decisions;
- 3) controls on human resources such as civil service regulations in terms of manpower freezes, restrictions on recruitment, salaries, and the appointment of top managers;
- 4) controls on financial resources and controls over managerial and supplies, such as following the government budgetary process and procedures; and

5) 'miscellaneous controls,' including controls on different operation issues and interventions in day-to-day management and in routine transactions.

Unlike management in the public organization, the public enterprise reform allows some degrees of flexibility and delegates some levels of decentralization to the transformed enterprises. One of the dominant management practices suggested for coping with change within the contemporary organizational environment is to adopt private-sector practices and, in so doing, to transform public sector organizations to be more flexible, adaptive and innovative (Parry and Proctor-Thomson, 2003). Furthermore, the infusion of new leadership teams, at the executive and board levels, is another characteristic of reform-induced change. Cunha and Cooper (1998) reported the recruitment of senior management with private-sector experience, as well as finance and marketing executives, which, in some cases, had the indirect virtue of uncovering managerial talent from within the company. Managerial jobs also tend to change in identifiable ways, namely in terms of communication with employees about the new rules of the game and commitment to a new style of management, of which employee participation and continuous improvement are integral parts. This impact leads to change in the management practices (particularly in human resource management practices) in the transformed enterprises. Finally, human resource policies and activities are significant management tools that promote commitment of the labor force to the new organizational culture or, at least, to help define acceptable corporate behavior in the new order.

### **3.2.4 Impact on Individual Employees**

Reductions in the labor force have been cited as a major consequence of the change process induced by reform policy implementation, since public sector organizations are traditionally associated with over-manning. Other changes have also been reported, such as those in labor relations and employment contracts, as well as compensation practices, with the introduction of performance pay. Extensive and intensive training programs have been implemented in order to develop a more commercial and customer-oriented approach. As mentioned by Cunha and Cooper (1998), nevertheless, that 'little importance has been given to other human resource policies, like recruitment of new organizational members and performance appraisal,

which are important elements not only to fill gaps in terms of knowledge and skills, but also to clarify psychological contracts and facilitate superior/subordinate communication.'

This change process implies behavioral changes on the part of the individual employees and is likely to be accompanied by resistance, stemming from the heightened perceptions of uncertainty that coexist with extensive organizational change and also from the changes in the power relations in the organization. Political behaviors are, therefore, encountered, particularly on the part of some managers who fear losing influence in the organization. In a crisis situation, however, resistance to change is less likely to occur, even though high individual costs are involved. The status shift from public to private ownership, with the external environment's change to which the organization must adapt, is likely to produce a sense of organizational crisis. Even when transformation-induced change is accepted by a significant majority of the stakeholders in the company, the uncertainty that is created in the short term with the restructuring should originate an increase in occupational stress for individual employees (Cunha and Cooper, 1998).

Occupational stress may be defined as the feeling of a person who is required to deviate from normal or self-desired functioning in the workplace as a result of opportunities, constraints, or demands relating to potentially important work-related outcomes; it is therefore an undesirable feeling and different from motivational feelings of arousal (Parker and DeCotiis, 1983).

Occupational stress has powerful and far-reaching effects, both in terms of work behaviors and in terms of physical and psychological well-being. Growing evidence suggests that stress plays a role in some major health problems, such as heart disease, high blood pressure, ulcers and diabetes, as well as anxiety, depression, fatigue and lowered self-esteem (Cunha and Cooper, 1998). It has also been suggested and empirically confirmed that performance on many tasks is in fact affected by stress and that performance drops sharply as stress rises to high levels.

Several organizational characteristics may be identified as potential sources of occupational stress, such as role ambiguity and conflict, leadership behaviours and unsatisfactory relationships at work; these stressors may be present in companies that are experiencing privatization processes associated with the uncertainty of the

consequences of change programmes, as well as the anticipation or concern about the possibility of future job loss (job insecurity) and deterioration in working conditions (Roskies et al., 1993).

According to Lopopolo (2002), the complexity of the behavioral demands of a particular role may lead to stress in the form of job insecurity, perceived workload, role conflict, or role ambiguity.

1) Job insecurity occurs when major organizational changes viewed as a threat to working relationships and routines resulting in uncertainty lead to job security.

2) Perceived workload occurs when an employee perceives that too much is expected of him or her in the performance of the job.

3) Role conflict occurs when simultaneous and competing role expectations are received by the employee and complying with one set of expectations interferes with complying with the others.

4) Role ambiguity occurs when an employee perceives that there is a great deal of uncertainty about aspects of the role or membership in work group.

Any of these forms of stress can contribute to organizational problems that have been shown to lead to a diminution in employee and organizational performance.

### **3.2.5 Impact on Organizational Cultures and Values**

According to Ouchi (1981), organizational culture can be described as set of symbols, ceremonies, and myths that communicate the underlying values and beliefs of an organization and its employees. Organizational culture can also be thought of as the true social background of an organization typified by ingrained patterns of behavior, shared values, and assumptions or belief a corporation's employees have about the organization and the organization's work (Peterson and Spencer, 1990). It comprises the attitudes, experiences, and values of employees in an organization. It has been defined as 'the specific collection of values and norms' that are shared by people and groups in an organization and that control the way they interact with each other and with stakeholders outside the organization. Organizational values are beliefs and ideas about what kinds of goals members of an organization should pursue and ideas about the appropriate kinds or standards of behavior organizational members

should use to achieve these goals. From organizational values develop organizational norms, guidelines or expectations that prescribe appropriate kinds of behavior by employees in particular situations and control the behavior of organizational members towards one another (Charles and Gareth, 2001). Furthermore, values are 'core values' when their influence on what people do supersedes that of most other values in a value system (Pant and Lachman, 1998).

Organizational goals and values are expected to shift towards profit maximization, since private firms pursue shareholder value maximization while public sector firms are dependent on political objectives/interests, consumer welfare and the welfare of public-sector employees for whom profits are not the primary goal. As an organization shifts towards profit maximization, the strategy to achieve these new goals is also most likely to change, even before the privatization takes place.

Considering that organizational cultures and values have a strong impact on organizational efficiency and effectiveness, managers are likely to be concerned with the cultural content and strength that will be more appropriate for the new organizational mission and strategy since not all cultures and values suit all purposes. If an organization is able to emphasize in its internal and external communication the values that permeate organization members' day-to-day actions, the organization can benefit from what motivates employees when they are doing their jobs. Moreover, core values have intrinsic meaning and importance to organizational members. Particularly under conditions of ambiguity and uncertainty, it is preferable to manage an organization by stressing such values, rather than relying on bureaucratic or personal mechanisms of control. Precise knowledge of which core values motivate organization members' behavior helps to improve the fit between envisaged strategy and workforce motivation to implement such a strategy. Management will have a difficult time implementing a strategy incompatible with these values (Rekom et al., 2006).

In the particular case of transformed companies, this concern may be even stronger, since the organizational objectives will suffer a dramatic shift. It has been stated, in a previous section, that public-sector companies have quite different values and goals from those of private companies. The beliefs and values that proved successful in public companies will no longer remain successful in private companies,

since the external environment, the sources of income and the competitive strategies are not similar.

State-owned companies have been characterized as having a "no-owner company" values, shaped by frequently rotated leadership, conflicting objectives, lack of individual accountability and emphasis on the production, instead of having a customer orientation which may suggest weak organizational values and norms. Privatization (the reform), on the contrary, brings in new leadership with a long-term horizon, as well as different organizational goals. Instead of conflicting objectives that try to balance organizational performance requirements with the political agenda of governmental officers who appoint public managers, after privatization new goals will emphasize value maximization. Organizational culture of privatized companies may, therefore, be expected to change over time (Cunha and Cooper, 2002).

Because of organizational changes, work-related values in different cultures and organizations have become more interesting issues. Hofstede (1985) states that employees' work-related values affect their behaviors in organizations. Curry et al. (1986) found strong beliefs in an organization's values and goals, willingness to extend considerable effort for the organization, and a strong intent or desire to remain in the organization. Similarly, Williams and Anderson (1991) specified that organizational commitment represents behaviors that include personal sacrifice made for the sake of the organization, primary dependence on reinforcement or punishment, and an indication of a personal preoccupation with the organization.

### **3.3 Relationship between Organizational Change and Organizational Commitment**

This section reviews types of organizational changes in organizations and their relationship to the organizational commitment findings from previous studies.

#### **3.3.1 Organizational Commitment of Transformed Organizations**

Employee wellbeing represents an important construct to organizations. From the inception of organizational science, organizational commitment among employees



has been considered an important result for developing the organization. It is also considered an important influence on employee behavior and organizational effectiveness. Various factors related to such organizational commitment would appear to require study so that the organization could address working conditions, attract candidates, provide incentives for long-term employment of effective organizational leaders, and enhance organizational effectiveness.

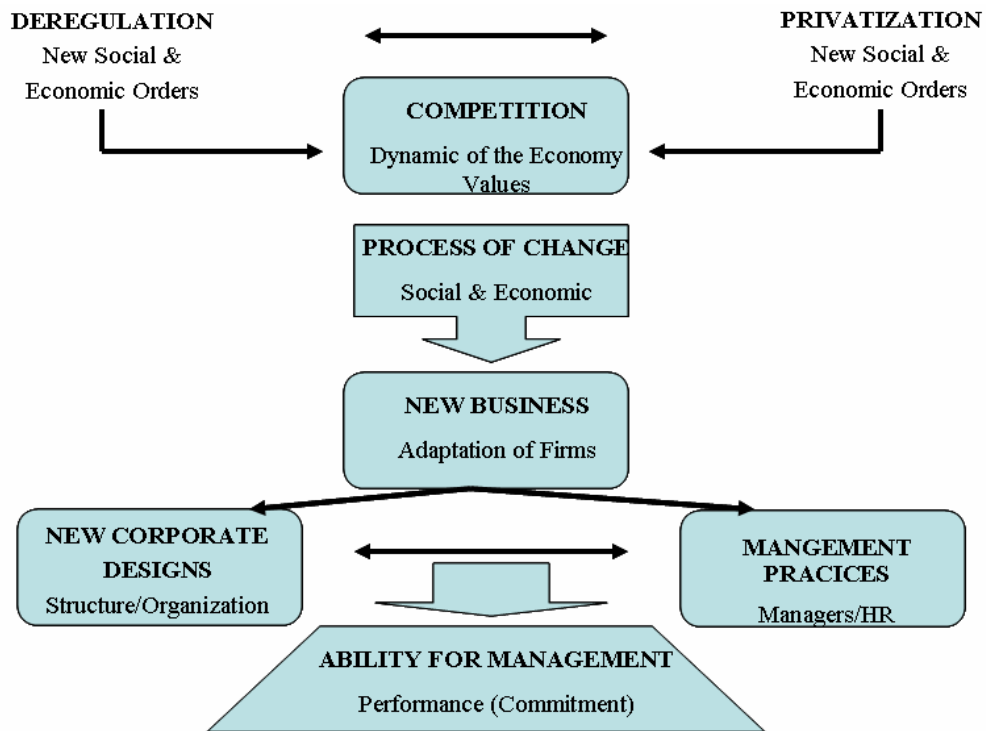
As described earlier, the transforming process resulting from public enterprise reform unleashes a major change process in the enterprise's internal organization, with the objective of increasing effectiveness, efficiency and shareholder's value, ultimately leading to a change in the corporate culture. This major change process has an impact on employee wellbeing and commitment, since it is associated with increased uncertainty and therefore produces increased perceptions of occupational stress, lower job satisfaction, employee retention and commitment, and higher absenteeism symptoms.

Finally, human resource management practices are significant management tools for the promotion of the commitment of the labor force to the new organizational culture or, at least, to help define acceptable corporate behaviors in the new order.

### **3.3.2 Changes in Organization and Organizational Commitment**

As described in the preceding sections, the public enterprise reform policy creates changes in organizations that would cause numerous changes in the organizational structure, change-related behaviors (occupational stress), internal organizational management (human resources management practices), as well as the corporate culture.

The degree of organizational performance as well as organizational commitment depends upon what direction in which the transformed organizations have been changed within the framework of Figure 3.2 below.



**Figure 3.2** The Effects of Reform on Organizations and the Ability of Management

**Source:** Adapted from Echevarria and Del Val, 2004.

As illustrated in Figure 3.2, a study of the literature found relationships between changes in an organization caused by the reform (deregulation and privatization) in internal organizational factors (structure, management, culture) and organizational performance or commitment. This section extends previous research by examining the relationships between organizational commitment and four types of antecedents (changes): organizational characteristics (structure), role states (change-related behaviors), management practices and work experience (human resources practices), and socialization characteristics (values and cultures).

### 3.3.3 Organization Structure (Organizational Characteristics) and Organizational Commitment

According to Meyer and Allen's model (as shown in Figure 3.1), the organizational structure factor is one of the organizational characteristics that is an antecedent to organizational commitment.

The literature contains some evidence that organizational structure variables influence commitment. Evidence mildly suggests that workers are more committed to decentralized organizations. For instance, Mowday et al. (1982) included decentralization and participation in decision making as the most important organizational characteristic that influences commitment. An organizational environment that encourages open communication and new initiatives on the part of employees is related to organizational commitment. Other organizational characteristics such as job responsibilities, an abundance of personal growth potential, and an adaptable, flexible work atmosphere also positively influence worker's workplace satisfaction and commitment. Many of these characteristics can be thought of as common to both an organic organization and a mechanic (bureaucratic) organization.

In an organic organization, research has shown that when a worker feels he or she has a high level of autonomy, responsibility and empowerment on each organization level, and participative management, he will experience increased satisfaction and commitment levels (Campbell et al., 1991).

Bureaucratic structuring of activities refers to a key dimension of bureaucracy. The intensity of interaction between parties in an organization influences the relational cohesion and the commitment of each party to the organization. If structuring depersonalizes the exchange, commitment should fall. Koprowski (1972) reported that such workplace practices as rigid procedures, tight workplace controls, hierarchical top-down management, and strict emphasis on chain of command all serve to negatively impact knowledge worker's satisfaction and commitment.

Furthermore, the literature supports the notion that organizational structure variables (including type of organizational ownership) influence organizational commitment. Some research suggests that individual demographic and job characteristic variables are not particularly salient correlates of commitment in comparison with the nature of ownership (Oliver, 1990). In this regard, private sector employees have often been reported to hold higher commitment than public sector employees (Odom et al., 1990).

As typical of research on organizational commitment which uses an individual rather than an organizational level of analysis, it may be that the influence

of structural characteristics on commitment is not direct (Podsakoff et al., 1986). Rather, it is mediated by those work experiences such as employee/supervisor relations, role clarity, and feelings of personal importance that are associated with these structural characteristics.

### **3.3.4 Occupational Stress (Role States) and Organizational Commitment**

As described in Meyer and Allen's model (Figure 3.1), change-related behaviors, such as change-related communication and occupational stress factors (i.e., job insecurity, role ambiguity, role conflict, etc.), are recognized as the role states that are antecedents of organizational commitment.

According to McGrath (1976), there is a potential for stress when an environmental situation is perceived as presenting a demand that threatens to exceed the person's capabilities and resources for meeting it, under conditions where he expects a substantial differentiation in the rewards and costs from meeting the demands versus not meeting them. It is therefore the person's perception of the demand rather than the demand itself that determines the degree of stress experienced, and this perception may be influenced by that person's self-perceived abilities and self-confidence.

The provision of employment security, particular in this day and age of organizational changes, characterizes a commitment by an employer to his or her employees. Norms of reciprocity and social exchange theory dictate that employees should return the commitment. This characterizes the exchange nature of the psychological contract between the employer and the employee. That is, in exchange for the employee's commitment to the organization, the employer provides employment security (Pfeffer, 1994). Hence, it can be assumed that organizational commitment would be difficult to sustain in an environment where job security was not ensured. In short, perceptions of job insecurity might tend to diminish attachment to work and organization.

Perceived workload or role overload entails work demands. It results when the job's demands exceed an employee's time and effort. Essentially the employee finds that there are just too many demands and an inadequate amount of time to complete the tasks and assignments. Likewise, role-based stress is defined as the different

behaviors (roles) perceived by employees on the job. Two behaviors that are commonly found include role conflict and role ambiguity. Porter and Steers (1973) identified role ambiguity and role conflict to be important antecedents that are negatively related to organizational commitment, both directly and indirectly.

Change-related communication is a key factor in influencing the phenomenon of perceived job insecurity. Moreover, ineffective internal communication is a major contributor to the failure of change initiatives (Hart et al., 2003). Communication can be used to reduce resistance, minimize uncertainty and gain involvement and commitment in the change process. This in turn improves morale and retention rates (Klein, 1996). Finally, role conflict and role ambiguity can also be reduced by providing timely feedback to employees regarding the changes.

### **3.3.5 Human Resources Practices (Management Practices and Work Experiences) and Organizational Commitment**

Scholars contend that many organizations adopt human resources practices in order to maximize employee commitment. As illustrated in Meyer and Allen's model (Figure 3.1), management practice factors (i.e., selection, training, compensation, etc.) and work experience factors (i.e., job scope, participation, relationships, support, justice, etc.) are recognized as the antecedents to organizational commitment.

At the organizational level, several aspects of management practices in the organization are found to be predictive of organizational commitment. Specific management issues such as pay, strategic decision-making, training, etc. have been found to have significant positive correlations between perceptions of the fairness of the policy and commitment. At the individual level, power, information, reward, and training help people to make better decisions, to use their expertise, and to ensure that they will exercise their power in ways that they will contribute to organizational effectiveness and commitment.

The majority of studies have focused on variables that fall into the very broad category of work experience, and there are some strong and consistent correlations with commitment across the studies. Specifically, across many different samples of employees, organizational commitment has been positively correlated with

empowerment, participation, communication, supervisory relations, and co-worker relationships. For instance, Iverson and Roy (1994) found that employees that have close ties to their co-workers and participate in interaction rituals are more satisfied with their jobs. Moreover, empirical studies have consistently found the effectiveness of the supervisor to be a significant factor that has both a direct and indirect affect on workers' organizational commitment (Krackhardt et al., 1981).

As a consequence, the influence of human resource practices on organizational outcomes such as organizational commitment has become important topic of research to date. Pfeffer (1994) described human resources practices as a means of achieving competitive advantages. He identified the following types of human resources practices as the ones that seem to characterize organizations that are effective in achieving a competitive advantage through their people: payment system, information sharing, participation, empowerment, and rewards and recognition.

According to Steers and Porter (1983), organizations that allow employees to participate in the decision-making process and distribute responsibility and authority throughout all levels of organizations develop employees with high organizational commitment. Employee perception of participative management makes employees realize their own duties in the organization (Allen and Meyer, 1990). Furthermore, organizations those allow employees or members to be involved in the decision-making process, both in planning and operating, and distribute decision-making power to all levels, develop employees that will commit to them (Hrebiniak and Allutto, 1992).

Organizations with high levels of power, information, rewards, and knowledge are associated with stronger morale, lower turnover, and stronger financial performance than organizations with lower levels. At the individual level, power, information, rewards, and knowledge help employees to make better decisions, to use their expertise, to reduce frustration and increase motivation and to ensure that they will exercise their power in ways that will contribute to organizational effectiveness. As concluded by Vandenberg et al. (1999), all of these components should be treated as a collective set of mutually reinforcing attributes.

Many scholars have found a close correlation between job satisfaction and organizational commitment. This type of human resource practice is more influenced

by daily work events and focuses on the specific task environment where day-to-day duties are performed (Mowday et al., 1979). Job satisfaction then reflects a response to the major or to certain aspects of the job as opposed to an attachment to the organization. Mowday et al. (1979) further suggested that organizational commitment is more stable over time than is job satisfaction. The daily events in the workplace affect the level of job satisfaction but do not necessarily result in employees seriously reevaluating their attachment to the organization as a whole. Commitment attitudes develop slowly but consistently over time, as employees reflect on their relationship with the organization. Satisfaction reflects a more immediate reaction to a specific and tangible aspect of the work environment and thus is less stable (Porter et al., 1974).

Since it will not be possible to cover all of the human resources management practices that have been associated with organizational commitment, in this review, hence, it is necessary to narrow the focus towards the human resource management practice identified most prominently within the general human resources management practice literature and those practices of greatest relevance within the specific context of academic institutions. On this basis, this research will focus on the practices relating to the payment system, rewards and recognition, power and empowerment, effective supervision, work co-operation, training and development, information sharing, and employee participation.

In sum, reform implementation leads to a sharp change in organizations that are affected by the public enterprise reform policy; as a consequence, major organizational changes are viewed as a threat to working relationships and routines. Resistance to organizational change increases, while job satisfaction and organizational commitment decreases (Davy et al., 1997).

### **3.3.6 Cultures and Values (Socialization Experience) and Organizational Commitment**

Many theorists have proposed that culture is an important antecedent to organizational commitment (Meyer and Allen, 1991; Wiener, 1982).

Wiener (1982) states that organizational culture is the basic determinant of all values. In the Wiener's model, feelings of obligation to remain with an organization

may result from the internationalization of normative pressures exerted on an individual through the society's values and beliefs. Society socialization precedes the organizational socialization process that starts when one enters the organization.

The position of Wiener (1982) is supported in Meyer and Allen's (1991) model of organizational commitment (Figure 3.1), which proposes cultural socialization as an antecedent to normative organizational commitment. They contend more specifically that the importance that collectivist cultures place on loyalty to the collective over the individual is likely to increase an employee's moral obligation to remain in an organization.

Employees' work-related beliefs and values affect their behaviors in organizations. Kamkwalala (2006) suggested, for instance, that the key dimension to successful organizational change is total commitment by management to support the desired beliefs and values that are important to its success. Management has to live by the organizational values and beliefs to demonstrate to employees that it is committed to making permanent cultural change. Furthermore, top management needs to ensure employees that all aspects of its organizational functions reflect their beliefs and values.

In addition, management should consider that successful organizations are known to devote time and money to training as the cornerstone of the effort to produce a culture that places a high premium on increased performance. This technique includes development of the statement of values and beliefs, communicating these values and beliefs to employees, and then using a management style that is compatible with the values and beliefs in order to increase the effectiveness outcome. Outlining values and beliefs at all levels in the entire organization and providing incentives and promotions that compatible with the beliefs and values will ensure the organization's long-term commitment.

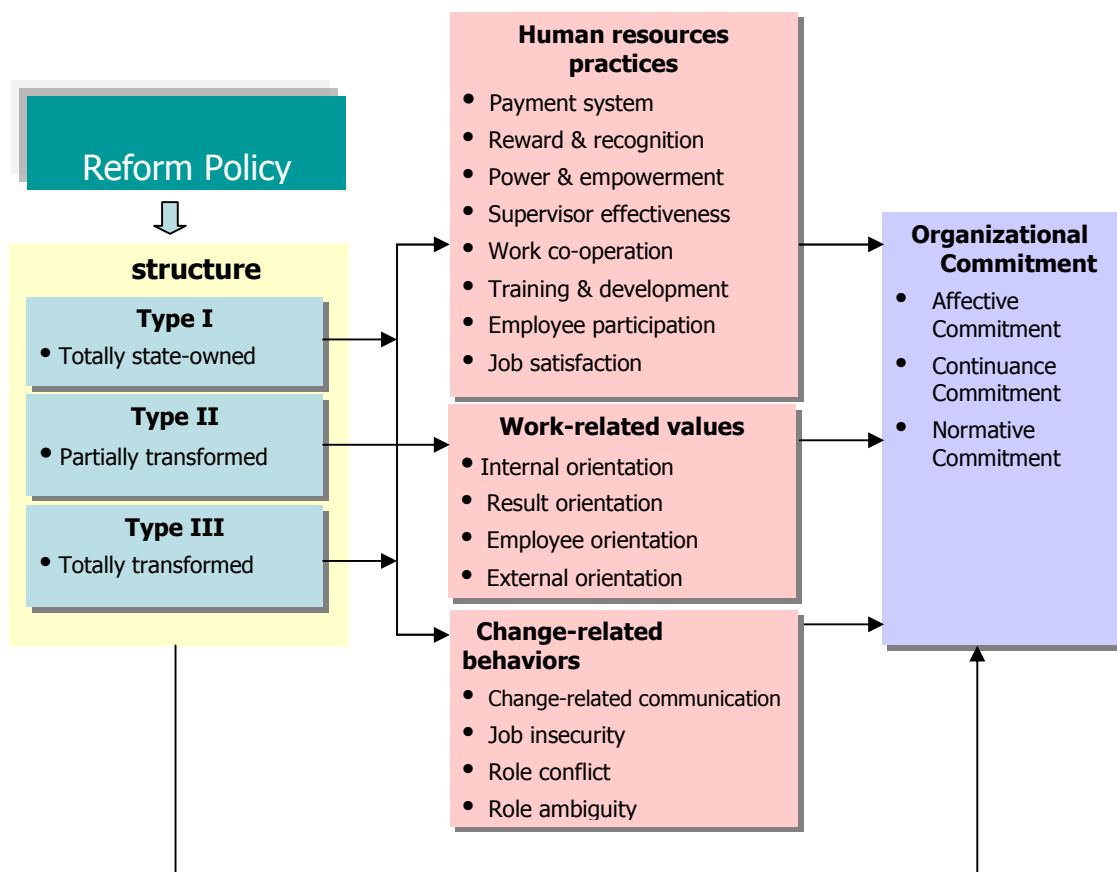
Specific values and beliefs influence employment effectiveness outcome (including commitment). This is the way in which management styles affect performance. The organizational culture (both values and beliefs) provides a fundamental basis for coordinated or uncoordinated action within an organization Kamkwalala (2006).



### 3.4 Conceptual Framework of the Study

This research examined the relationship between organizational commitment and certain categories of antecedents (Meyer and Allen, 1997).

The categories are organization characteristics (structure), management practices & work experiences (human resource management practices), role states (change-related behaviors), and socialization experience (work-related beliefs and values). The other antecedents (i.e. person-individual characteristics, environment, etc.) from the theoretical framework of Mayer and Allen (1997) might also contribute to various commitment types and ultimately to organization commitment. However, these antecedents are not the main focus of this study. Hence, the conceptual framework of this study is illustrated in the Figure 3.3 below.



**Figure 3.3** The Conceptual Framework of the Study (Model Analysis)

According to the model of analysis, furthermore, the theoretical framework, the category of antecedents, and the variables in this study can be summarized in the Table 3.2.

**Table 3.2** Analysis Framework and Potential Antecedents

Theoretical Framework	Category of Antecedents	Variables
Organizational Structure	Organizational Characteristics (Structure)	<ul style="list-style-type: none"> <li>· Type I: Totally state-owned enterprise</li> <li>· Type II: Partially transformed enterprise</li> <li>· Type III: Totally transformed enterprise</li> </ul>
Organizational Behavior	Role States (Change-related behaviors)	<ul style="list-style-type: none"> <li>· Policy perception</li> <li>· Change-related communication</li> <li>· Job insecurity</li> <li>· Role conflict</li> <li>· Role ambiguity</li> </ul>
Strategic Management	Management Practices & Work Experiences (HRM practices)	<ul style="list-style-type: none"> <li>· Payment system</li> <li>· Reward &amp; recognition</li> <li>· Power &amp; empowerment</li> <li>· Supervisor effectiveness</li> <li>· Work cooperation</li> <li>· Training &amp; development</li> <li>· Employee participation</li> <li>· Job satisfaction</li> </ul>
Organizational Culture	Socialization Characteristics (Values)	<ul style="list-style-type: none"> <li>· Performance orientation</li> <li>· People orientation</li> <li>· Organization orientation</li> <li>· External orientation</li> </ul>
Controls	Person-individual	<ul style="list-style-type: none"> <li>· Gender</li> <li>· Age</li> <li>· Family status</li> <li>· Education</li> <li>· Work specialization</li> <li>· Managerial position</li> <li>· Work experience</li> <li>· Income</li> </ul>

### 3.5 Research Hypotheses

The main purpose of this study is to examine organizational commitment in different types (structures) of transformed public enterprises under the State Enterprise Reform policy, whilst controlling for the energy industry. Hence, the

hypotheses developed primarily entail comparisons of organizational commitment and commitment antecedents between structural types of the transformed organization.

### **3.5.1 Comparing commitment between structures**

**Hypothesis 1 (H<sub>1</sub>):** Employees' affective commitment mean of organization type I is lower than that of organization type II and employees' affective commitment mean of organization type II is lower than that of organization type III.

**Hypothesis 2 (H<sub>2</sub>):** Employees' continuance commitment mean of organization type I is lower than that of organization type II and employees' continuance commitment mean of organization type II is lower than that of organization type III.

**Hypothesis 3 (H<sub>3</sub>):** Employees' normative commitment mean of organization type I is lower than that of organization type II and employees' normative commitment mean of organization type II is lower than that of organization type III.

### **3.5.2 Comparing antecedents across structures**

**Hypothesis 4 (H<sub>4</sub>):** The levels of change-related behaviors (policy perception, change-related communication, job insecurity, role conflict, and role ambiguity) differ in all types of energy public organizations.

**Hypothesis 5 (H<sub>5</sub>):** The levels of human resources management practices (payment system, reward & recognition, power & empowerment, supervisor effectiveness, work co-operation, training & development, employee participation, and job satisfaction) differ in all types of energy public organizations.

**Hypothesis 6 (H<sub>6</sub>):** The levels of work-related values (performance orientation, people orientation, organization orientation, and external orientation) differ in all types of energy public organizations.

### **3.5.3 Relationship between commitment and antecedents**

Furthermore, in order to explain the cause-effect relationship of the antecedents affecting the organizational commitment of the public energy enterprises in Thailand, the research hypothesis also includes:

**Hypothesis 7 (H<sub>7</sub>):** The change-related behavior factors that directly influence organizational commitment in the public energy enterprises of Thailand.

**Hypothesis 8 (H<sub>8</sub>):** The human resource management practice factors that directly influence organizational commitment in the public energy enterprises of Thailand.

**Hypothesis 9 (H<sub>9</sub>):** The work-related value factors that directly influence organizational commitment of the public energy enterprises in Thailand.

## **CHAPTER 4**

### **RESEARCH METHODOLOGY**

This research is mainly concerned with public energy enterprise reform in Thailand and organizational commitment as perceived by employees. This chapter addresses the research methodology used in conducting the study and sets forth the research design as well as explains the research instrument used to collect the data and information and tests the hypotheses. This part of the study also reviews the operational definitions, instruments for the data collection, sampling procedures, and administration of the questionnaire in terms of translation, pre-testing, and analyses of the collected data.

#### **4.1 Research Design**

This research is a descriptive and cross-sectional study. The study aims to apply both quantitative and qualitative techniques. The quantitative data can provide generalized and broad explanation, whereas qualitative data can render more in-depth information. Using both types of data, hence, the outputs of the research are more valuable. As a consequence, first the cross-sectional survey is conducted on the basis of the quantitative method in this research. Quantitative study uses questionnaires as a survey instrument for collection of data and information. Subsequently, in-depth interviews are followed up as a qualitative method in hopes that both of these research methods will provide explanatory enrichment concerning the overall variations in the organizational commitment of the public energy enterprises in Thailand.

In short, while quantitative analysis is mainly used, the qualitative technique is adopted for explanation of the research results. The use of both techniques will provide more reliable and valid information for data analysis according to the hypotheses of the study.

## 4.2 Population, Sampling, and Samples

### 4.2.1 Population

The target population in this study covered three public energy enterprises in Thailand which have been classified by the Ministry of Finance. Because of time and cost considerations, the Provincial Electricity Authority (PEA), which is classified as the same type as the Metropolitan Electricity Authority (MEA) (totally state-owned type), is not included in the target organizations.

As a result, the three public enterprises in the energy sector in this study are:

- 1) Metropolitan Electricity Authority (MEA),
- 2) Electricity Generating Authority of Thailand (EGAT), and
- 3) PTT Public Company Limited (PTT).

The populations of this study were all permanent employees from both managers and staff of all available departments of each selected public energy enterprise in Thailand. Hence, the unit of analysis of this study was at the individual level. Table 4.1 shows the number of all permanent employees - as of the end of 2007 - of selected public energy enterprises in this study.

**Table 4.1** The Three Organizations Comprising the Sample

<b>Organization Name</b>	<b>Type of Organization</b>	<b>No. of Employee</b>
Metropolitan Electricity Authority (MEA)	Totally state-owned enterprise, <b>organization Type I</b>	8,816
Electricity Generating Authority of Thailand (EGAT)	Partially transformed enterprise, <b>organization Type II</b>	24,209
PTT Public Company Limited (PTT)	Totally transformed enterprise, <b>organization Type III</b>	3,544
<b>Total (as of December 2007)</b>		<b>36,569</b>

#### **4.2.2 Sampling and Samples**

The selection of a representative sample was an important step in conducting this research. As mentioned in the preceding section, the research study included both qualitative and quantitative methods. Therefore, the selection of the sample was carried out in two steps; first the selection of the samples for in-depth interviews and then the selection of the sample for the survey questionnaires.

For the qualitative method, this study employed in-depth interviews of the relevant executives from three selected public energy enterprises. The objective of in-depth interviews was to obtain preliminary data to assist the researcher in focusing on the issues which required in-depth investigation. In-depth interviews can provide information which observation cannot.

In conducting the qualitative analysis, purposive sampling of key informants was employed. The key informants of this study were executives that had been with their organization for a long period of time and that had comprehensive knowledge about their organization. These executives were important sources of first-hand information.

The way in which to build a pool of informants in each selected organization was by asking the responsible departments to introduce the researcher to the target informants. The key informants in this study included executives involved in the public enterprise reform policy from related departments. As agreed by the responsible departments, the sample size of each organization was 10 key informants. The total of samples was finally 30 in all target organizations.

For the quantitative method, employee samples are permanent employees and the number of samples is based on the number of available departments of the three enterprises. According to Yamane's table, however, with a sample size at a 95 percent level of significance, with a standard error equal to .05, if the size of the population is 50,000 to 100,000, then the appropriate sample size would only require 400 samples.

Because of time and resource limitations, a stratified sampling method was employed. Nachmias and Nachmias (1987) defined the stratified random sample as "a probability sampling design in which the population is first divided into

homogeneous strata within each of which sampling is conducted.” This sampling method allows for equal representation of all organizations comprising the sample, as well as an appropriate representation of various departments within each organization. The expected sample size can be pre-determined (200 questionnaires for each of the three organizations, and the total samples are 600). In order to maintain the minimum of samples at the appropriate level, 300 questionnaires were distributed to each organization. The respondents from all departments at each organization were purposely selected to represent the employees.

### **4.3 Variables and Measurements**

The purpose of this research was to study organizational commitment in different types of the public energy enterprises during the transformation process while controlling for the energy industry. Therefore, the dependent variable in the study was determined by the employees’ organization commitment, while the independent variables were antecedences of organizational commitment.

#### **4.3.1 Dependent Variable**

Organizational commitment was the employee's psychological attachment to the organization. This refers to the extent the employees felt committed to the organization. That is, “the higher the commitment, the higher sense of belonging.” Individuals that have higher commitment tend to perform better. They may even perform more tasks than assigned (McShane and Von Glinow, 2007).

The employees’ organizational commitment is captured by the Dependent Variables on how employees feel committed to the organization. According to historical research, the organizational commitment in this study could be measured by the following indicators:

**Affective commitment** is described as “the relative strength of an individual’s identification with and involvement in a particular organization.” It refers to an employee’s emotional attachment to, identification with, and involvement in the organization and its goals.



**Continuance commitment** involves “profit association with continued participation and a ‘cost’ associated with leaving.” It is calculative and exchange-based in nature and refers to the costs associated with leaving the organization.

**Normative commitment** is “the internalized normative pressure to act in a way which meets organizational goals and interests.” It entails an employee’s desire to stay with the organization based on a sense of duty, loyalty, or obligation.

In order to measure the multiple dimensions of organizational commitment, the modified Meyer and Allen revised three-component organizational commitment measure scale (the Organizational Commitment Questionnaire) from Meyer and Allen (1997) was used.

The Organizational Commitment Questionnaire has received the most thorough and generally positive evaluation (Meyer and Allen, 1997). For instance, the internal consistency of the three scales has typically been estimated by using a coefficient alpha. Median reliabilities for the affective, continuance, and normative commitment scales are .85, .79, and .73, respectively. The factor structure of the commitment measures, moreover, has been examined in several studies using both explanatory and confirmatory analyses. For the most part, the results of both the explanatory and confirmatory studies provide evidence that suggests that affective, continuance, and normative commitment are indeed distinguishable constructs (Meyer and Allen, 1997). Finally, by demonstrating that the pattern of empirical findings matches the hypothesized pattern, further evidence is provided for the construct validity of the measures. The findings of the relevant studies discussed by Allen and Meyer (1996) indicate that they pertain to the construct validity of the measures. In general, the findings tend to be consistent with the prediction and add to confidence in the construct validity of the measures.

The modified questionnaire comprises 18 questions that gauge the 3 dimensions of affective commitment (AC), continuance commitment (CC) and normative commitment (NC). Each dimension of commitment is measured by a series of questions (7 for AC, 6 for CC, and 5 for NC) requiring responses on a five-point scale. The scores on each dimension are averaged for each respondent in order

to derive the final scores for the three dimensions of commitment. The three commitment scores are then averaged to derive the overall commitment score.

### 4.3.2 Independent Variables

The independent variables in this study concerned four major categories of antecedents to organizational commitment: organizational structure, change-related behaviors, human resource management practices, and work-related beliefs and values.

#### 4.3.2.1 Organizational Structure

As a structural type comparison was the primary purpose of this study; hence, the organizational structure (type) variable included one of the predicting or independent variables.

According to the objectives of the Master Plan, the state enterprise reform denotes reducing the role of the government while increasing that of the private sector in activities or asset ownership. In this context, both ownership and management control are the main variances of public enterprise reform. Hence, the various results of public enterprise reforms reflect different degrees of public and private roles in ownership and management control. In this cross-sectional analysis, there are three levels of transformed public organizations to be classified:

**Organization Type I:** Non-transformed enterprise (totally state-owned); in this type of organization, the state not only exerts absolute ownership of a public enterprise, but also sustains firm control on the enterprise and its resources. In this study, the Metropolitan Electricity Authority (MEA) represents the Type I organization while implementing the energy reform policy.

**Organization Type II:** Partially transformed enterprise; in this type of organization, the government sustains absolute ownership while it attempts to restructure the public enterprise through the sale of some assets or the development of joint ventures. In this study, the Electricity Generating Authority of Thailand (EGAT) represents the Type II organization while implementing the energy reform policy.

**Organization Type III:** totally transformed enterprise; in this type of organization, the state maintains a significant portion of the stakes through which it

can influence the management of the enterprise and receive profits. In this study, the PTT Public Company Limited (PTT) represents the Type III organization while implementing the energy reform policy.

#### 4.3.2.2 Change-Related Behaviors

Change-related behaviors refer to the factors that interact and influence job burnout during changes in the organization. In this study, the change-related behaviors that have been found in transformed organizations include: policy perception, change-related communication, job insecurity, role conflict, and role ambiguity.

**Policy perception** refers to the perceptions of the employees regarding the state enterprise reform policy as a means of changing the organizational environment to be compatible with effectiveness and efficiency.

**Change-related communication** is both an essential resource and a measure of the effectiveness of working cooperatively during the changes in organizations. Effective communications provide employees with an understanding of where the company and work unit have been so that employees can participate in a meaningful way and act responsibly.

**Job insecurity** refers to perceived powerlessness in maintaining desired continuity in a threatened job situation. It includes (1) degree of severity of threat to one's job and aspects of the work, (2) importance of the threatened job feature, (3) the negative effect of perceived threats on the entirety of the work situation, (4) the total of the aforementioned, and (5) a subjective sense of powerlessness. It is recognized as a work stressor that results in detrimental job attitudes and behaviors.

**Role conflict** is characterized as the conflicting demands and responsibilities placed on an employee. The employee knows what position he and she is hired for, but the assignments and tasks demanded thereof do not match. It is essentially performing job duties other than what they are hired to do.

**Role ambiguity** refers to the lack of information an employee receives about the job's duties and the expectations to perform them satisfactorily. It occurs when an individual is not clear about what is expected from him or her.

In order to measure the change-related behaviors, the adapted questions of Al-Harran (1996) and the modified Work Stressors Questionnaire used by Bersamin (2005) were applied. The 32 items of the combined questionnaire were rated on a five-point scale of five sub-concepts: reform policy perception, change-related communication, job insecurity, role conflict, and role ambiguity.

The change-related behaviors scales assess an individual's overall attitudes towards the state reform policy and perceptions of change-related communications in the organization developed by Al-Harran (1996). Reliability estimates for the measures range from .83 to .85, respectively.

The work stressor scales assess an individual's overall job insecurity, role conflict and role ambiguity. Reliability estimates for the measures range from .80, .82, and .83, respectively. An advantage of these scales is that many prior studies utilized them and the organizational behavior literature utilizes them as well (Fisher and Gitelson, 1993; Smith et al., 1993 quoted in Bersamin, 2005).

#### 4.3.2.3 Human Resource Management Practices

Human resource management practices refer to specific human resources policies and practices used by management with employees and also refer to the internal environment of the organization that influences employment commitment (effectiveness outcome). It provides concrete activities that are usually rooted or not rooted in the values of an organization.

**Payment system** refers to the system that promotes equity feelings because employees are paid for performance contributions.

**Rewards and recognition** refers to the system that is based on performance for ensuring employee involvement and increasing employee commitment to organizational success.

**Power and empowerment** refers to levels of participative decision-making. It means increasing a sense of ownership, self-management opportunities and the ability of teams to govern their own actions.

**Supervisor effectiveness** is the consideration given by the supervisor for the subordinate's feelings, problems and input while effectively transmitting their work goals, objectives, and information regarding the procedures to be followed.

**Work cooperation** refers to a mutually supportive work environment for the employees established by their co-workers.

**Training and development** refers to the program required for employees to perform their jobs and to understand the business, the work, and the complete system of the organization.

**Employee participation** is an overall management approach that is based on the beliefs that organizations should be structured from top to bottom in a manner that allows employees to actively participate in the operation of the business, including decision making and problem solving.

**Job satisfaction** refers to the extent the organization's members are gratified and satisfied with the organizational procedures and policies and with the work environment.

In order to measure the human resource management practices, three questionnaires were used. The payment system and employee participation were measured by a questionnaire developed by Boselie et al., (2001). Vandenberg et al.'s (1999) Measure was used to measure the following HRM practices: reward & recognition, power & empowerment, and training & development. Finally, job satisfaction, supervisor effectiveness and work cooperation were measured using a questionnaire developed by Pakerney (1997). Combining all three questionnaires, the 45 questions (each question was rated on five-point scale) consisted of eight dimensions: payment system, employee participation, reward and recognition, power and empowerment, training and development, supervisor effectiveness, work cooperation, and job satisfaction.

The original Boselie's scale cover another two components of HRM practices: employee participation and payment system. The items were scored with a 7 point Likert scale (with 1 equals 'strongly disagree' and 7 equals 'strongly agree'). Employee participation was measured by 4 items and had a Cronbach Alpha of .72, while payment system was measured with 5 items with a Cronbach Alpha of .76 (Boselie et al., 2001).

The original Vandenberg's scales cover three components of HRM practices: reward & recognition, power & empowerment, and training & development.

All items were measured on a four point Likert-like agree/disagree format. Higher scores indicated higher levels of each dimension. The Cronbach Alpha reliabilities for the three components of involvement reported by Vandenberg et al. (1999), based on a study of 3,570 participants across 49 organizations, were as follows: reward & recognition, .86; power & empowerment, .89; and training and development, .88).

The original Pokerney scales cover the last three components of HRM practices: job satisfaction, supervisor effectiveness, and work cooperation. As reported by Pokerney (1997), the job satisfaction scale contains eight items that have consistently formed a factor in a series of factor analyses conducted by the organization over a period of years. Estimates of the internal reliability of the scale have ranged from .89 to .96. In terms of validity, the construct is defined by the content of the items and demonstrates that the scale has a high degree of face or content validity. The supervisor effectiveness and work cooperation scales were developed from the survey instrument used in the Pokerney et al. (1992 quoted in Pokerney, 1997). As reported by Pokerney (1997), for reliability of the scale, a Cronbach Coefficient Alpha was computed as a measure of the internal consistency of items assigned to the factor. The ranges of coefficients were from .89 to .91 and demonstrated a high degree of internal consistency among the items for each variable.

#### 4.3.2.4 Work-Related Values

In this study, the researcher assumes that transitional culture is represented by the beliefs and values that manifest these values. While employees may differ in terms of their dominant beliefs and values, there are common dimensions according to which work-related values may be addressed.

**Performance orientation** refers to the employees' values concerning the responsibility for meeting objectives and results, and merit reward.

**People orientation** refers to the employees' values reflecting the extent of concern the organization shows for its members and their development, as well as the individual feeling that he or she belongs to a team.

**Organization orientation** refers to the employees' values which reflect openness of internal communication and co-operation between individuals and units.

**External orientation** refers to the employees' values dealing with company responsiveness to market opportunities and benchmarking.

In order to measure the work-related values, the Questionnaire developed by Cunha and Cooper (2002) was adapted. The modified questionnaire comprising 20 items (each item was rated on five-point scale) of four dimensions; internal organization, result orientation, employee orientation, and external orientation.

The original work-related values questionnaire was developed by Cunha and Copper (2002) based on Harrison's (1972) typology and Cooper's (1988) culture manifestations. It originally comprised 41 items, rated on six-point Likert-type scales. Cunha and Copper (2002) then submitted the 41 items to a principal components factor analysis in order to examine the underlying dimensions and applied three criteria to identify factors: (1) Eigenvalues greater than 1.5; (2) scree plots; and (3) factor loadings greater than 0.5. Four factors appeared non-trivial on the basis of Eigenvalues and Scree plots. After dropping the items with factor loading smaller than 0.5, the Varimax Rotation was used with the four factors. Finally, the final factors were the following: (1) performance orientation, comprising nine items reflecting responsibility for meeting objectives and results and merit reward, with Cronbach's Alpha of .83; (2) people orientation, comprising five items concerning the extent of concern the organization shows for its members and their development, as well as the individual feeling of belonging to a team, with a Cronbach Alpha of .76. (3) organizational orientation, a subscale composed of six items which reflect openness of internal communication and cooperation between individual and units, with a Cronbach Alpha of .8; and (4) market orientation, composed of four items dealing with company responsiveness to market opportunities and benchmarking, with a Cronbach Alpha of .73.

### **4.3.3 Control Variables**

According to Pfeffer (1983) quoted in Pfeffer (1994), demography is an important causal variable that affects a number of intervening variables and process and, though them, a number of organization outcomes. Therefore, some personal characteristics, including demographic characteristics (age, gender, education, marital

status, work specialization, managerial position, employment length, and incomes), could be correlated modestly with organization commitment. Because this study focuses on the commitment antecedents that may affect employees' commitment in three different types of public energy enterprises, the personal-individual characteristics are not the primary focus of this study, and all of the demographic variables in this study are also controlled.

In conclusion, Table 4.2 summarizes the research concepts, instruments, measurement scales, and attributes of measurement of the dependent and the independent variables used in the study.



**Table 4.2** Summary of Measuring Instruments

<b>Research Concepts</b>	<b>Instruments/ Authors</b>	<b>Subscales/ Variables</b>	<b>Operational Definitions</b>	<b>Descriptions/ Indicators</b>	<b>Sources</b>
Organizational Commitment	Meyer & Allen (1997)	• Affective Commitment (AC)	• It refers to an employee’s emotional attachment to, identification with, and involvement in the organization.	• How employees feel emotionally attached to, identify with, and are involved in the organization.	Part VI: item 6.8 – 6.12
		• Continuance Commitment (CC)	• It refers to the cost the employee associates with leaving the organization.	• How employees perceive the costs related to leaving their present organization compared to any perceived benefits.	Part VI: item 6.13 – 6.18
		• Normative Commitment (NC)	• It refers to the employee’s feelings of obligation to remain the organization.	• How employees view the senses of obligation and responsibly to continue employment in the organization.	Part VI: item 6.1 – 6.5
Role States (Change-related Behaviors)	Al-Harran (1996)	• Policy Perception	• It refers to the perceptions of the employees regarding the state enterprise reform policy as a means to change the organizational environment to be compatible with effectiveness and efficiency.	• Levels of agreement/ disagreement regarding the concepts of the state enterprise reform policy.	Part II: item 2.8 – 2.17
		• Change-related Communication	• It refers to both an essential resource and a measure of effectiveness of working cooperatively during the changes in organizations.	• Levels of communication that flow and that have been provided to employees when changes occur in the organization.	Part II: item 2.1 – 2.7

**Table 4.2** (Continued)

Research Concepts	Instruments/ Authors	Subscales/ Variables	Operational Definitions	Descriptions/ Indicators	Sources
Role States (Change-related Behaviors)	Bersamin (2005)	• Job Insecurity	• It refers to the perceived powerlessness to maintain desired continuity in a threatened job situation.	• Degree of severity of threat to one's job and aspects of the work; importance of the threatened job feature, the negative effect of perceived threats on the entirety of the work situation, and subjective sense of powerlessness.. • How the employee knows what position he and she is hired for and how the assignments and tasks demanded match. • How well an employee is clear about what the organization expected from him or her.	Part III: item 3.1 – 3.10
		• Role Conflict	• It is characterized as the conflicting demands and responsibilities placed on an employee.		Part III: item 3.11 – 3.15
		• Role Ambiguity	• It refers to the lack of information an employee receives about job duties and the expectations to perform them satisfactorily.		Part III: item 3.16 – 3.20
Work Experience & Management Practices (HRM Practices)	Boselie et al. (2001)	• Payment System	• It refers to the system that promotes equity feelings because employees are paid for performance contributions.	• Payments are marketable and equitable. Increments are based on job performance.. • The degree to which employees participate in setting goals and policies of the entire organization.	Part IV: item 4.1 – 4.5
		• Employee Participation	• It refers to practices that allow employees to actively participate in the operation of the business, including decision-making and problem solving.		Part IV: item 4.34 – 4.37

**Table 4.2** (Continued)

<b>Research Concepts</b>	<b>Instruments/ Authors</b>	<b>Subscales/ Variables</b>	<b>Operational Definitions</b>	<b>Descriptions/ Indicators</b>	<b>Sources</b>
Work Experience & Management Practices (HRM Practices)	Vandenberg et al. (1999)	• Reward & Recognition	• It refers to a system that is based on employees' performance for organizational success.	• Gives rewards to employees who perform well. Promotion is based on achievement.	Part IV: item 4.6 – 4.10
		• Power & Empowerment	• It refers to levels of participative decision-making.	• The degree to which jobs provide freedom and discretion to the individual in scheduling the work.	Part IV: item 4.11 – 4.15
		• Training & Development	• It refers to programs required for employees to perform their jobs and to understand the business, work, and the complete system of the organization.	• Employees receive sufficient training & development programs as well as training opportunities.	Part IV: item 4.28 – 4.33
		• Supervisor Effectiveness	• It refers to the consideration given by supervisor regarding the subordinate's feelings, problems and input.	• How employees view their supervisors in all aspects.	Part IV: item 4.16 – 4.22
	Pokerney (1997)	• Work Cooperation	• It refers to a mutually-supportive work environment for employees, established by their co-workers.	• Employees' feelings about the people in coordination and cooperation at work.	Part IV: item 4.23 – 4.27
		• Job Satisfaction	• It refers to the extent the organization's members are gratified & satisfied with organizational procedures & policies, and with the work environment.	• Positive attitudes and satisfaction of employees towards the current jobs and work in the organization.	Part IV: item 4.38 – 4.45

**Table 4.2** (Continued)

<b>Research Concepts</b>	<b>Instruments/ Authors</b>	<b>Subscales/ Variables</b>	<b>Operational Definitions</b>	<b>Descriptions/ Indicators</b>	<b>Sources</b>
Socialization Characteristics (Work-related Values)	Cunha & Cooper (2002)	• Performance Orientation	• It refers to the employees' values concerning responsibility for meeting objectives and results, and merit reward.	• Levels of responsibility for meeting objectives and results and merit reward.	Part V: item 5.1 – 5.6
		• People Orientation	• It refers to the employees' values reflecting the extent of concern the organization shows for its members and their development, as well as the individual's feeling of belonging to a team.	• Levels concerning the extent of concern the organization shows for its members and their development.	Part V: item 5.7 – 5.11
		• Organization Orientation	• It refers to the employees' values which reflect openness of internal communication and co-operation between individuals and units.	• Levels of reflecting openness of internal communication and cooperation between individual and units.	Part V: item 5.12 – 5.16
		• External orientation	• It refers to the employees' values dealing with company responsiveness to market opportunities and benchmarking.	• Levels dealing with responsiveness to market opportunities and benchmarking.	Part V: item 5.17 – 5.20
Organizational Structure	Own items	Transformation Type	• It is refers to three major types of public energy enterprises resulting from the state enterprise reform policy in Thailand.	• Levels of transformation in the organization: type I (totally state-owned), type II (partially transformed) , or type III (totally transformed).	Part I: Item 5

## **4.4 Data Collection Procedures**

In order to examine the organizational commitment of public energy enterprises and the effects of the state enterprise reform policy in Thailand, two major approaches, quantitative and qualitative, are employed. Using both measurements, the survey questionnaire and in-depth, semi-structured interviews, allowed for a thorough examination of the effects of the state enterprise reform on the organizational commitment of the employees. The use of two methods also allows an examination of the processes from different perspectives, thus implying greater validity than that which could have been obtained with a single method. The survey questionnaire, however, constitutes the main data collection procedure for this study. This section, hence, describes the major steps in acquiring the data and information for the study.

### **4.4.1 Sources of Data**

Descriptive, analytical, and exploratory approaches are used to examine the dissertation topic. The design of this investigation demands information from different sources. The data for this study are mainly drawn from three important sources. The first source for data collection is public materials. The second primary source for data collection is an in-depth interview with executives of public energy enterprises. The third source for data collection is a survey questionnaire distributed to a sample of employees of public energy enterprises. These three sources of data collection are explained in more detail in the following pages.

#### **4.4.1.1 Library Research**

This source of gathering information began with a review of the literature related to the subject under investigation. In fact, the literature was useful in setting the topic of this dissertation. An analysis of the theories and practices of public enterprises and other related concepts in the literature formed the basis for building the conceptual framework and influencing the framework of the study. The researcher relied chiefly on the library of the National Institute of Development Administration, websites on energy information, as well as libraries of related governmental energy authorities and energy enterprises in Thailand. In addition, the theoretical framework of this study was based on an extensive review of the literature using the available

books, periodicals, professional journals, dissertations, and government documents and reports.

#### 4.4.1.2 In-Depth Interview (Qualitative Method)

The first primary source of gathering data in this study was the in-depth interview (qualitative method). This method was conducted in order to explore the attitudes and perceptions of employees towards an ongoing state reform program. The objective of the in-depth interviews was to obtain more details and insights from personal interviews to supplement and explain the results from the quantitative analysis.

Additionally, the in-depth interview can unearth preliminary issues to help the researcher focus on issues which required in-depth investigation and to transfer the framework to **an a priori** theoretical model for empirical testing. It can also provide information which observation does not. Open-ended interviews can be conducted with a number of key informants to recreate every variable concerned and to understand the causal relationships and linkages inherent in the process of determinant identification.

The approach in this study focused on the selected executives that are responsible for policy making and implementation and top management of each selected enterprise. The qualitative method is intended to understand and investigate their perception and attitude towards the reform scheme. As agreed by the responsible department in each organization, 10 executives had been listed, for a total of 30 samples.

Data collection included the use of an open-ended interview with key informants and an analysis of the received data. The selected interviewees were asked a list of questions, based on model of analysis, via telephone personal contacts appointments. During the interviews with several key informants, the interview questions outline (see Appendix D) was used as a guideline to ensure that the researcher asked questions in the same way.

In interviewing all key informants, the interview questions were open-ended in order to encourage interviewees to articulate in-depth viewpoints extensively and freely on the particular issues. The interview questions may not have followed the

numerical sequence in the interview form. The sequence and number of inquiries were changed and adapted during the interview depending on the convenience of the interviews. Even though the responses to each question as well as many additional comments made by the interviewees were noted on paper, the researcher did tape-record some interviews (permitted in advance) in order to ensure the accuracy and completion of the responses.

All interviews were conducted in Thai and each interview lasted from one and a half hours to three hours. These interviews took place at the respondents' workplaces. Even though most of the key informants were not sensitive when they were interviewed, due to the ethics of the researcher, the information gained from the informants was treated in strict confidence. The in-depth interviews of the key informants began at the beginning of January 2008, and data collection ended on May 2008.

#### 4.4.1.3 The Survey Questionnaire (Quantitative Method)

The second primary source of gathering data for this study was the questionnaire survey research method. The questionnaire was designed based on the variables defined in the study. The objective of any questionnaire was to gather the data and information on the current situation and practices and to make inquiries regarding existing attitudes and opinions on the subject under investigation. The questionnaire can be employed for describing a population, developing and testing hypotheses, and explaining causal phenomena and relationships. The questionnaire is one of the best tools to collect systemic answers for a variety of questions and problem inherent to a specific object (Warwick and Liniger, 1975).

In this context the data required for this study were mainly gathered through the use of one questionnaire to elicit the perceptions of the employees of public energy enterprises toward aspects of organizational commitment and in relation to public enterprise reform (see Appendix B and C). The questionnaire was constructed and developed based on the relevant information from the literature. The questionnaire was specifically formulated and relied mainly on the organizational studies found in the literature, such as the Organizational Commitment Questionnaire (Meyer and Allen, 1997), the modified Work Stressors Questionnaire (Bersamin,

2005), the Human Resource Management Practice Questionnaires (developed by Vandenberg et al., 1999; Boselie et al., 2001; Pokerney, 1997), the Work-Related Values Questionnaire (Cunha and Cooper, 2002), and other related materials dealing with the differences between public and private organizations.

For the sake of simplicity, the questionnaire used a Likert-type scale since it was relatively easy to construct, gave ordinal-level data on the subject under study, had good test reliability, and was a good tool to obtain work attitudes and perceptions for the subject under investigation. The items and statements in the questionnaire, except for four questions in the last part, were closed-ended, and the respondents were asked to check one of five points on a Likert scale.

The questionnaire was designed to obtain the information needed to test the hypotheses of this study and to answer the research questions. The questionnaire consists of seven parts. The first part of the questionnaire was concerned with collecting the demographic data of each participant in this study. This first part contains ten questions which elicit background information about the respondents and the organizations under study. In this study, the questions are related to the gender, age, level of education, and specialization of the respondents, their experience or length of time working in their organization, and the type of organization which the respondents are working for. For these questions, each respondent simply selected one of the provided answers that corresponded to the category that best described him or her.

The second to the fifth part of the questionnaire elicited the employee's opinions and perceptions towards all independent variables in this study, including organizational changes, change-related behaviors, human resources practices, and work-related values and beliefs. This portion of the questionnaire constituted 102 informational items. In these items, the respondents were asked to circle one of five points on a Likert scale ranked 1 to 5 for the following respectively; strongly disagree, disagree, neither agree or nor disagree, agree, and strongly agree.

With relation to the structure dimensions, items 2.1 to 2.17 were designed to evaluate the perceptions of employees towards changes in their organization. The first ten items were concerned with the issue of their perceptions of



the reform policy. Items 2.11 through 2.17 were established to measure the change-related communications in their organizations.

Item 3.1 through 3.10 were designed to assess the employees' perceptions on job insecurity when changes were made in their organization and to identify the level of workload that was perceived by employees during the changes. Item 3.11 to 3.15 measured role conflicts, while items 3.16 to 3.20 assessed role ambiguity regarding changes in the respondents' organizations.

With regard to human resources practice variables, items 4.1 through 4.5 were designed to assess the payment system. Items 4.6 through 4.10 were asked to measure rewards and recognitions. Moreover, items 4.11 to 4.15 measured power and empowerment level, whereas items 4.16 to 4.22 measured the effectiveness of the respondents' supervisors. Work cooperation was designed by using items 4.23 to 4.27. In the meantime, items 4.28 to 4.33 were used to assess the level of trading and development in their organization. Employee participation level was assessed by answering items 4.34 to 4.37. Finally, items 4.38 through 4.45 required the respondents to identify the level of employee satisfactions in the organization.

Work-related values and beliefs were measure in part five. Performance, people, organization, and external orientation sub-concepts were determined by responding to items 5.1 to 5.6, 5.7 to 5.11, 5.12 to 5.16, and 5.17 to 5.20, respectively.

The sixth part of the questionnaire was the most important. Here, employees' opinions and perceptions toward the three aspects of organizational commitment, as mentioned in the operational definitions given in the opening of this chapter, were elicited. This portion of the questionnaire constituted 18 informational items. Items 6.1 through 6.7 were designed to measure the level of the affective commitment of the employees, while items 6.8 though 6.13 were asked to assess the employees' continuance commitment level. Finally, a normative commitment scale was used via items 6.14 through 6.18. In these items, the respondents were asked to do the that they did for parts two to part five: circle one of five points on a Likert scale ranked 1 to 5 for the following respectively: strongly disagree, disagree, neither agree or nor disagree, agree, and strongly agree.

The major purpose of the final part of the questionnaire was to give the respondents' opportunity to express their opinions freely and to add their own opinions to improve the organizational commitment in their organizations. This part consisted of three open-ended questions and one item for suggestions and recommendations.

#### **4.4.2 Obtaining Approval from the Concerned Authorities**

The intent of the researcher was to distribute the questionnaires to the respondents directly and personally and to conduct the interpersonal interviews with the key informants in order to ensure a high response rate and to reduce errors and misunderstandings. In order to initiate contact and to obtain the agreement to participate in this study officially among these selected public energy enterprises, the Doctoral Program in Development Administration (International) provided official letters (see Appendix A) signed by the Advisory Chairman of the Dissertation to explain the purpose of the study and to invite selected public energy enterprises to participate and cooperate and to distribute the questionnaires in their organizations. Nonetheless, during the preliminary personal contacts with the target public energy enterprises, the researcher was informed that distributing the questionnaires as well as interviewing key informants by the researcher was not allowed.

To gain support and to secure permission for this study, the researcher requested appointments with high ranking executives for approval. In some organizations, the researcher conducted a Microsoft PowerPoint format presentation of the research mentioning the significance, objectives, and benefits of the study to the key executives in charge of the human resources in their organizations. All questions rising from the meeting had been clearly answered until satisfaction was achieved. Finally, the researcher obtained support as well as permission to conduct this research in the organizations. The key informants for the in-depth interviews were provided in accordance with the request by the researcher. Appointments for personnel interviews with executives had been arranged by the responsible or designated departments (Policy, Planning and Budget Department for the MEA and Human Resources Department for the EGAT and the PTT).

Nonetheless, for the survey questionnaire distribution, the researcher still had to rely on the responsible or designated departments in the enterprise to distribute the questionnaires to the potential respondents. The researcher agreed with the heads of these departments that the questionnaires would be collected during a period of six to eight weeks (because all enterprises would distribute and collect the questionnaires to and from their business units in provinces throughout the country).

#### **4.4.3 Administration of the Survey Questionnaire**

In conducting this study, the questionnaire moved through several important stages, such as translation, pretesting, and administration of the questionnaire in terms of distribution and response rate. These stages are explained in the following sections.

##### **4.4.3.1 Translation of the questionnaire**

The questionnaire was distributed in Thailand to examine aspects of organizational commitment resulting from public enterprise reform as perceived by the employees. This required the researcher to translate the questionnaire into the native language of Thai after the questionnaire was approved by the dissertation committee in its original English form. The questionnaire was finally translated into the Thai language, which is the official language in the country (see Appendix B).

##### **4.4.3.2 Pretesting of the questionnaire**

After finalizing the translated version of the questionnaire in Thai, pretesting the questionnaire was the next stage. The purpose of the pretest was to examine the content validity in terms of the face validity of the questionnaire items. As described by Nachmias and Nachmias (1987), face validity concerns the extent to which its measures what it appears to measure according to the researcher's subjective assessment. In order to ensure the appropriateness of the questionnaire, the pretest was conducted at the Energy Generating Authority of Thailand (EGAT) with a sample of 45 employees. The randomly selected employees were asked to identify vagueness in wording, misunderstood or misleading items, format, instructions, and the time spent in completing the questionnaire.

The results of the pretest were helpful in making refinements to the final version of the questionnaire. In these adjustments, the researcher revised and

changed part of the instructions of the questionnaire from six to seven parts to make it easier for the employees to understand. Another change was made to the questionnaire by reducing some questions where the selected respondents found them difficult to answer and where some of them were not completed. The researcher also added open-ended questions for the respondents' suggestions and recommendations. Finally, the final version of the questionnaire included 115 items (reduced from 127) and questions, and it required approximately 45 to 50 minutes to complete.

The final questionnaires were distributed and collected on three target public energy enterprises (MEA, EGAT, and PTT). The approach was focused on individuals in all departments of each organization. It was conducted through the Human Resources Department and/or the designated department where appropriate.

#### 4.4.3.3 Distribution of the survey questionnaire

In distributing the questionnaires (300 sets for each organization), a cover note was attached to the front page of each questionnaire explaining the objectives and the importance of the study. The cover letter stressed that the participants' responses were crucial to the success of this study. In order to ensure anonymity, the cover letter emphasized that the responses of the participants would be kept confidential and that the data would be utilized only for the purpose of the study. The cover letter also emphasized that there was no need for the participants to give their names.

A follow-up to encourage non-respondents to fill in and return the questionnaire was accomplished through personalized communications and multiple contacts with the heads of responsible departments in order to increase the response rate. These personal meetings and phone calls reemphasized that a high response rate was crucial to the success of the study. Hence, the process of the distribution and collection of the survey questionnaire took almost four months. The distribution of the survey questionnaire began at the beginning of February 2008, and data collection ended on June 2008.

## **4.5 Data Analysis for Quantitative Technique**

After completion of the data collection, the questionnaires were sorted for defects or missing data. Required editing was done. Furthermore, all of the data collected were recorded on the data-recording sheet. Thereafter the data were entered into computer using the SPSS (Statistical Package for Social Science) program for windows.

### **4.5.1 Evaluation of the Measures**

The research instrument was developed by using multiple-item measures to reduce the possibility that a single item might be misinterpreted. However, every multiple-item measure was subject to a purification process. This purification involved eliminating items that seemed to create confusion among respondents and items that did not discriminate between subjects with fundamentally different positions on the construct. Thus, in order to confirm the measures' applicability to this study, it was essential to examine their validity and reliability.

#### **4.5.1.1 Evaluation of Validity**

Validity addresses the issue of whether what researchers attempted to measure was actually evaluated. It refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration (Rubin and Babbie, 1993). In other words, it refers to the ability of a measuring instrument to measure accurately what it claims to measure.

In order to achieve validity, this study investigated content validity. Content validity focuses on the adequacy with which the domain of the concept under study is captured by the measure. The key to content validity lies in the procedures that are used to develop the instrument. These procedures include examining the literature and testing the internal consistency (Kidder and Judd, 1986). In this study, careful scrutiny of the literature and measures used in previous research, expert interviews, and particularly pretests were conducted to help ensure that only relevant items were included in the final instrument.

The external validity of the measurements can be derived from prior studies. As described in the preceding sections, the questionnaire was specifically formulated and mainly relied on the organizational studies found in the literature, including the Organizational Commitment Questionnaire (Meyer and Allen, 1997), the Work Stressors Questionnaire (Bersamin, 2005), the Human Resource Management Practice Questionnaires (developed by Vandenberg et al., 1999; Boselie et al., 2001; Pokerney, 1997), and the Work-Related Value Questionnaire (Cunha and Cooper, 2002). All of these studies tested and confirmed their measurements for both validity and reliability. The generalization of the measurements has been evidenced since these scales have been further utilized by many researches as well as the organizational behavior literature.

#### 4.5.1.2 Evaluation of reliability

The reliability of a measuring instrument is defined as its ability consistently to measure the phenomenon it is designed to measure. Reliability, therefore, refers to test consistency. The importance of reliability lies in the fact that it is a prerequisite for the validity of a test. On the other hand, for the validity of a measuring instrument to be supported, it must be demonstrably reliable. Any measuring instrument that does not reflect some attribute consistently has little chance of being considered a valid measure of that attribute (Ho, 2006). In short, reliability has to do with the quality of the measurement.

In order to determine the reliability of measurement instruments and to identify potential problems that might occur during the formal data collection, a pilot study (pre-testing) of the survey questionnaires and analysis procedures was conducted. Based on the answers from the pre-test questionnaire, the contents in the questionnaire were further refined and some were deleted.

In this study, the reliability of the multiple-item scales was estimated in the internal consistency by using Cronbach's Alpha Coefficient. This examination offered some initial information on the behavior the measurement and helped to point to problems, prone constructs, and questionable measures. A high value of alpha supports high reliability (maximum value being 1), while a low value indicates low reliability (minimum value being 0). It is recommended that reliability measures

should exceed 0.70 for a minimum degree of internal consistency (Nunnally, 1987). If the alpha is low, items with a correlation near zero or items that produce a substantial or sudden drop in the item-to-total correlation would be deleted. This is because those items might not be shared equally in the common core; thus, they should be eliminated.

In order to measure the reliability, the raw data were entered into the computer and the SPSS for windows statistics package was applied. A Cronbach's Alpha Coefficient of questionnaire reliability of antecedent variables and organizational commitment indicated a strong relationship. When considering the sub-variable of each variable, the correlation coefficients showed a moderate to strong relationship. The size of the coefficients of moderate relationship depended on a few items.

The results of the reliability for each of the concepts of organizational commitment and all antecedent variables are illustrated in Table 4.3 (first column). The Alpha coefficient tested for overall instrument and organizational commitments were significant and proved to be highly consistent. In each dimension of antecedent variables, the coefficients of alpha were high for almost all of the tested variables. However, for the dimensions of job insecurity and role conflict, the internal consistency method found that effectiveness and appropriate facilities and actions had low reliability.

In order to make the two dimensions of antecedents more reliable, the instruments have been modified as follows:

Policy perception: The Cronbach Alpha Coefficient method found that item 2.10 (the organization should be totally reformed) was inconsistent with other items. The item-total correlation of this item was the lowest among the others. This can reflect that the item had low correlation with other statements. Deletion of this statement was able to improve the scale alpha to be more reliable.

Job insecurity: The Cronbach Alpha Coefficient method found that item 3.4 (employees not performing are given many chances to improve) was inconsistent with other items. The item-total correlation of this item was the lowest among the others. This can reflect that the item had low correlation with other

statements. Deletion of this statement was able to improve the scale alpha to be more reliable.

Role conflict: The Cronbach Alpha Coefficient method found that the item of 3.12 (I work with two or more groups that operate differently) was inconsistent with the other items. This item had low item-total correlation; therefore, this statement had low correlation with the other items. Deletion of the item was able to improve the scale alpha to more reliable.

After deleting these three items from policy perception, job insecurity, and role conflicts, the reliability was improved, as presented in Table 4.3 (second column).

Finally, all of the measures in the survey exceeded the threshold of .70, with the exception of normative commitment (alpha=.67), job insecurity (alpha=.64), role conflict (alpha=.67), and people orientation (alpha=.63). As their alpha values were greater than .50, these measures were considered as acceptably reliable in general. As a result, those coefficients seemed satisfactory enough to be included in the further analysis of this study.



**Table 4.3** Reliability of Concept Measurements

Scales	Measured Items	Reliability (Cronbach Alpha)		Deleted Items
		Original	Improved	
<b>Commitment Variables:</b>				
<b>Organization commitment</b>		<b>0.81</b>	<b>0.81</b>	
Affective commitment	No. 6.8 – 6.12	0.83	0.83	
Continuance commitment	No. 6.13 – 6.18	0.79	0.79	
Normative commitment	No. 6.1 – 6.5	0.67	0.67	
<b>Antecedent Variables:</b>				
<b>Change-related behaviors</b>		<b>0.77</b>	<b>0.80</b>	
Policy perception	No. 2.8 – 2.17	0.86	0.92	(2.10)*
Communication	No. 2.1 – 2.7	0.88	0.88	
Job insecurity	No. 3.1 – 3.10	0.52	0.64	(3.4)*
Role conflict	No. 3.11 – 3.15	0.64	0.67	(3.12)*
Role ambiguity	No. 3.16 – 3.20	0.80	0.80	
<b>Human resource practices</b>		<b>0.95</b>	<b>0.95</b>	
Payment system	No. 4.1 – 4.5	0.73	0.73	
Reward and recognition	No. 4.6 – 4.10	0.86	0.86	
Power and empowerment	No. 4.11 – 4.15	0.86	0.86	
Supervisor effectiveness	No. 4.16 – 4.22	0.91	0.91	
Work cooperation	No. 4.23 – 4.27	0.86	0.86	
Training and development	No. 4.28 – 4.33	0.92	0.92	
Employee participation	No. 4.34 – 4.37	0.79	0.79	
Job satisfaction	No. 4.38 – 4.45	0.80	0.80	
<b>Work-related values</b>		<b>0.89</b>	<b>0.89</b>	
Performance orientation	No. 5.1 – 5.6	0.89	0.89	
People orientation	No. 5.7 – 5.11	0.63	0.63	
Organization orientation	No. 5.12 – 5.16	0.79	0.79	
External orientation	No. 5.17 – 5.20	0.85	0.85	

\*Note: Item 2.10 (the organization should be totally reformed), item 3.4 (employees not performing are given many chances to improve), and item 3.12 (I work with two or more groups that operate differently) were excluded from the analysis.

#### **4.5.2 Statistical Methods for Quantitative Data Analysis**

Statistical analyses were designed to empirically test hypotheses and to provide answers to the key questions formulated in Chapter 1. In this study, the SPSS for Windows statistical package was used for all quantitative data analyses.

The analysis can be divided into four steps.

Step 1: Descriptive statistics will be summarized in order to provide a basic understanding of the sample profile. The descriptive statistics refer to the statistical techniques used to summarize and describe a data set, and also to the statistics (measures) used in such summaries. Measures of central tendency (e.g. mean) and variation (e.g. standard deviation) are the main descriptive statistics.

Step 2: In order to examine the levels and types of commitment, the analysis of variance (ANOVA) and covariance (ANCOVA) is used.

Analysis of variance (ANOVA) is an important technique for analyzing the effect of categorical factors on a response. An ANOVA decomposes the variability in the response variable amongst the different factors. Depending upon the type of analysis, it may be important to determine: (1) which factors have a significant effect on the response, and/or (2) how much of the variability in the response variable is attributable to each factor.

In addition, the analysis of covariance (as ANCOVA) is a technique that sits between analysis of variance and regression analysis. It has a number of purposes but the two that are, perhaps, of most importance are: (1) to increase the precision of comparisons between groups by accounting for the variation on important prognostic variables; and (2) to "adjust" comparisons between groups for imbalances in important prognostic variables between these groups.

In order to test the Hypothesis<sub>1</sub> mentioned in Chapter 3 and to provide answers to research question 1, ANOVA was employed. ANOVA is designed to determine whether there are statistically significant differences in various commitment scores between three types of public energy enterprises. In addition, exploratory analyses of key demographic variables are also included in ANCOVA to explore whether structure type effects the levels and types of organizational commitment when controlling for such demographic variables.

Step 3: In order to test the hypotheses ( $H_4 - H_6$ ) as well as to answer the research question 2, the analysis of variance (ANOVA) is also employed to test these hypotheses. Antecedent variables are classified (as previously discussed in Chapter 3) as change-related behaviors, human resource management practices, and work-related values based on the theoretical framework. This classification allows for the test of hypotheses 4-6 regarding the relationships between all of the variables of the antecedents and the three types of organizational commitment.

Step 4: Lastly, in order to investigate the answer to the last research question (to determine the casual and affect relationship between the antecedents - change-related behaviors, human resource management practices, and work-related values - and the organizational commitment of the public energy enterprises in Thailand), as well as to test Hypotheses 7-9, stepwise regression and the structural equation model (SEM) were employed.

#### **4.5.3 Descriptions of Statistical Methods and Requirements**

In statistics, analysis of variance (ANOVA) is a collection of statistical models, and their associated procedures, in which the observed variance is partitioned into components due to different explanatory variables. It is used when the researcher is interested in whether the means from several (more than 2) independent groups differ. The requirements of this method include: (1) there must be only one independent variable; (2) there should be more than two levels for that independent variable; and (3) there must be only one dependent variable (Doncaster and Davey, 2007).

The analysis of covariance (ANCOVA) is a general linear model with one continuous outcome variable and one or more factors. ANCOVA is a merger of ANOVA and regression for continuous variables. ANCOVA tests whether certain factors have an effect on the outcome variable after removing the variance for which quantitative predictors (covariates) account. The inclusion of covariates can increase statistical power because it accounts for some of the variability. The method allows the researcher to assess the effects of each independent variable separately, as well as the joint effects or interaction of variables (Doncaster and Davey, 2007).

Multiple regression is a statistical technique through which one can analyze the relationship between a dependent or criterion variable and a set of independent or predictor variables. There are three major types of multiple regression techniques: standard multiple regression, hierarchical regression, and statistical (stepwise) regression. The types differ in terms of how the overlapping variability due to the correlated independent variables is handled, and who determines the order of entry of independent variables in the equation (Tabachnick and Fidell, 1989 quoted in Ho, 2006).

In stepwise regression, the method is used to examine the relationship between each type of organizational commitment as perceived and viewed by the employees on the commitment antecedents as provided and defined by the research. It should be noted that when each stepwise procedure is executed, the predictor variable that has the biggest simple correlation with the dependent variable enters the equation first. The procedure terminates when all variables are entered or when there are no more predictor variables available that make a statistically significant contribution to the regression (Ho, 2006).

Structural equation modeling (SEM) serves purposes similar to multiple regression, but in a more powerful way and which takes into account the modeling of interactions, nonlinearities, correlated independents, measurement error, correlated error terms, multiple latent independents (each measured by multiple indicators), and one or more latent dependents, also each with multiple indicators. The SEM may be used as a more powerful alternative to multiple regression, path analysis, factor analysis, time series analysis, and analysis of covariance. That is, these procedures may be seen as special cases of SEM, or, to put it another way, SEM is an extension of the general linear model (GLM) of which multiple regression is a part.

According to Garson (2008), the advantages of the SEM compared to multiple regression include more flexible assumptions (particularly allowing interpretation even in the face of multicollinearity), use of confirmatory factor analysis to reduce measurement error by having multiple indicators per latent variable, the attraction of SEM's graphical modeling interface, the desirability of testing models overall rather than coefficients individually, the ability to test models with multiple dependents, the

ability to model mediating variables rather than be restricted to an additive model, the ability to model error terms, the ability to test coefficients across multiple between-subjects groups, and the ability to handle difficult data. Moreover, where regression is highly susceptible to error in interpretation by misspecification, the SEM strategy of comparing alternative models to assess relative model fit makes it more robust.

In short, the SEM is an approach of statistic methodology to testing hypotheses about relations among observed and latent variables. Generally, the procedure of doing structural equation modeling involves model specification, estimation, and evaluation of fit, model modification, and interpretation.

For evaluation of the fit for the proposed model, this study takes the suggestions from Saris and Stronkhorst (1984), Bollen (1989), Browne and Cudeck (1993), Joreskog and Sorbom (1993) and Arbuckle (1995) that the proposed model be assessed for overall model fit as well as fit of internal structure.

For overall model fit measures, key criteria are measured.

**Chi-square** is the most common fit test. The chi-square value should not be significant ( $p\text{-value} \geq .05$ ) if there is a good model fit. A significant chi-square indicates lack of satisfactory model fit. That is, chi-square is a "badness of fit" measure in that a finding of significance means the given model's covariance structure is significantly different from the observed covariance matrix.

**The Goodness-of-fit index (GFI)** also varies from 0 to 1 but theoretically can yield meaningless negative values. A large sample size pushes GFI up. By convention, GFI should be equal to or greater than .90 to accept the model.

**The Adjusted goodness-of-fit index (AGFI)** is a variant of GFI which adjusts GFI for degrees of freedom. AGFI can yield meaningless negative values.  $AGFI > 1.0$  is associated with just-identified models and models with almost perfect fit.  $AGFI < 0$  is associated with models with extremely poor fit, or based on small sample size. AGFI should also be at least .90.

**The Normed fit index (NFI)** also known as the Bentler-Bonett normed fit index, or simply Delta1. The NFI was developed as an alternative to CFI, but one which did not require making chi-square assumptions. "Normed" means it varies from 0 to 1, with 1 = perfect fit. By convention, NFI values should be above .90.

**The Incremental fit index (IFI)** is relatively independent of sample size and is favored by some researchers for that reason. By convention, IFI should be equal to or greater than .90 to accept the model.

**The Comparative fit index (CFI)** compares the existing model fit with a null model, which assumes that the latent variables in the model are uncorrelated (the "independence model"). That is, it compares the covariance matrix predicted by the model to the observed covariance matrix, and compares the null model (covariance matrix of 0's) with the observed covariance matrix in order to gauge the percent of lack of fit which is accounted for by going from the null model to the researcher's SEM model. CFI close to 1 indicates a very good fit. By convention, CFI should be equal to or greater than .90 to accept the model, indicating that 90% of the covariation in the data can be reproduced by the given model.

**The Root mean square error of approximation (RMSEA)** is a popular measure of fit, partly because it does not require comparison with a null model and thus does not require the author to posit as plausible a model in which there is complete independence of the latent variables, as does, for instance, CFI. By convention there is good model fit if RMSEA is less than or equal to .05. There is adequate fit if RMSEA is less than or equal to .08.

**The Root mean square residuals (RMR)** refer to the mean absolute value of the covariance residuals. Its lower bound is zero but there is no upper bound, which depends on the scale of the measured variables. The closer RMR is to 0, the better the model fit. By convention there is good model fit if RMR less than or equal to .05.

**The Chi-square statistic comparing the tested model and the independent model with the saturated model (CMIN/DF)** varies from 0 to 1, with 1 = perfect fit.

For fit of internal structure, the following standards should be justified:

**1) Standard error**, for the measurement model, the test of parameter estimates of the observed variables should be significant. In case of significance, it means that the observed variables can effectively reflect the latent variable; and

**2) Square Multiple Correlation ( $R^2$ )**, the test of the structural equation model includes direction, magnitude, and  $R^2$  of parameters. Parameter estimates

## **CHAPTER 5**

### **FINDINGS AND RESULTS**

This chapter examines whether the public energy enterprises in Thailand operate in antecedents compatible with organizational commitment by analyzing the presence of three different types of employee commitment. The chapter also analyzes the relationship between investigated antecedents and all types of organizational commitment.

In order to organize the findings in sequential order, the data are reported in six sections. The first section describes the response rates of the survey. The next section provides a general descriptive of the sample characteristics. The third section analyzes the levels and types of organizational commitment in all three public energy enterprises. The next two sections present the descriptive statistics of antecedent variables and the results of the analysis of variance of their differences in all types of organizations, followed by finding the causal relationships between organizational commitment and the independent variables by employing a Structural Equation Model analysis. For the purpose of testing hypotheses, all tests of significance were conducted at a .05 level. Finally, the in-depth interviews or qualitative results in the study are presented.

#### **5.1 The Response Rate**

As explained in the sampling procedures section of Chapter 3, the researcher distributed 300 questionnaires to each selected public energy enterprise (total distributed questionnaires were 900). A total of 611 questionnaires were returned from three enterprises, representing a 67.9% response rate for this study. According to the research assistant, this response rate was influenced by the resistance of some respondents in returning the questionnaires. The resisting group claimed that they

were very busy from the process of preparing the budget for the new fiscal year and some officials refused to answer the questionnaires, believing that the questionnaires were disturbing their work. Some respondents just did not care about the questionnaire regardless of its contents.

After gathering these questionnaires, the researcher checked through them for non-response or incomplete answers. There were 22 questionnaires excluded for incomplete or unusable responses. As a result, a total of 589 questionnaires was considered usable for this study. This dropped from a 67.9% response rate to a 65.4% completion rate. Table 5.1 shows the number of questionnaires distributed, the response rate, and the number of usable questionnaires that were returned for all types of public energy enterprises.

**Table 5.1** Number of Questionnaires Distributed and Response Rate

<b>Organization</b>	<b>Number of Distributed Questionnaires</b>	<b>Number of Responses</b>		<b>Number of Usable Questionnaires</b>	
Type I	300	201	67.0%	194	64.7%
Type II	300	210	70.0%	204	68.0%
Type III	300	200	66.7%	191	63.7%
<b>Total</b>	<b>900</b>	<b>611</b>	<b>67.9%</b>	<b>589</b>	<b>65.4%</b>

## 5.2 Sample and Demographic Data

The first part of the questionnaire in the quantitative part was aimed at providing background information about the respondents. This part of the survey questionnaire then contained questions that elicited the general attributes of the selected samples. These questions described the demographic characteristics of respondents in terms of gender, age, marital status, education, specialization, managerial position, years of work, and monthly income. This section thus provided



descriptive statistics on the respondents of the totally state-owned, the partially transformed, and the totally transformed public enterprises analyzed by the respondents' attributes.

The following tables present the demographic characteristics of the respondents in terms of frequency distribution and percent frequency according to the terms of age, gender, marital status, education, specialization, managerial position, years of work, and monthly income.

### 5.2.1 Age of the Respondents

The data in Table 5.2 summarize the age of the respondents. The average age for the entire sample was 42.37, with a standard deviation (SD) of 8.76. The youngest respondent in the sample was 22, whereas the oldest was 60. The partially transformed public organization's average age (45.30) was the highest, while that of the totally state-owned organization and the totally transformed organization were 42.60 and 38.99, respectively. The results of the analysis of variances indicated that the different ages of the respondents were statistically different at levels of organizational commitment. It was evidenced that the higher the age level, the higher the levels of continuance and normative organizational commitment.

**Table 5.2** Respondents' Responses Analyzed by Age

<b>Organization</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>
All Organizations	42.37	8.76	22.00	60.00
Totally State-owned	42.60	8.06	24.00	59.00
Partially Transformed	45.30	8.40	22.00	60.00
Totally Transformed	38.99	8.69	24.00	59.00

### 5.2.2 Gender of the Respondents

The data in Table 5.3 describe the gender of the respondents. In terms of gender, there were more female respondents (61.1%) than male respondents (38.9%)

in all samples. This proposition was similar to the respondents' gender of totally transformed of the organization (59.2% female, 40.8% male). These proportions, however, were different in totally state-owned organizations (57.7% female, 42.3% male) and in partially transformed organizations (66.2% female, 33.8% male). The results of analysis of variances revealed no differences in organizational commitment in relation to the gender of the respondents.

**Table 5.3** Respondents' Responses Analyzed by Gender

Gender	Totally State-owned		Partially Transformed		Totally Transformed		All samples	
	n	%	n	%	n	%	n	%
Male	82	42.3	69	33.8	78	40.8	229	38.9
Female	112	57.7	135	66.2	113	59.2	360	61.1

### 5.2.3 Marital Status of the Respondents

In the overall sample, as presented in Table 5.4, more than half of the respondents were married (56.7%) though some (4.1%) were divorced. Many stayed single: 39.0%. It was observed that marital status composition was relatively equal in the totally transformed organization (48.7% married and 46.6% single), whereas most of the respondents were married in the other two public enterprises (54.1% and 66.7%); that is, for totally state-owned and partially transformed organizations, respectively. The result of the ANOVA tests indicated that organizational commitment was not different according to the marital status of the respondents in any of the types of public energy enterprises.

**Table 5.4** Respondents' Responses Analyzed by Marital Status

Marital Status	Totally State-owned		Partially Transformed		Totally Transformed		All samples	
	n	%	n	%	n	%	n	%
Single	84	43.3	57	27.9	89	46.6	230	39.0
Married	105	54.1	136	66.7	93	48.7	334	56.7
Divorced	5	2.6	11	5.4	8	4.2	24	4.1

### 5.2.4 Educational Background of the Respondents

The respondents were asked to indicate their formal educational background. The question of the respondents' education was classified from high school to the master/doctoral levels. As shown in Table 5.5, it was found that the majority of respondents had a bachelor's degree (59.8%) for totally state-owned enterprises and 54.9% for the partially transformed enterprise. For advanced degrees, however, the respondents of the totally transformed organization had the highest percent (79.1%) of master and doctoral degrees. Only 2.5% of all samples had secondary education and they all came from the partially transformed organization. Overall, it can be stated that the majority (90.6%) of respondents had a bachelor degree or higher. The results of the ANOVA tests indicated that organizational commitment differed by level of education for all types of public energy enterprises. They showed that the lower level of education of the respondents, the lower the level of the continuance organizational commitment type.

**Table 5.5** Respondents' Responses Analyzed by Level of Education

Educational Level	Totally State-owned		Partially Transformed		Totally Transformed		All samples	
	n	%	n	%	n	%	n	%
Secondary School	-	-	5	2.5	-	-	5	0.8
Diploma/Certificate	12	6.2	36	17.6	1	0.5	49	8.3
Bachelor Degree	116	59.8	112	54.9	39	20.4	267	45.3
Master/Doctoral	66	34.0	51	25.0	151	79.1	268	45.5

### 5.2.5 Specialization of the Respondents

With regard to work specialization, as presented in Table 5.6, the largest percentages of the respondents specialized in administration: 57.7% for totally state-owned organizations; 74.0% for the partially transformed enterprise, and 61.8% for the totally transformed organization. The respondents that were engineers and scientists accounted for the highest percentages (40.7%) in the totally state-owned organization and 36.6% in the totally transformed organization. Only 23.0% of respondents were engineers and scientists in the partially transformed organization. The result of the ANOVA tests indicated that there was no difference in organizational commitment of the employees in the professional (e.g., engineers) and administrative types of work specialization category.

**Table 5.6** Respondents' Responses Analyzed by Work Specialization

Specialization	Totally State-owned		Partially Transformed		Totally Transformed		All samples	
	n	%	n	%	n	%	n	%
Engineering/ Sciences	79	40.7	47	23.0	70	36.6	196	33.3
Administration	112	57.7	151	74.0	118	61.8	381	64.7

### 5.2.6 Managerial Level of the Respondents

In terms of managerial position, 26.1% of the entire sample reported that they hold a managerial position (middle and top management), whereas the remaining 72.3% indicated they do not (Table 5.7). It can be observed that only 1.0% of the top management level participated in this survey. Moreover, there was no top management from the totally state-owned organization that answered the questionnaire. The results of the ANOVA tests indicated that all types of organizational commitment (affective, continuance, and normative commitment) differed according to the managerial positions of the respondents. They revealed that employees from top managerial positions had higher commitment (affective and normative) than employees from middle and non-management. However, the

continuance commitment of the employees in top management was lower than that of the employees from middle and non-management.

**Table 5.7** Respondents' Responses Analyzed by Management Level

Managerial Position	Totally State-owned		Partially Transformed		Totally Transformed		All samples	
	n	%	n	%	n	%	n	%
Non-management	138	71.1	154	75.5	134	70.2	426	72.3
Middle management	54	28.9	43	21.1	51	26.7	148	25.1
Top management	-	-	3	1.5	3	1.6	6	1.0

### 5.2.7 Working Experience in the Organization

The data in Table 5.8 reveal the length of service each respondent had in the public energy enterprise. It is interesting to note that 82.5% and 84.8% of the respondents - from the totally state-owned and partially transformed enterprises - have been with their organization for more than ten years, compared to 57.6% of the respondents of the totally transformed enterprise. This could be attributed to the fact that the job security in these types of enterprises was enhanced because these employees were governed by civil service regulations. In the meantime, most of public organizations could not recruit new employees under the current civil personnel regulations. The result of the ANOVA tests indicated that the organizational commitment of the respondents differed according to their work experience. It revealed that the employees that have a longer stay in the organization had a higher level of both continuance and normative organizational commitment.

**Table 5.8** Respondents' Responses Analyzed by Work Experience

Years of Work	Totally State-owned		Partially Transformed		Totally Transformed		All samples	
	n	%	n	%	n	%	n	%
Less than one year	1	0.5	4	2.0	11	5.8	16	2.7
1-5 years	21	10.8	12	5.9	33	17.3	66	11.2
6-10 years	12	6.2	15	7.4	37	19.4	64	10.9
More than 10 years	160	82.5	173	84.8	110	57.6	443	75.2

### 5.2.8 Monthly Income of the Respondents

As illustrated in Table 5.9, the majority of all respondents (41.6%) earned an average salary from 25,001 to 50,000 Baht per month. The respondents from the partially and totally transformed organizations reported their incomes in higher proportions than those of totally state-owned organization. For instance, the percentages of employees that earned 75,001 – 100,000 baht per month were 18.8% and 14.7% in totally transformed and partially transformed enterprises respectively, whereas the employees that earned the same income of totally state-owned organization were only 7.2%. This finding had also been found in the higher income level group (more than 100,000 Baht a month). The result of the ANOVA tests indicated that affective organizational commitment differed according to the incomes of the respondents from all types of public enterprises. This showed that the higher income of the respondents, the higher the level of affective organizational commitment.

**Table 5.9** Respondents' Responses Analyzed by Income

Monthly Salary	Totally State-owned		Partially Transformed		Totally Transformed		All samples	
	n	%	n	%	n	%	n	%
	Less than 10,000 baht	3	1.5	2	1.0	-	-	5
10,000 – 25,000 baht	36	18.6	25	12.3	10	5.2	71	12.1
25,001 – 50,000 baht	103	53.1	66	32.4	76	39.8	245	41.6
50,001 – 75,000 baht	37	19.1	63	30.9	55	28.8	155	26.3
75,001 – 100,000 baht	14	7.2	30	14.7	36	18.8	80	13.6
More than 100,000 baht	1	0.5	12	5.9	14	7.3	27	4.6

All in all, this sample (N=589) represents a 40/60 distributed male-female ratio of respondents that are at the senior level in terms of both age and career years (average age is approximately 42 years old and average years of work in their organizations is more than 10 years) with high level of educations (more than 90% hold a bachelor degree and higher). The majorities of respondents are married, administrative types, at the non-management level, and earn an income between 50,001 – 75,000 baht per month.

Furthermore, the results of the ANOVA test indicated that organizational commitment differed according to age, level of education, managerial position, work experience, and the incomes of the respondents from all types of public energy enterprises.

### 5.3 Organizational Commitment Results

This section describes the sample attitude toward organizational commitment. It explores whether differences exist by organizational commitment levels and types among the three structural types of public energy organizations – totally state-owned, partially transformed, and totally transformed. The statistical analyses and results in

the section provide empirical evidence to test the hypotheses regarding different levels and types of organizational commitment among the three types of public enterprises.

The statistical analyses employed in this section include: (1) analysis of variance (ANOVA) in order to analyze the effects of categorical independent variables (antecedents) on the means of the continuous dependent variables (organizational commitment); and (2) analysis of covariance (ANCOVA) in order to analyze the effects of organizational structural types on the dependent variables (organizational commitment) while controlling for the effects of the demographic variables.

### **5.3.1 Overall Organizational Commitment**

The average overall commitment score for all samples is 3.62, with a standard deviation (SD) of .47. Data from Table 5.10 indicates that the average commitment score for the totally state-owned enterprise was the lowest (3.50 with SD of .46), whereas the average commitment scores for the partially transformed and totally transformed enterprises were equal in both organizations (3.68 with SD of .49 for Type II and 3.68 with SD of .44 for Type III). The result of the ANOVA tests indicated that the overall organizational commitment score statistically differed by organization types, given the  $F=9.41$  ( $P=.00$ ). In this study, the organizational commitment levels of organization Type II and Type III are higher in organization Type I.



**Table 5.10** ANOVA – Overall Commitment Scores

Source	n	Mean	SD	df	MS	F	P-value
All Organization	568	3.62	.47				
Organization Type				2	2.05	9.41	.000
Type I	187	3.50	.46				
Type II	193	3.68	.49				
Type III	188	3.68	.44				
Error				565	.22		
Total				567			

Because the ANOVA results show that there is no significant difference between organization Type II and Type III in the overall organizational commitment scores, various demographic variables might have played a role as covariates that obscure the effects. Hence, the relevance of explored demographic variables was used with analysis of covariance (ANCOVA). Table 5.11 reports the average overall commitment scores for the entire sample and the three types of organizations by demographic variables.

Managerial position as well as work experience (time spent in the organization) are the covariates that have a significant effect on overall commitment, whereas other demographic variables do not. When all covariates were controlled for, organizational types affecting overall commitment remain significant with an  $F=13.58$  ( $P=.00$ ). The ANCOVA results show that organization type effects also remain strong even when demographic variables are controlled for.

**Table 5.11** Mean – Overall Commitment Scores

Source	n	All samples		Type I		Type II		Type III		P-value
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
<b>Covariates</b>										<b>.000</b>
<b>Gender</b>	<b>568</b>									<b>.411</b>
Male	223	3.58	.43	3.51	.44	3.57	.44	3.65	.41	
Female	345	3.65	.49	3.49	.47	3.74	.51	3.70	.45	
<b>Age</b>	<b>553</b>									<b>.143</b>
21-30 years	70	3.43	.42	3.30	.36	3.47	.46	3.48	.42	
31-40 years	157	3.56	.45	3.45	.45	3.53	.52	3.66	.40	
41-50 years	217	3.67	.47	3.53	.46	3.69	.46	3.85	.42	
51-60 years	109	3.71	.49	3.58	.47	3.80	.51	3.65	.40	
<b>Education Level</b>	<b>568</b>									<b>.117</b>
Secondary School	5	4.10	.15	-	-	4.10	.15	-	-	
Diploma/Certificate	45	3.62	.46	3.55	.46	3.64	.49	3.70	-	
Bachelor Degree	256	3.65	.48	3.40	.45	3.70	.49	3.81	.45	
Master/Doctoral	262	3.58	.46	3.50	.46	3.60	.49	3.65	.43	
<b>Marital Status</b>	<b>567</b>									<b>.596</b>
Single	225	3.59	.49	3.44	.42	3.68	.56	3.66	.47	
Married	319	3.62	.45	3.52	.48	3.66	.44	3.68	.41	
Divorced	23	3.87	.50	3.88	.29	3.87	.70	3.87	.34	
<b>Work Specialization</b>	<b>557</b>									<b>.690</b>
Engineering/Sciences	192	3.57	.46	3.51	.44	3.59	.56	3.63	.42	
Administration	365	3.64	.47	3.47	.47	3.71	.47	3.71	.44	

**Table 5.11** (Continued)

Source	n	All samples		Type I		Type II		Type III		P-value
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
<b>Managerial Position</b>	<b>560</b>									<b>.031</b>
Non-management	408	3.59	.48	3.44	.46	3.64	.50	3.68	.45	
Middle management	146	3.69	.42	3.64	.43	3.77	.43	3.69	.40	
Top management	6	3.90	.50	3.49	.46	3.94	.49	3.86	.62	
<b>Work Experience</b>	<b>568</b>									<b>.040</b>
< 1 year	16	3.44	.48	3.95	-	3.47	.37	3.38	.52	
1-5 years	66	3.49	.44	3.33	.50	3.49	.48	3.59	.38	
6-10 years	60	3.45	.47	3.24	.50	3.42	.51	3.52	.44	
> 10 years	426	3.67	.46	3.54	.44	3.72	.49	3.79	.41	
<b>Monthly Income</b>	<b>563</b>									<b>.267</b>
< 10,000 baht	5	3.45	.41	3.51	.50	3.36	.38	-	-	
10,000 – 25,000 baht	68	3.49	.51	3.42	.51	3.60	.52	3.44	.52	
25,001 – 50,000 baht	235	3.57	.44	3.48	.43	3.60	.47	3.65	.44	
50,001 – 75,000 baht	150	3.66	.47	3.54	.51	3.70	.47	3.68	.42	
75,001 – 100,000 baht	78	3.76	.43	3.66	.41	3.80	.44	3.77	.43	
> 100,000 baht	27	3.75	.52	3.77	-	3.73	.67	3.76	.40	

### 5.3.2 Three Dimensions of Commitment

In order to investigate the relationships between the three types of organizational commitment – affective, continuance, normative - and between the demographic variables of the respondents, analysis of variance (ANOVA) was employed. The ANOVA results and the average affective commitment (AC), continuance commitment (CC), and normative commitment (NC) scores for the entire sample and three types of organization are provide in Table 5.12, 5.13, and 5.14, respectively.

Table 5.12 indicates that the affective organizational commitment score statistically differed by organization type, given the  $F=22.55$  ( $P=.00$ ). In this study, organizational commitment level of organization Type III (4.06 with SD of .53) is higher than organization Type II (3.88 with SD of 3.88) and in the meantime, organizational commitment level organization Type II is higher than organization Type I (3.62 with SD of .70).

**Table 5.12** ANOVA – Affective Commitment Scores

Source	n	Mean	SD	df	MS	F	P-value
All Organization	579	3.85	.66				
Organization Type				2	9.26	22.55	.00
Type I	191	3.62	.70				
Type II	200	3.88	.65				
Type III	188	4.06	.53				
Error				576	.41		
Total				578			

In contrast, the result of the ANOVA tests in Table 5.13 reported that only the continuance commitment score did not statistically differ by organization type, given the  $F=.66$  ( $P=.51$ ).

**Table 5.13** ANOVA – Continuance Commitment Scores

Source	n	Mean	SD	df	MS	F	P-value
All Organization	581	3.34	.71				
Organization Type				2	.34	.66	.51
Type I	191	3.34	.64				
Type II	200	3.39	.72				
Type III	190	3.30	.77				
Error				578	.51		
Total				580			

For the normative organizational commitment type, Table 5.14 reports that the normative commitment score statistically differed by organization type, given the  $F=9.73$  ( $P=.00$ ). That is, the normative commitment level of organization Type II and Type III is higher than that in organization Type I, while there is no difference between Type II and Type III. It is noted that the results of the NC are very similar to the ANOVA results concerning overall commitment, as seen in Table 5. 10.

**Table 5.14** ANOVA – Normative Commitment Scores

Source	n	Mean	SD	df	MS	F	P-value
All Organization	584	3.66	.62				
Organization Type				2	3.65	9.73	.00
Type I	193	3.52	.57				
Type II	201	3.79	.63				
Type III	190	3.69	.62				
Error				581	.37		
Total				583			

In sum, from Tables 5.12 to 5.14, it can be observed that affective commitment is consistently higher than both continuance and normative commitment for the entire sample as well as all structural types of organization. Among three types

of organizational commitment, only the continuance commitment score did not differ for the three types of public enterprises.

In order to further explore organization type effects while controlling for the demographic variables, an ANCOVA was performed on three types of organizational commitment (AC, CC, and NC). Table 5.15 provides the average AC scores for the entire sample and three types of organization. Almost all of the ANCOVA results showed that only managerial position variable, the covariates, had a significant effect on affective commitment. Moreover, when all covariates were controlled for, organization types affecting commitment remained significant with an  $F=18.24$  ( $P=.00$ ). The ANCOVA results show that organization type effects also remain strong even when demographic variables are controlled for.

The average continuance commitment scores for the entire sample and three types of organizations are presented in Table 5.16. Unlike overall commitment and affective commitment, the ANCOVA results for continuance commitment indicated that even when demographic variables were controlled for, there was not a statistically significant difference between the organization types in their level of continuance commitment. Furthermore, the results also showed that significant effects of all demographic variables on continuance commitment did not exist.

Lastly, the average normative commitment scores for the entire sample and three types of organizations are provided in Table 5.17. Managerial position and income are the covariates that have a significant effect on normative commitment. When all covariates are controlled for, organization type effect on normative commitment remains significant, with an  $F=13.93$  ( $p=.00$ ). As discussed previously, the ANOVA results of normative commitment are statistically significant (employees' NC of organization type II and type III was significantly higher than that of organization type I). The ANCOVA results show that organization type effects also remain strong even when demographic variables are controlled for.

**Table 5.15** Mean – Affective Commitment Scores

Source	n	All samples		Type I		Type II		Type III		P-value
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
<b>Covariates/Main effects</b>										<b>.000</b>
<b>Gender</b>	<b>579</b>									<b>.423</b>
Male	225	3.88	.64	3.57	.70	3.75	.63	4.08	.46	
Female	354	3.85	.67	3.65	.71	3.94	.66	4.04	.58	
<b>Age</b>	<b>564</b>									<b>.636</b>
21-30 years	70	3.73	.56	3.38	.43	3.69	.59	3.91	.54	
31-40 years	160	3.79	.68	3.49	.45	3.76	.73	4.03	.52	
41-50 years	222	3.87	.68	3.67	.73	3.86	.65	4.22	.51	
51-60 years	112	3.94	.66	3.75	.64	4.04	.64	3.97	.53	
<b>Education Level</b>	<b>579</b>									<b>.754</b>
Secondary School	5	4.31	.27	-	-	4.31	.27	-	-	
Diploma/Certificate	49	3.69	.66	3.42	.67	3.76	.64	4.42	-	
Bachelor Degree	260	3.84	.68	3.67	.71	3.91	.64	4.12	.56	
Master/Doctoral	265	3.88	.64	3.56	.70	3.94	.71	4.04	.53	
<b>Marital Status</b>	<b>578</b>									<b>.325</b>
Single	227	3.83	.67	3.58	.68	3.85	.69	4.07	.55	
Married	327	3.84	.65	3.62	.72	3.86	.61	4.06	.52	
Divorced	24	4.17	.64	4.14	.63	4.15	.90	4.21	.50	
<b>Work Specialization</b>	<b>567</b>									<b>.516</b>
Engineering/Sciences	194	3.79	.65	3.59	.68	3.77	.69	4.03	.49	
Administration	373	3.88	.67	3.62	.73	3.93	.64	4.07	.56	

**Table 5.15** (Continued)

Source	n	All samples		Type I		Type II		Type III		P-value
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
<b>Managerial Position</b>	<b>571</b>									<b>.002</b>
Non-management	418	3.79	.68	3.51	.71	3.82	.66	4.05	.56	
Middle management	147	3.97	.57	3.89	.63	4.00	.61	4.04	.45	
Top management	6	4.76	.37	3.62	.71	4.71	.49	4.80	.32	
<b>Work Experience</b>	<b>579</b>									<b>.364</b>
< 1 year	16	3.82	.69	4.00	-	3.64	.47	3.87	.80	
1-5 years	66	3.74	.65	3.36	.75	3.69	.69	4.01	.41	
6-10 years	62	3.76	.70	3.28	.77	3.66	.70	3.93	.61	
> 10 years	435	3.88	.65	3.67	.68	3.91	.65	4.13	.50	
<b>Monthly Income</b>	<b>573</b>									<b>.940</b>
< 10,000 baht	5	3.40	.49	3.38	.64	3.42	.40	-	-	
10,000 – 25,000 baht	70	3.63	.74	3.48	.76	3.82	.66	3.68	.82	
25,001 – 50,000 baht	239	3.81	.67	3.64	.71	3.78	.69	4.07	.54	
50,001 – 75,000 baht	153	3.82	.62	3.52	.68	3.89	.63	3.95	.50	
75,001 – 100,000 baht	79	4.09	.50	4.03	.54	4.02	.55	4.17	.43	
> 100,000 baht	27	4.20	.64	4.00	-	4.09	.81	4.31	.48	



**Table 5.16** Mean – Continuance Commitment Scores

Source	n	All samples		Type I		Type II		Type III		P-value
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
<b>Covariates/Main effects</b>										<b>.282</b>
<b>Gender</b>	<b>581</b>									<b>.990</b>
Male	227	3.30	.67	3.42	.54	3.25	.65	3.21	.79	
Female	354	3.37	.74	3.28	.71	3.45	.75	3.36	.75	
<b>Age</b>	<b>566</b>									<b>.293</b>
21-30 years	70	3.08	.71	3.18	.45	3.05	.80	3.05	.78	
31-40 years	164	3.32	.67	3.34	.62	3.27	.61	3.32	.73	
41-50 years	221	3.42	.71	3.38	.67	3.44	.72	3.44	.77	
51-60 years	111	3.41	.75	3.36	.71	3.48	.76	3.30	.78	
<b>Education Level</b>	<b>581</b>									<b>.153</b>
Secondary School	5	3.86	.49	-	-	3.86	.49	-	-	
Diploma/Certificate	49	3.41	.68	3.45	.64	3.43	.69	2.50	-	
Bachelor Degree	262	3.42	.68	3.40	.64	3.41	.72	3.49	.70	
Master/Doctoral	265	3.25	.74	3.22	.64	3.25	.75	3.26	.78	
<b>Marital Status</b>	<b>580</b>									<b>.587</b>
Single	227	3.29	.78	3.28	.66	3.39	.83	3.23	.85	
Married	329	3.36	.66	3.37	.63	3.36	.69	3.35	.68	
Divorced	24	3.63	.60	3.66	.52	3.66	.47	3.56	.83	
<b>Work Specialization</b>	<b>569</b>									<b>.223</b>
Engineering/Sciences	196	3.27	.68	3.38	.58	3.22	.69	3.18	.77	
Administration	373	3.39	.73	3.30	.69	3.44	.73	3.39	.75	

**Table 5.16** (Continued)

Source	n	All samples		Type I		Type II		Type III		P-value
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
<b>Managerial Position</b>	<b>572</b>									<b>.395</b>
Non-management	419	3.34	.71	3.33	.65	3.39	.72	3.31	.75	
Middle management	147	3.37	.68	3.37	.62	3.37	.62	3.37	.79	
Top management	6	2.52	1.19	3.34	.64	2.72	1.45	2.33	1.15	
<b>Work Experience</b>	<b>581</b>									<b>.054</b>
< 1 year	16	2.92	.64	3.64	-	3.08	.28	2.80	.72	
1-5 years	66	3.19	.68	3.26	.53	2.98	.66	3.21	.76	
6-10 years	62	3.18	.72	3.34	.46	3.28	.78	3.10	.76	
> 10 years	437	3.41	.71	3.35	.67	3.43	.72	3.45	.75	
<b>Monthly Income</b>	<b>575</b>									<b>.432</b>
< 10,000 baht	5	3.36	.38	3.50	.44	3.16	.23	-	-	
10,000 – 25,000 baht	69	3.32	.66	3.44	.56	3.20	.78	3.20	.65	
25,001 – 50,000 baht	243	3.26	.70	3.25	.65	3.36	.63	3.19	.82	
50,001 – 75,000 baht	152	3.44	.68	3.51	.65	3.41	.72	3.44	.67	
75,001 – 100,000 baht	79	3.45	.76	3.29	.75	3.58	.77	3.42	.76	
> 100,000 baht	27	3.19	.93	3.33	-	3.26	1.00	3.13	.92	

**Table 5.17** Mean – Normative Commitment Scores

Source	n	All samples		Type I		Type II		Type III		P-value
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
<b>Covariates</b>										<b>.000</b>
<b>Gender</b>	<b>584</b>									<b>.293</b>
Male	227	3.62	.60	3.49	.58	3.70	.66	3.68	.54	
Female	357	3.70	.63	3.53	.56	3.83	.62	3.70	.67	
<b>Age</b>	<b>569</b>									<b>.125</b>
21-30 years	70	3.49	.54	3.34	.38	3.66	.73	3.48	.48	
31-40 years	165	3.60	.65	3.50	.69	3.69	.64	3.64	.63	
41-50 years	222	3.71	.61	3.53	.53	3.78	.61	3.88	.64	
51-60 years	112	3.76	.63	3.57	.53	3.88	.64	3.71	.66	
<b>Education Level</b>	<b>584</b>									<b>.251</b>
Secondary School	5	4.12	.10	-	-	4.12	.10	-	-	
Diploma/Certificate	45	3.68	.62	3.58	.76	3.69	.58	4.20	-	
Bachelor Degree	266	3.71	.60	3.56	.55	3.82	.63	3.82	.62	
Master/Doctoral	268	3.61	.63	3.42	.57	3.73	.70	3.65	.62	
<b>Marital Status</b>	<b>583</b>									<b>.571</b>
Single	229	3.65	.64	3.48	.56	3.82	.68	3.71	.65	
Married	331	3.67	.60	3.53	.59	3.78	.58	3.65	.60	
Divorced	23	3.78	.67	3.84	.26	3.70	.96	3.85	.43	
<b>Work Specialization</b>	<b>573</b>									<b>.451</b>
Engineering/Sciences	194	3.64	.61	3.53	.55	3.78	.74	3.68	.56	
Administration	379	3.67	.62	3.50	.59	3.80	.60	3.67	.64	

**Table 5.17** (Continued)

Source	n	All samples		Type I		Type II		Type III		P-value
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
<b>Managerial Position</b>	<b>575</b>									<b>.001</b>
Non-management	421	3.62	.63	3.45	.58	3.73	.63	3.67	.63	
Middle management	148	3.75	.56	3.67	.50	3.93	.61	3.69	.55	
Top management	6	4.43	.49	3.51	.57	4.40	.20	4.46	.75	
<b>Work Experience</b>	<b>584</b>									<b>.092</b>
< 1 year	16	3.57	.61	4.20	-	3.70	.52	3.47	.64	
1-5 years	66	3.53	.57	3.37	.64	3.81	.74	3.54	.41	
6-10 years	64	3.47	.74	3.10	.66	3.54	.69	3.56	.77	
> 10 years	438	3.72	.60	3.56	.54	3.81	.62	3.80	.60	
<b>Monthly Income</b>	<b>579</b>									<b>.025</b>
< 10,000 baht	5	3.60	.61	3.66	.50	3.50	.98	-	-	
10,000 – 25,000 baht	71	3.53	.69	3.35	.65	3.83	.69	3.46	.60	
25,001 – 50,000 baht	243	3.64	.59	3.55	.56	3.72	.62	3.69	.60	
50,001 – 75,000 baht	153	3.69	.60	3.50	.56	3.83	.60	3.67	.66	
75,001 – 100,000 baht	80	3.74	.59	3.67	.39	3.79	.59	3.72	.73	
> 100,000 baht	27	3.85	.73	4.00	-	3.85	.74	3.85	.62	

### 5.3.3 Hypothesis Testing for Comparing Commitment between Structures

This part of the study answers research question 1, as stipulated in Chapter 1: Do the levels and types of organizational commitment of Thai public energy enterprises differ among the totally state-owned (non-transformed) enterprise (organization type I), partially transformed enterprise (organization type II), and totally transformed enterprise (organization type III) as perceived and viewed by their employees? The relevant hypotheses set in the Chapter 4 were tested.

**Hypothesis 1:** Employees' affective commitment mean of organization type I is lower than that of organization type II and employees' affective commitment mean of organization type II is lower than that of organization type III.

**Hypothesis 2:** Employees' continuance commitment mean of organization type I is lower than that of organization type II and employees' continuance commitment mean of organization type II is lower than that of organization type III.

**Hypothesis 3:** Employees' normative commitment mean of organization type I is lower than that of organization type II and employees' normative commitment mean of organization type II is lower than that of organization type III.

The results of the analysis of variance in Tables 5.12 to 5.14 indicate the following:

1) The affective organizational commitment score in organization type I is higher than that of organization type II. In the meantime, the AC score in organization type II is higher than in organization type III. Therefore, hypothesis 1 is empirically confirmed by this study.

2) The continuance organizational commitment scores in all organizations did not statistically differ by organizational type. Hence, hypothesis 2 is not empirically supported by this study.

3) The normative organizational commitment scores of both organization Type II and Type III are higher than those of organization Type I, but it is not statistically significant between the NC scores of organization Type II and Type III. Thus, hypothesis 3 is partially accepted.

The analysis of variance results suggests significant organizational structural type differences for affective and normative organizational commitments, and a non-

significant organizational structural type difference for continuance commitment. The ANCOVA results reveal that when demographic variables are accounted for the covariates, the organizational type effects for the affective and normative commitments remain strong except for the continuance commitment. The continuance commitment does not show a statistically significant difference even when all covariates are controlled for.

#### **5.4 Antecedent Variables in the Public Energy Organizations**

The purpose of this section is to explore the sample attitude toward their organizational antecedents. It explores whether differences exist for organizational antecedent types and levels among the three public energy organizations: totally state-owned, partially transformed, and totally transformed. The statistical analyses and results in the section provide empirical evidence to test the hypotheses regarding different levels and types of organizational antecedent among the types of public enterprises. Antecedent variables are classified (as previously discussed in Chapter 3) as change-related behaviors, human resource management practices, and work-related values based on the theoretical framework. Table 5.18 provides the descriptive statistics of the antecedent variables.

**Table 5.18** Descriptive Statistics of Variables

Variables	n	All samples		Type I		Type II		Type III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
<b>Type of Commitment</b>									
Affective	579	3.85	.66	3.62	.70	3.88	.65	4.06	.53
Continuance	581	3.34	.71	3.34	.64	3.39	.72	3.30	.77
Normative	584	3.66	.62	3.52	.57	3.79	.63	3.69	.62
<b>Change-related Factors</b>									
Policy perception	582	3.42	.76	3.31	.71	3.13	.74	3.82	.67
Communication	583	3.31	.63	3.25	.57	3.22	.67	3.47	.61
Job insecurity	584	2.90	.69	2.94	.65	2.93	.76	2.84	.66
Role conflict	582	2.76	.71	2.99	.69	2.71	.69	2.57	.68
Role ambiguity	588	3.79	.53	3.80	.39	3.76	.56	3.80	.60
<b>HRM Practices</b>									
Payment system	585	3.32	.61	3.22	.63	3.36	.62	3.38	.56
Reward & recognition	585	3.49	.66	3.40	.62	3.48	.73	3.59	.60
Empowerment	587	3.49	.65	3.44	.59	3.47	.65	3.56	.69
Supervisor effective	586	3.52	.75	3.48	.69	3.45	.78	3.65	.76
Work cooperation	584	3.54	.64	3.52	.58	3.49	.70	3.62	.62
Training & develop.	586	3.49	.70	3.36	.72	3.55	.68	3.56	.69
Employee Participate	584	3.43	.67	3.29	.61	3.38	.73	3.61	.63
Job satisfaction	584	3.36	.62	3.32	.61	3.39	.60	3.39	.64
<b>Work-related Values</b>									
Performance oriented	585	3.16	.73	3.04	.69	3.13	.76	3.31	.71
People oriented	583	3.31	.58	3.29	.52	3.27	.62	3.37	.58
Organization oriented	586	3.57	.57	3.52	.55	3.55	.57	3.65	.59
External oriented	586	3.46	.73	3.22	.69	3.27	.64	3.91	.66

In order to investigate the relationships between three types of transformed public enterprises—totally state-owned (organization type I), partially transformed (organization type II), totally transformed (organization type III)—and antecedent variables of the respondents, an analysis of variance (ANOVA) was employed. The average scores and p-value (ANOVA results) of the change-related behaviors, human

resource management practices, and work-related values for all three types of organization are provided in Table 5.19, 5.20, and 5.21, respectively.

#### **5.4.1 Change-related Behaviors in Organizations**

As presented in Table 5.18 and Table 5.19, the evidence shows that some change related factors – Perception of the reform policy, Change-related communication, and Role conflict – were different in all types of public energy enterprises.

The levels of reform policy perception in organization type III (totally transformed) (3.81 with an SD of .67) were statistically higher than those of organization type I (3.31 with an SD of .71) and II (3.13 with an SD of .74). On the other hand, there was no statistical significance in the levels of policy perception in organization types I and II.

Similar to the policy perception variable, the levels of change-related communications in organization type III (totally transformed) (3.47 with an SD of .61) were statistically higher than those of organization type I (3.25 with an SD of .67) and II (3.22 with an SD of .57), whereas there was no statistical significance in the levels of policy perception in organization types I and II.

In contrast to the two variables above, even though the levels of role conflicts in the organization differ among the three types of organization, the evidence indicates that the role conflict in organization type I (2.99 with an SD of .69) was the highest and statistically significant from the levels of role conflict in the other types of public organization (2.71 with an SD of .69 for type II and 2.57 an SD of .68 for type III). However, it can be noted that there was no statistical significance in the role conflict level in organization types I and II.



**Table 5.19** Average Scores of Change-Related Variables in Different Organizations

Variables	Type I		Type II		Type III		P-Value
	n	Mean	n	Mean	n	Mean	
<b>Change-related Factors</b>							
Reform policy perception	193	3.31	198	3.13	191	3.82	.000
Communication	191	3.25	201	3.22	191	3.47	.000
Job insecurity	191	2.94	203	2.93	190	2.84	.319
Role conflict	191	2.99	202	2.71	189	2.57	.000
Role ambiguity	194	3.80	204	3.76	190	3.80	.717

#### 5.4.2 Human Resource Management Practices of Organizations

As provided in Table 5.18 and Table 5.20, the evidence showed that five (from eight) variables of the human resource management practice factor in organizations – payment system, reward and recognition, supervisor effectiveness, training and development, and employee participation – differed in the public energy enterprises.

The level of the payment system in organization type III (3.38 with an SD of .56) was higher than that of organization type I (3.36 with an SD of .62) but was not statistically significant when compared with organization type II (3.22 with an SD of .63).

In terms of reward and recognition level, the average score of this variable in organization type III (3.59 with an SD of .60) was higher than that of organization type I (3.48 with an SD of .73) but was not statistically significant when compared to organization type II (3.40 with an SD of .62).

Even though the average level of supervisor effectiveness in organization type II (3.45 with an SD of .78) was lower than that in organization type I (3.48 with an SD of .69), they were not statistically significant. Similarly, supervisor effectiveness in organization type III (3.65 with an SD of .76) was higher than that of organization type I but did not differ in organization type II.

For the training and development in an organization, the level of this human resource management practice showed a similar trend with all of the above practices.

It was evidenced that the level of training and development practice in organization type III (3.56 with an SD of .69) was the highest and differed from that in organization type I (3.36 with an SD of .72). However, it was not statistically significant from organization type II (3.55 with an SD of .68). Furthermore, the training and development levels in organization type I and II were not statistically significant.

Finally, similar to the above human resource management practices, the levels of employee participation in organization type III (3.61 with an SD of .63) were statistically higher than those of organization type I (3.38 with an SD of .73) but there was no difference between organization type II (3.29 with an SD of .61) and type III. Moreover, these levels of employee participation were also not statistically significant in the level of employee participation in organization type I and II.

**Table 5.20** Average Scores of HRM Practice Variables for Different Organizations

Variables	Type I		Type II		Type III		P-Value
	n	Mean	n	Mean	n	Mean	
<b>HRM Practices</b>							
Payment system	192	3.22	203	3.36	190	3.38	.023
Reward & recognition	193	3.40	204	3.48	188	3.59	.021
Power & empowerment	193	3.44	204	3.47	190	3.56	.199
Supervisor effectiveness	193	3.48	203	3.45	190	3.65	.019
Work cooperation	191	3.52	203	3.49	190	3.62	.125
Training & development	192	3.36	203	3.55	191	3.56	.006
Employee Participation	193	3.29	202	3.38	189	3.61	.000
Job satisfaction	193	3.32	202	3.39	189	3.39	.447

It was observed that the differences in the five variables of human resource management practices in the organizations formed a similar pattern. That is, the levels of all five variables in organization type III (totally transformed) were the highest and were statistically significant higher than those of organization type I (totally state-

owned). However, these levels of the five HRM practices were not statistically significant between organization type I (totally state-owned) and organization type II (partially transformed).

### 5.4.3 Work-related Values in Organizations

Some types of work-related values in the organizations differed in the public energy enterprises. Tables 5.18 and 5.21 show that organizations had differences in terms of their employees' performance orientated and external orientated values, whereas the people oriented and organization oriented values in the organization were not different. Read this very carefully to be sure I have it OK.

The level of the performance oriented values in organization type III (3.31 with an SD of .71) was the highest and was statistically significant in relation to that in organization type II (3.13 with an SD of .76) and type I (3.04 with an SD of .69). However, organization type I and II proved to be statistically equal to the level of these types of work-related values. Read carefully.

**Table 5.21** Average Scores of Work-Related Values for Different Organizations

Variables	Type I		Type II		Type III		P-Value
	n	Mean	n	Mean	n	Mean	
<b>Work-related Values</b>							
Performance oriented	194	3.04	203	3.13	188	3.31	.001
People oriented	194	3.29	202	3.27	187	3.37	.200
Organization oriented	191	3.52	204	3.55	191	3.65	.054
External oriented	192	3.22	203	3.27	191	3.91	.000

In terms of external oriented values, the level of this work-related value in organization type III was the highest (3.91 with an SD of .66) and higher than that in other organization types (3.27 with an SD of .66 for organization type I and 3.22 with

an SD of .69 for organization type II). Nonetheless, there was no statistical significance for this type of work-related value in organization type I and type II.

#### **5.4.4 Hypothesis Testing for Comparing Antecedents across Structures**

This part of the paper is intended to answer research question 2 as stipulated in Chapter 1: Do the levels and types of commitment antecedents (change-related behaviors, human resource management practices, and work-related values) of Thai public energy enterprises differ among the three organizational structural types as perceived and viewed by their employees? The hypotheses set in the Chapter 4 were tested.

**Hypothesis 4:** The levels of change-related behavior means (policy perception, change-related communication, job insecurity, role conflict, and role ambiguity) differed in all types of public energy organizations.

**Hypothesis 5:** The levels of human resource management practice means (payment system, reward & recognition, power & empowerment, supervisor effectiveness, work co-operation, training & development, employee participation, and job satisfaction) differ in all types of public energy organizations.

**Hypothesis 6:** The levels of work-related values means (performance orientation, people orientation, organization orientation, and external orientation) differ in all types of public energy organizations.

As presented in the previous section, the results of the analysis of variance in Tables 5.19 to 5.21 indicate the following:

1) Some type of change related factors—including perception of reform policy, change-related communications, and role conflicts—differed in the public energy enterprises. The evidence shows that job insecurity and role ambiguity are not different, whereas organization type III exhibits higher levels of reform policy perception and change-related communications, and organization type II has a higher level in the role conflict dimension. Therefore, hypothesis 4 is partially accepted in this study.

2) The five dimensions of human resource management practices, including payment system, reward and recognition, supervisor effectiveness, training and

development, and employee participation, are different in the public energy enterprises. The levels of these dimensions in organization type I are lower than those of organization type II and type III; however, their levels are not different between organization type II and type III. The levels of the other three dimensions – power and empowerment, work cooperation, and job satisfaction – are not different in any of the types of the public energy enterprises. That is, hypothesis 5 is partially accepted in this study.

3) Half of all work-related value dimensions show differences in their levels in the public energy organizations. The performance oriented and external oriented levels in the organization type III are higher than those of organization type I and II. Hence, hypothesis 6 is also partially accepted in this study.

## **5.5 Relationships between Antecedents and Organizational Commitment**

This section presents the results of the relationships between all antecedents – change-related behaviors, human resource management practices, and work-related values – and all types of organizational commitment. In order to identify these relationships, a stepwise multiple regression was used to determine the regression coefficients.

The results of affective commitment are reported in Table 5.22 and Table 5.23. Of the seventeen attributes of change-related behaviors, only six antecedent variables were significant. These antecedents were: job satisfaction, external oriented values, payment system, role conflict, work cooperation, and people oriented values. This accounted for 31.5% of the variance in affective commitment and was statistically significant ( $F=41.010$ ,  $p\text{-value}=.000$ ).

**Table 5.22** Summary of Analysis of Variance for Antecedent Variables and Affective Commitment

<b>Model</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Regression	75.286	6	12.548	41.010	.000
Residual	58.184	517	.306		
Total	233.469	523			

Note: a Predictors: (Constant), Job satisfaction, external values, payment, work conflict, work cooperation, and people values

b Dependent Variable: Affective Commitment,  $R^2=.315$

**Table 5.23** Stepwise Regression Outcomes with Commitment Antecedent as the Independent Variables and Affective Commitment as the Dependent Variable

<b>Variable</b>	<b>B</b>	<b>SE</b>	<b>Beta</b>	<b>t</b>	<b>p-value</b>
(Constant)	2.226	.275		8.109	.000
Job satisfaction	.320	.051	.298	6.236	.000
External oriented values	.170	.036	.189	4.758	.000
Payment system	.184	.042	.172	4.369	.000
Role conflict	-.145	.039	-.152	-.689	.000
Work cooperation	.173	.045	.165	.820	.000
People oriented values	.110	.054	.097	2.027	.043

The results of the continuance commitment are reported in Table 5.24 and Table 5.25. Of the seventeen attributes of change-related behaviors, only six antecedent variables were significant. These antecedents were: job insecurity, payment system, people oriented values, policy perception, role conflict, and organization oriented values. This accounted for 20.8% of the variance in continuance commitment and was statistically significant ( $F=10.488$ ,  $p\text{-value}=.000$ ).

**Table 5.24** Summary of Analysis of Variance for Antecedent Variables and Continuance Commitment

<b>Model</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Regression	27.542	6	4.590	10.488	.000
Residual	226.714	518	.438		
Total	254.255	524			

Note: a Predictors: (Constant), Job insecurity, payment system, people oriented values, policy perception, work conflict, and organization oriented values

b Dependent Variable: Affective Commitment,  $R^2=.208$

**Table 5.25** Stepwise Regression Outcomes with Commitment Antecedent as the Independent Variables and Continuance Commitment as the Dependent Variable

<b>Variable</b>	<b>B</b>	<b>SE</b>	<b>Beta</b>	<b>t</b>	<b>p-value</b>
(Constant)	2.286	.366		.249	.000
Job insecurity	.163	.044	.160	.709	.000
Payment system	.246	.050	.219	.883	.000
People oriented values	-.206	.059	-.174	-.483	.000
Policy perception	-.093	.038	-.103	-.455	.000
Role conflict	.109	.047	.109	.341	.000
Organization oriented values	.135	.061	.111	.223	.027

The results of the normative commitment are reported in Table 5.26 and Table 5.27. Of the seventeen attributes of change-related behaviors, only six antecedent variables were significant. These antecedents were: job satisfaction, organization oriented values, payment system, external oriented values, employee participation,

and policy perception. This accounted for 29.9% of the variance in normative commitment and was statistically significant ( $F=37.151$ ,  $p\text{-value}=.000$ ).

**Table 5.26** Summary of Analysis of Variance for Antecedent Variables and Normative Commitment

<b>Model</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Regression	61.480	6	10.247	37.151	.000
Residual	143.975	522	.276		
Total	205.455	528			

Note: a Predictors: (Constant), job satisfaction, organization oriented values, payment system, external oriented values, employee participation, and policy perception.

b Dependent Variable: Affective Commitment,  $R^2=.299$

**Table 5.27** Stepwise Regression Outcomes with Commitment Antecedent as the Independent Variables and Normative Commitment as the Dependent Variable

<b>Variable</b>	<b>B</b>	<b>SE</b>	<b>Beta</b>	<b>t</b>	<b>p-value</b>
(Constant)	1.405	.193		7.279	.000
Job satisfaction	.270	.045	.269	.962	.000
Organization oriented	.124	.052	.114	2.370	.018
Payment system	.124	.041	.123	.009	.003
External oriented	.118	.038	.141	.149	.002
Employee participation	.097	.044	.106	.224	.027
Policy perception	-.066	.031	-.081	-2.155	.032



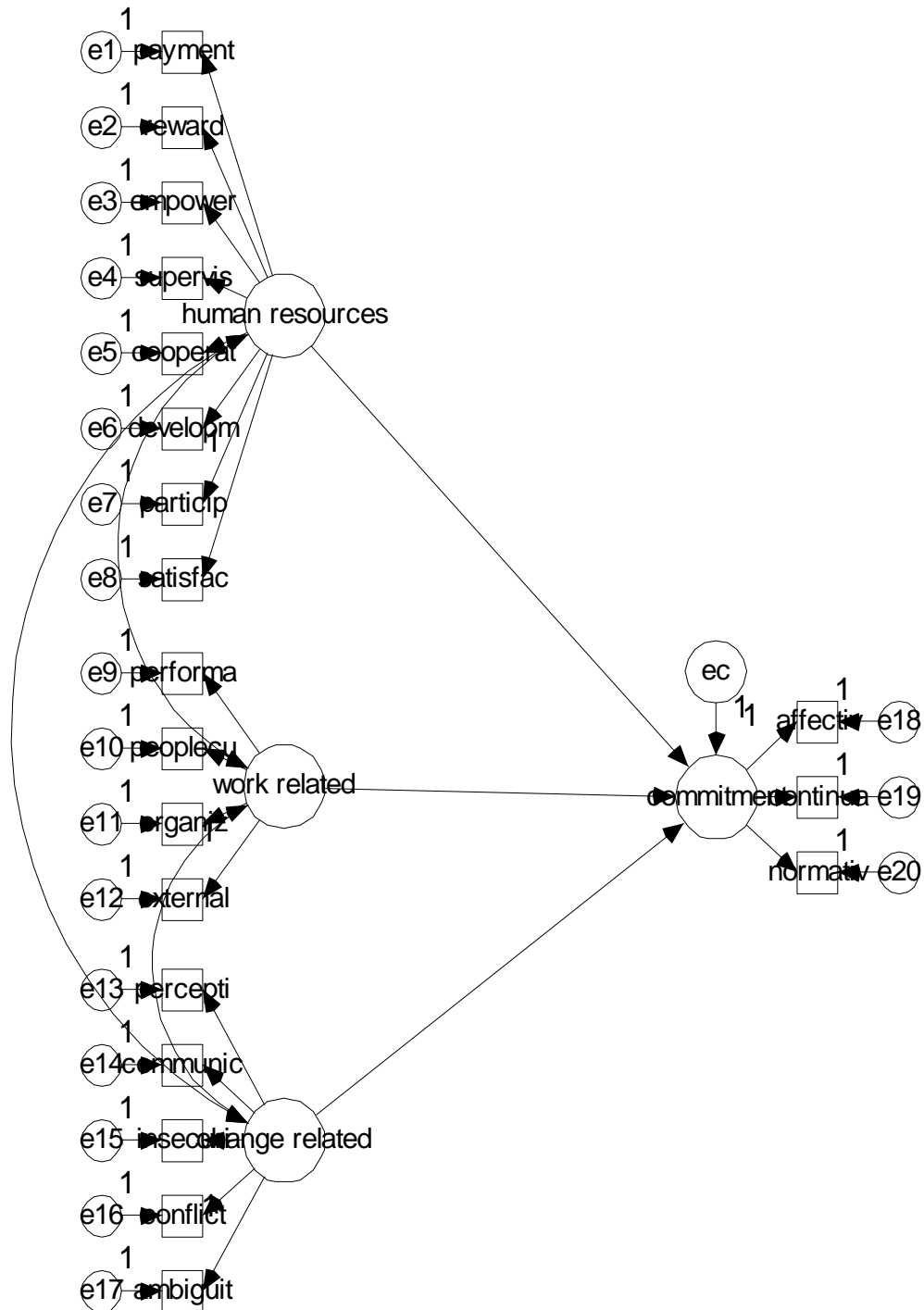
## **5.6 Structural Equation Model Analysis**

This part explores the causal relationships between all variables in the study. Hence, the Structural Equation Model (SEM) is employed to provide evidence for the findings.

### **5.6.1 Formation of the Measurement Model**

In order to explore the causal relationships between organization antecedents and organizational commitment in the public energy enterprises in Thailand, a structural equation model (SEM) was built as a measurement model of the study (Figure 5.1).

Nonetheless, it is important to test for a validation of the proposed model.



**Figure 5.1** Path Diagram for the Measurement Model of Organizational Commitment

As presented in Figure 5.1, the following is hypothesized for the measurement model of organizational commitment:

1) Human resource management practice is a latent exogenous variable which is represented by eight observed variables: the payment system, reward & recognition, empowerment, supervisor effectiveness, work cooperation, training & development, employee participation, and job satisfaction;

2) Change-related behavior is a latent exogenous variable which is represented by five observed variables: reform policy perception, change-related communication, job insecurity, role conflict, and role ambiguity;

3) Work-related value is a latent exogenous variable which is represented by four observed variables: performance oriented, people oriented, organization oriented, and external oriented;

4) Human resource management practice, change-related behavior, and work-related value are correlated; and

5) Errors associated with each observed exogenous variable are uncorrelated.

### **5.6.2 Evaluation of the Measurement Model**

The measurement model was tested in an **a priori** method (Chapter 4) in order to ensure and improve the validation of the measures. AMOS 16.0 was used to estimate the measurement model of organizational commitment. The overall fit measures obtained from a structural equation analysis of the model are presented in Table 5.28.

As shown in Table 5.28, the likelihood-ratio  $\chi^2$  value of 0.764 was statistically significant at  $p > .05$ , indicating an acceptable fit for the model. The goodness-of-fit index (GFI) had a value of 0.957, which was larger than the recommended level of 0.90, indicative of a good fit for this model. For the incremental fit measures, the AGFI value was 0.932, larger than the recommended level of 0.90, indicative of an acceptance for this model. Moreover, the NFI, IFI, and CFI values were all greater than the recommended level of 0.90, also indicating that the model achieved a close fit for the present data.

**Table 5.28** Overall Fit Measures for the Measurement Model

<b>Fit Indices</b>	<b>Criteria</b>	<b>Statistic</b>
Chi-square	$p \geq .05$	.764
Goodness of Fit Index (GFI)	$\geq .90$	.957
GFI Adjusted for Degrees of Freedom (AGFI)	$\geq .90$	.932
Normal Fit Index (NFI)	$\geq .90$	.928
Incremental Fit Index (IFI)	$\geq .90$	.961
Comparative Fit Index (CFI)	$\geq .90$	.961
Chi-square Statistic Comparing Tested Model & Independent Model with Saturated Model (CMIN/DF)	$\approx 1.0$	.888
Root Mean Square Residual (RMR)	$< .05$	.020
Root Mean Square Error of Approximation (RMSEA)	$< .05$	.043

The Chi-square Statistic Comparing Tested Model & Independent Model with Saturated Model (CMIN/DF) was 0.888, which is close to 1.0, indicated an acceptance for the model. Finally, both the Root Mean Square Residual (RMR) and the Root Mean Square Error of Approximation (RMSEA) values were 0.020 and 0.043, less than the recommended level of 0.50.

Based on the above results, the overall fit measures indicated a good fit for this model. Therefore, the measurement model is acceptable. On the other hand, the measurement model has overall validity.

### **5.6.3 The Component Fit Measures**

In this part of the study, the validity of individual observed variables is examined in order to see whether they can represent the latent variables. Table 5.29 presents all of the observed variable loadings in the measurement model. As

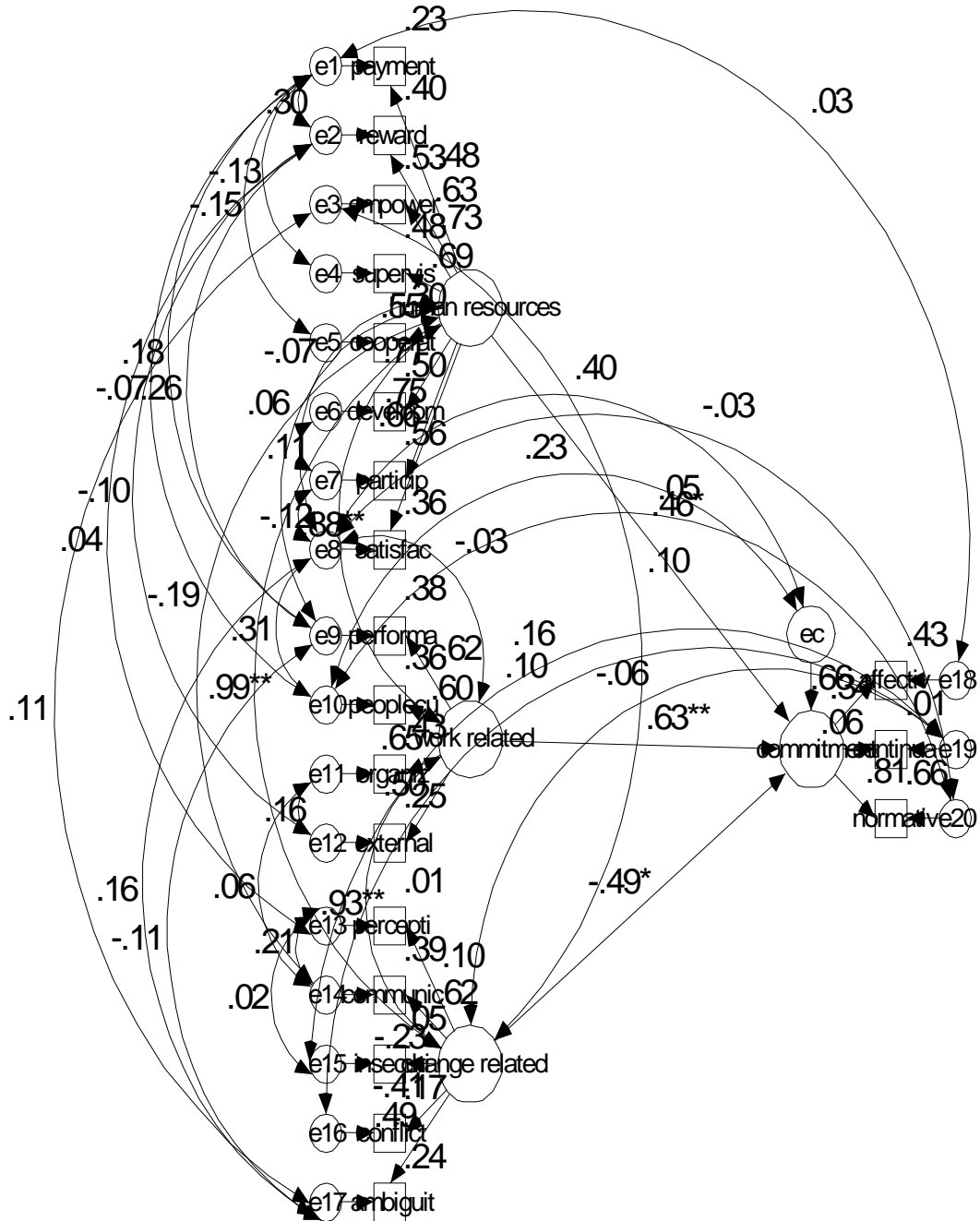
indicated by T-values, this provides evidence of validity in favor of the observed variables used to represent the construct for the latent variables.

**Table 5.29** Regression Coefficients for the Model of Organizational Commitment

Variable Relationships			Estimate	S.E.	T-value	Standardized Coefficient
Commitment	<---	HRM	.552	.297	1.86 <sup>†</sup>	.46
Commitment	<---	Values	.886	.355	2.49*	.63
Commitment	<---	Behaviors	-.982	.554	-1.77 <sup>†</sup>	-.49
Satisfaction	<---	HRM	1.000			.66
Participation	<---	HRM	1.225	.119	10.31*	.75
Development	<---	HRM	1.160	.112	10.35*	.71
Cooperation	<---	HRM	.860	.094	9.16*	.55
Supervisor	<---	HRM	1.197	.117	10.26*	.69
Empower	<---	HRM	1.092	.104	10.46*	.73
Reward	<---	HRM	.994	.101	9.83*	.63
Payment	<---	HRM	.699	.083	8.39*	.48
External	<---	Values	1.000			.49
Organization	<---	Values	1.073	.097	11.01*	.66
People	<---	Values	1.051	.109	9.67*	.60
Performance	<---	Values	1.248	.135	9.26*	.62
Ambiguity	<---	Behaviors	1.000			.49
Conflict	<---	Behaviors	-1.169	.143	-8.17*	-.51
Insecurity	<---	Behaviors	-.630	.123	-5.13*	-.52
Communicate	<---	Behaviors	1.652	.181	9.12*	.62
Perception	<---	Behaviors	.308	.137	3.25*	.50
Affective	<---	Commitment	1.000			.66
Continuance	<---	Commitment	.086	.076	3.13*	.56
Normative	<---	Commitment	1.055	.111	9.53*	.81
HRM	<-->	Values	.154	.020	7.60*	.88
Values	<-->	Behaviors	.095	.013	7.49*	.93
HRM	<-->	Behaviors	.122	.016	7.55*	.89

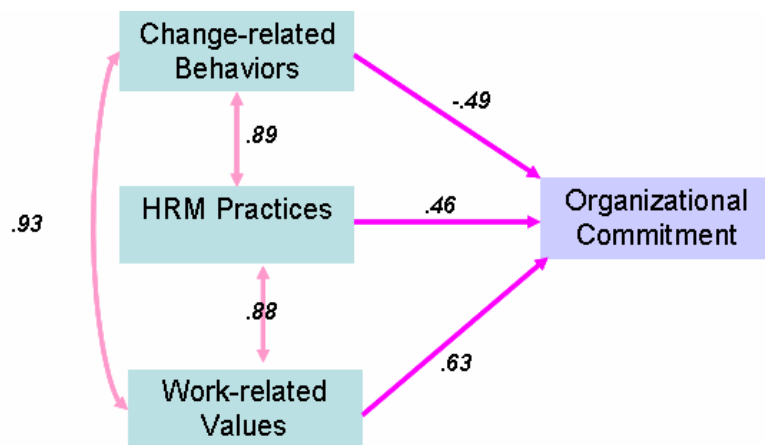
\* $p < .05$ , <sup>†</sup> $p < .10$ .

As a consequence, a path diagram with standardized parameter estimates of the full model is presented in Figure 5.2 below.



**Figure 5.2** Path Diagram of the Full Model of Antecedents and Organizational Commitment in the Public Energy Organizations

According to the full model illustrated in Figure 5.2, the study revealed that the organizational commitment of the public energy enterprises was directly affected by their commitment antecedents found in the literature review. Moreover, the results of the study also showed that interrelationships between the commitment antecedents have been found. As a result, the organizational commitment in public energy enterprises in Thailand could be simplified by the proposed model shown in Figure 5.3. The figure summarizes the four main constructs (change-related behaviors, HRM practices, work-related values and the organizational commitment) and how the variables in the study are interrelated. This path model shows a pattern of relationships with organizational commitment as the theoretical and conceptual framework proposed in this research study.



**Figure 5.3** Summary of the Proposed Model of Organizational Commitment in the Public Energy Enterprise in Thailand.

#### 5.6.4 Hypothesis Testing of the Model

The purpose of this section of the study is to answer question 3 in the research question stipulated in Chapter 1: To what extent do the commitment antecedents (change-related behaviors, human resource management practices, and work-related values) influence the organizational commitment of the public energy enterprises in

Thailand? The purpose is therefore to test the structural (theoretical) relationship of the model of organizational commitment in the public energy enterprises.

The proceeding sections investigate an evaluation of the model and the latent variables involved in this study. This section focused on evaluating the relationships found between the four latent variables: human resource management practices (HRM), work-related values (WRV), change-related behaviors (CRB), and organizational commitment (OC). In the previous section, the studies indicated that all organization antecedents have direct impact on organizational commitment. Therefore, there are three directional hypotheses regarding the relationship between these variables in the study:

**Hypothesis 7:** Change-related behavior directly influences organizational commitment.

**Hypothesis 8:** HRM practice directly influences organizational commitment.

**Hypothesis 9:** Work-related value directly influences organizational commitment.

Table 5.29 illustrates the standardized direct effect (DE), indirect effect (IE) and total effect (TE) estimation of the structural equation model at a statistical significance level of p-value  $<.05$  or greater. With regard to Table 5.30, the study found that the change-related behaviors (CRB) had a negative direct effect on the organizational commitment, with a total effect of  $-.49$ . Moreover, it also found that the human resource management practice had a positive direct effect on organizational commitment exhibited a total effect of  $.46$ . Finally, the work-related values (WRV) had a positive direct effect on organizational commitment, with a total effect of  $.63$ . These results suggest that change-related behavior negatively influences organizational commitment, that human resource management practice positively influences organizational commitment, and that work-related value positively influences organizational commitment. As a consequence, hypotheses 7, 8, and 9 are accepted.



**Table 5.30** Total, Direct, Indirect Effects – Estimation of the Model of Organizational Commitment

Dependent Variable	Effects	Independent Variables		
		CRB	HRM	WRV
OC	DE	-.49	.46	.63
	IE	.00	.00	.00
	TE	-.49	.46	.63
R <sup>2</sup> = .44				

DE = Direct Effect, IE = Indirect Effect, TE = Total Effect, \* p<.05.

As demonstrated in Table 5.30, the square multiple correlation coefficient (R<sup>2</sup>) value showed that 44% of the organizational commitment model accounts for the three commitment antecedents (change-related behaviors, human resource management practice, and work-related values) at a statistically significant p-value of .05 level.

## 5.7 Some Opinions from the Quantitative Method

This section provides public enterprises employees' views and opinions regarding the factors influencing, negatively and positively, the organizational commitment and performance of the public energy enterprise sector in general. In order to do so, four open-ended questions were designed to encourage the employees to express their thoughts freely and in their own words. These open-ended questions requested that the respondents express their opinions in writing regarding problems and ways to improve the public enterprise performance, as well as their attitudes toward public enterprise reform policy. The first question was directed toward encouraging the respondent to write about major problems or obstacles which impede the public energy enterprise sector from working effectively and efficiency. The second and third questions were oriented toward requesting the respondents' opinion with respect to their attitudes on the relationships between the State Enterprise

Reform policy, organizational commitment, and organizational performance. The fourth and last question was designed for any other suggestions or recommendations that the respondents might want to give.

Based on the first question, about half of the respondents provided some answers regarding the problems facing the public energy enterprises. The responses of employees were classified into five major groups based on the following issues: external and social problems, organizational and structure problems, technology and facility problems, human resource management problems, and organizational culture problems.

Social and external problems were considered as an impediment to the effective and efficient performance of the public energy enterprises. Government intervention and social conflicts are problems in sector expansion. Management of the public energy enterprises have no power to resist the intervention from the government. That is, organizations could not have free management to provide services to the public. Many times, the problems lead to unclear and conflicting policies on the part of both external and internal organizations. Changing government policies and changing in organizational structures could lead to low productivity. Moreover, conflicts from villagers and opposites from NGOs regarding the construction of energy infrastructures limit the sector growth of the country.

Of those responding to the question, another major problem on the performance of the public energy enterprises concerns problems relating to organizational structure. Some of the respondents commented on the size of the organization. Large organizations, bureaucratic control, high level of command, too many rules and regulations, and overlapping in the scope of work in some departments are some problems that were suggested as being related to their performance. Moreover, some organizations are facing overstaffing, over-centralized decision-making at the top level, less freedom for employees even on routine work, too much concern with rules and regulations, and conflicts and political problems in the organizations.

The focus of most of the problems and obstacles confronting the public energy enterprises clusters around human resource management issues. The major human

resource problems mentioned were the lack of specialists in some major jobs, workload problems in some departments, lack of an incentive and motivational system in the public enterprise system (particularly in those enterprises which follow civil service rules and regulations), ineffective communications, inefficiency manpower, lack of professionalism and human resource development, careless attitudes toward work, lack of fairness in the organization, lack of coordination and cooperation, rewards and bonuses not being related to work performance, promotion practices based on longevity and seniority rather than performance, inefficient use of time at work, frequent absenteeism coupled with late arrivals and early departures, and too many instruments for job and performance evaluation. Some respondents were concerned about their leaders' behavior in their organization. Some executives have no vision, old style management styles, hesitate to make decisions, and sometimes create unclear commands and policies.

Other problems the respondents reported were lack of facilitated equipment (i.e., computers), out-of-date equipment, and the fast changes and high costs in relevant technologies. Finally, the organizational culture was also noted as a problem in the public energy enterprises. Strong values and cultures in some public utilities were an impediment to effective and efficient performance. With ineffective communication, strong culture dominates executives, employees, and labor unions are not ready for changes and hence against the changes in organizations.

With respect to the second open-ended question, the respondents opined their views on the effects of the State Enterprise Reform policy on organizational performance and commitment. Some respondents, particularly from the totally transformed organization, viewed that the reform policy could encourage both organizational performance and commitment. The following was reported: the public reform policy reduces work steps and creates work flexibility that results in higher productivity; employees are more likely to work harder; new ideas for work innovation are encouraged; a better work policy is supported; the organizations can more easily access financial sources; and work competition conditions that alert employees' behaviors are created.

Nonetheless, the negative impacts of the public reform policy viewed by employees of the public energy enterprises included an private-run organization could create negative impacts on citizens because the private organization leads to profit maximization that costs the public, leading to conflicts in the organization, lack of confidence on the part of employees – this reduces the number of employees and creates more tools to evaluate work performance (work-stress) - and finally creates job insecurity. Read this very carefully please and send any changes.

Many respondents, particularly those from the non-transformed and partially transformed organizations, opined that there were no effects of the public reform policy on both organizational performance and commitment. Some reasons included the large size of public organizations so that the policy could not create any changes in employees' behaviors and employees felt that the organization could maintain the same work rules and regulations. After completing the transformation process, employees believed that their organizations remained state-enterprise forms that were still under government control. Some respondents viewed that their organizations were public utilities and had no competitors in the market, and that the public enterprise reform may not be appropriate for them. Some respondents said that employees were already working hard and organizational performance and commitment depended on employees, not structure. Moreover, productivity depends largely on executives' sense of morality rather than on the reform policy.

The third open-ended question sought employees' opinions regarding how to improve the performance and commitment of public enterprises. Combed with the suggestions and recommendations from the fourth open-ended question, these suggestions can be classified into three major groups: management practice and human resource management practice, work-related values and cultures, and limiting political intervention.

Management practices such as creating job security and conducting effectiveness communications in organizations are recommended by employees in order to improve organizational performance and commitment. Moreover, management should provide the necessary facilities and equipment for operations. Human resource management practices comprised the largest group of suggestions

from employees to their organizations. These HR practices included fairness in the organization, team building, work coordination and cooperation, payment and rewards in relation to employees' performance and benchmark to the market, leadership, a clear career path, and training and development in order to enhance employees' employability. Additionally, management should support training in Total Quality Management (TQM) and change its evaluation method by using a 360-degree employee appraisal method.

It was recommended that some organizational values and cultures could improve organizational commitment. Most of the respondents suggested that management should consider encouraging an organizational culture in which employees feel a part of the organization. In order to improve employee morale, some training and development programs should be implemented to help employees to be more committed, hard working, more oriented toward increasing their awareness of the importance of work and of serving the public, as well as providing some courses about work ethics.

Last, the respondents concentrated on political intervention in the business and on the operations of the public enterprises. Some of them mentioned limiting political practices, such as controlling the prices and charges for services and products, appointing unsatisfactory members of boards of directors, and creating an unsatisfactory structure for public utilities.

## **5.8 Qualitative Results**

The purpose of this section was to determine the specific perceptions and experiences of those involved in the state enterprise reform policy by using the in-depth interview guideline questions developed by the researcher based on the literature review. Ten executives from each target public enterprises were chosen (total sample was 30). With advanced appointments, in-person interviews were conducted with the selected executives. All participants were assured anonymity for this interview. This section of the chapter hence presents portraits of the individual

executives. It includes summaries of the interviews by using the interview guideline consisting of 20 open-ended questions.

One vital issue arising from the sharp demand of energy is a shortage of human resources in this sector. This shortage of human resources could constrain developments in the energy industry, which in turn could place limits on the development of the economy. Human resources in the energy sector can be broadly divided into two categories: manual and professional workers. Hence, the first three questions were directed toward encouraging the respondents to provide their opinions about the sharp increase in energy consumption and its impacts on the human resources in their organization.

The results from all respondents regarding these questions were summarized into two groups; the reasons for personnel lack in the energy sector and the actions that organizations are taking to deal with human resource constraints.

The rapid growth in energy consumption has caused a lack of qualified personnel in all organizations. Both organization type I and type II are facing problems with an aging population, including the loss of skilled employees due to retirement, which has caused a large decline in the workforce in the energy sector over the past decade. This phenomenon is fast becoming a problem for the organizations, as their personnel rules and regulations must be controlled by the government. For organization type III, the rapid expansion of the organization and the recent surge in energy demand have placed emphasis on the need for energy supply from “upstream and downstream” operations that in turn require a sufficient and sustainable supply of labor. For example, expertise in the interpretation of particular geographic regions as well as advanced technologies in petroleum operations are needed in order to ensure the success of the exploration and production business. In addition, new technology, such as that that stems from the nuclear industry, requires specific expertise and a skilled workforce so that the country can develop in the near future.

In order to manage the problems in human resource availability and sustainability, all organizations have stepped-up their efforts to recruit and train more personnel. Due to the limitation of personnel management of organizations type I and

II, these firms can only provide some training and development programs for their employees. These training and development programs mainly focus on organizational productivity and encourage employees to have merit, ethics, and to sacrifice for the organization. Organization type III has more advantages on this constraint since it has succeeded in the state reform and has been listed on the Stock Market of Thailand. In addition to the basic training and development programs, the firm can provide more incentives to the employees so as to increase the competitiveness of employment compared with other energy firms in the market. The organization is making the working conditions more attractive and some employees are encouraged to become involved in further study. Moreover, establishing joint-ventures in expanded businesses enables the training of employees to operate new emerging technologies and to undertake R&D related activities.

The following questions requested the respondents to express their experiences and opinions regarding the implementation, the impacts and obstacles, and the consequences of the state enterprise reform in their organizations.

The state enterprise reform has been implemented in all public energy organizations in Thailand at different levels. In organization type III, the government has implemented the reform policy since 2000. This organization was corporatized on September 2001; the government approved the listing of the organization, and this state-owned oil and gas company became the largest company by market capitalization upon being listing on the Stock Exchange of Thailand (SET). For Organization II, the reform was implemented in order to raise funds for future investments and business expansion. However, the process came to a halt after the Administrative Court ordered that the Initial Public Offering (IPO) be suspended. Subsequently in March 2006 the Thai Administrative court ruled that the organization's corporatization process was non-compliant with the Thai laws. It is to be seen whether or not or how soon the laws will be amended in order to pave way for this organization to resume the IPO process. Finally, the reform had been introduced to organization I and the organization only was in the process of internal preparation. With fears of this being repeated as with the Organization II reform, the suspension of the reform process in Organization I was initiated. At the present, organization type I

and II are not recognized to fully accept the state enterprise reform, even though these organizations have prepared for and have pre-implemented the reform. In the meantime, organization type III has completely implemented the reform policy.

According to the respondents of organization type I and type II, the major causes and obstacles of these organizations include the presence of rigid bureaucratic rules and procedures limiting the flexibility needed for effective operations of their public enterprises. The first and most significant cause concerns the financial rules and regulations that keep the costs down and reduce expenses. The organizations were not able to achieve maximum output from their financial resources. The rigidity of financial rules, restrictions in obtaining approval on financial matters (particularly in purchasing) and restrictions in investments, created efficiency problems. For instance, private power generation can have negotiation power with suppliers in order to purchase better technology at a lower cost because their decision making process is short. For organization type II, the purchasing process for a similar task may take a year to complete.

Another major obstacle for organization type I and II is the imposition of civil service rules and regulations. Civil service regulations impede the flexibility needed for the operations of these public organizations as commercial entities. The public enterprises can not establish proper human resource management systems that fit their activities because civil rules and regulations limit the enterprise's personnel affairs in terms of new recruitment, incentive systems, and employee rewards. It is difficult to hiring qualified personnel or to dismiss unqualified personnel. Moreover, the civil service rules and regulations weaken the relationship between individual performance and the rewards which are important for commercial enterprises. As a consequence, the organizations are now facing a high number of aged employees and a high number of unqualified employees. It can be seen that, these two groups of personnel in the organizations are more likely to be against the implementation of the reform policy.

Some respondents reported that bureaucratic control over their organizations influences the way in which the organizations deal with the public in providing services. Instead of becoming sensitive to the public's needs, the management of some public enterprises becomes more control-oriented and less customer-oriented.



In addition, some employees of these enterprises showed less willingness to put extra effort into achieving the enterprise's goals and were more reluctant to stay overtime to finish their jobs without being paid.

On the other hand, the success of the reform in organization III certainly induces the business expansion and rapid growth of the firm. Furthermore, the enterprise can easily approach market funds and have more flexibility in the expenditure and investment decision making. In order to compete with external competition, organization III enjoys advanced and modern management practices as well as equipment and technology. Finally, the employees earn a higher salary and greater benefits when benchmarking to the market.

The state enterprise reform implemented with all three organizations in this study has had a profound impact, not only on the economic and financial results of the organizations, but also on the human factor – individual employees, human resource management practices, and the cultures and values in the organization.

With regard to the cultures and values in the organization, the organizational goals of the transformed organizations are expected to shift toward profit maximization since private firms pursue shareholder value maximization, whereas public organizations are dependent on political objectives and public interest, where profit is not the primary goal.

Reductions in the number of employees after the reform process have been cited as the major consequence of the state enterprise reform in Organizations I and II since these organizations are associated with over-staffing. Therefore, downsizing and job insecurity have become the major issues in these organizations. These issues imply behavioral changes on the part of individual employees and are likely to be accompanied by resistance. The respondents from Organization I and II reported resistance and work stress occurring from their labor unions as well as some manual employees during the preparation of the reform process in their organizations. It was observed that the resistance to the reform mainly failed among the aged and lower level employees rather than with upper level and younger employees. The aged employees possessed a very high level of continuance commitment. Because organization I and II are older than Organization III, the number of aged personnel in

these two organizations is larger and more likely to be against the reform. While the lower positions are afraid of job loss from the reform policy (cost effectiveness requirement) and investment in information technology, the middle positions are likely to experience higher levels of stress than those in lower positions. Moreover, most executives and individuals in high positions are more likely to support the reform since they expected to earn more benefits when the organizations benchmark to the market rates.

As a consequence of the state enterprise reform and awareness of the lacking of personnel in the energy sector, all public energy enterprises have introduced human resource policies and practices to be significant management tools to promote commitment of their employees to the new policy or, at least, to help define acceptable corporate behavior in the new order. Some management tools (such as TQM, KPI, etc.) have been widely implemented to all public energy enterprises. Extensive and intensive training programs, furthermore, have been implemented in order to develop a more commercial and customer-oriented approach.

The last three questions were oriented toward requesting the respondents' opinions with respect to solutions and suggestions to improve the implementation of the state enterprise reform policy in Thailand.

All of the respondents from Organization III believed that the state enterprise reform was a solution to improve the efficiency and effectiveness of public enterprises. The reform truly provides large opportunities for business growth and expansion for this enterprise. For Organization I and II, nonetheless, some of the respondents called for opening the door to other private enterprises to provide the same services or produces in order to create a more competitive environment which would help some public enterprises (such as telecommunications) to improve their performance in general. These respondents also believed that transferring the public enterprise to a mix between a public and private organization in this sector would improve organizational performance.

In addition, some respondents believed that restructuring the specific public enterprises (public utilities and public health) but keeping them totally state-owned public enterprises would be a better alternative for the reform. In this alternative, the

government and policy makers should reevaluate and restructure the public enterprises to become more business oriented. Another solution suggested granting the public enterprises full autonomy from civil service rules and regulations as well as having a separate budget and financial rules from state procedures.

## **CHAPTER 6**

### **CONCLUSION, DISCUSSION, AND RECOMMENDATION**

The final chapter of this dissertation includes three major topics covering the summary of the research results, details of the findings, and implications as well as recommendations. The summary section restates the theoretical problem that led to the research and findings. The discussion section addresses the results of the research questions and hypotheses and the implications of the study for the organizational commitment of the public energy enterprises in Thailand. The last section provides a set of recommendations for policy makers and management of the public energy enterprises in Thailand and at the same time, suggests areas for future research.

#### **6.1 Summary of the Research**

The public enterprise sector has played a significant role in accomplishing development objectives in developing countries. Governments are managing and expanding the public enterprise sector with the intention of promoting and accelerating national development. These public enterprises operate in all development sectors of nations, including public utilities and energy.

Energy in Thailand is one of the most important sectors that has long been managed and operated by public enterprises. Due to the dramatic increase in energy demand, the Thai government approved The Master Plan for State Enterprise Sector Reform in 1998 in order to reduce financial burdens as well as to improve the efficiency and effectiveness of major public enterprise sectors, including the energy sector in Thailand. At present, the master plan or the reform policy has been implemented for all public energy enterprises in Thailand, including Petroleum Authority of Thailand (PTT), Electricity Generating of Thailand (EGAT), Metropolitan Electricity Authority (MEA) and Provincial Electricity Authority (PEA), to different degrees and at different levels. As a result, depending on ownership and

management, the public enterprise reform results in three major types of the public energy enterprises in Thailand: organization type I – non-transformed or totally state-owned organization, represented by MEA and PEA; organization type II – partially-transformed organization, represented by EGAT; and organization type III – totally-transformed organization, represented by PTT.

The reform policy for the energy sector in Thailand also has led to organizational changes in public energy enterprises. According to the literature review, some organizational changes could affect employees' organizational commitment in both positive and negative ways. Major organizational changes include changing human resource management practices, change-related behaviors, and work-related values (cultures) in organizations. This research therefore is oriented toward systematically examining the current organizational variables and the forms of public enterprises as shaped by the public reform policy.

The main purpose of the comparison is to investigate how the different amounts of organizational change factors negatively or positively influence the employees' organizational commitment to the public energy enterprises in Thailand. The study hence specifically examines the following research questions:

- 1) Do the levels and types of organizational commitment differ among Thai public energy enterprises as perceived and viewed by their employees?
- 2) Do the levels and types of organizational change factors differ among Thai public energy enterprises as perceived and viewed by their employees?
- 3) To what extent do the organizational change factors influence the organizational commitment of the public energy enterprises in Thailand?

Nine hypotheses were tested to answer the research questions proposed by this study:

Hypothesis 1: Employees' affective commitment mean of organization type I is lower than that of organization type II and employees' affective commitment mean of organization type II is lower than that of organization type III.

Hypothesis 2: Employees' continuance commitment mean of organization type I is lower than that of organization type II and employees' continuance commitment mean of organization type II is lower than that of organization type III.

Hypothesis 3: Employees' normative commitment mean of organization type I is lower than that of organization type II and employees' normative commitment mean of organization type II is lower than that of organization type III.

Hypothesis 4: Levels of change-related behaviors differ among all types of the public energy organizations as perceived and viewed by their employees.

Hypothesis 5: Levels of human resources management practice differ among all types of the public energy organizations as perceived and viewed by their employees.

Hypothesis 6: Levels of work-related values differ among all types of the public energy organizations as perceived and viewed by their employees.

Hypothesis 7: Change-related behavior factors directly influence employees' organizational commitment to the public energy enterprises in Thailand.

Hypothesis 8: Human resource management practice factors directly influence employees' organizational commitment to the public energy enterprises in Thailand.

Hypothesis 9: Work-related value factors directly influences employees' organizational commitment to the public energy enterprises in Thailand.

The sample for this study included employees of three public energy enterprises (MEA, EGAT, and PTT) in Thailand. The data were generated from their employees through survey questionnaires. In-depth interviews with executives were conducted in order to obtain more information and insights regarding the research questions addressed in this study. Before administrating the questionnaires, a pilot study was conducted to resolve validity problems. The questionnaire was revised to resolve any problematic areas. Finally, 589 completed questionnaires and 30 in-depth interviews from three public energy enterprises were used in the study.

Data obtained from the questionnaires were analyzed statistically utilizing two methods. Descriptive statistics were used to explore the respondents' answers to selected questionnaire items. This involved analyzing frequency distributions and percentages. Inferential statistics were employed to examine the significance among variables. The F-test was used to test whether there were significant differences between totally state-owned, partially transformed, and totally transformed employees' responses on the attributes of organizational commitment and on the organizational change factors that resulted from the reform policy. The structural

equation model (SEM) was used to identify the degree and direction of the associations between the responses of employees of three types of the enterprises with respect to the major and important factors causing organizational commitment to the public energy enterprises.

## **6.2 Discussion of the Findings and Implications**

The study on the perceptions of Thai public energy enterprise employees regarding the presence of attributes of organizational commitment evidenced significant results. The findings of the study revealed that the totally state-owned public enterprise has mean scores which demonstrated less emphasis on affective commitment and normative commitment compared to partially transformed and totally transformed public enterprises, whereas their mean scores on continuance commitment were not different in these enterprises. These findings partially confirmed the hypotheses of the study, which were consistent with the literature.

### **6.2.1 Discussion of Findings**

This section discussed the findings organized around three major research questions addressed in this study. Table 6.1 summarizes the research hypotheses formulated and the findings with regard to the hypotheses of the study.

**Table 6.1** Summary of Findings

<b>Item</b>	<b>Hypothesis Statements</b>	<b>Finding</b>
H <sub>1</sub>	Employees' affective commitment mean of organization type I is lower than that of organization type II and employees' affective commitment mean of organization type II is lower than that of organization type III.	Accepted
H <sub>2</sub>	Employees' continuance commitment mean of organization type I is lower than that of organization type II and employees' continuance commitment mean of organization type II is lower than that of organization type III.	Rejected
H <sub>3</sub>	Employees' normative commitment mean of organization type I is lower than that of organization type II and employees' normative commitment mean of organization type II is lower than that of organization type III.	Partially accepted
H <sub>4</sub>	Levels of change-related behaviors differ among all types of the public energy organizations as perceived by their employees.	Partially accepted
H <sub>5</sub>	Levels of human resources management practices differ among all types of the public energy organizations as perceived by their employees.	Partially accepted
H <sub>6</sub>	Levels of work-related values differ among all types of the public energy organizations as perceived by their employees.	Partially accepted
H <sub>7</sub>	Change-related behavior factors directly influences employees' organizational commitment to the public energy enterprises in Thailand.	Accepted
H <sub>8</sub>	HRM practice factors directly influences employees' organizational commitment to the public energy enterprises in Thailand.	Accepted
H <sub>9</sub>	Work-related value factors directly influences employees' organizational commitment of the public energy enterprises in Thailand.	Accepted



#### 6.2.1.1 Discussion of Research Question 1

In order to respond to research question 1 (Do the levels and types of organizational commitment differ among Thai public energy enterprises as perceived and viewed by their employees?) in this study, the research findings for hypotheses 1, 2, and 3 will be discussed.

The finding for the first hypothesis showed that a statistically significant difference existed in employees' affective organizational commitment regarding the organizational structure in relationship to the nature of the ownership and management that resulted from the public enterprise reform. The employees in totally state-owned public enterprises revealed that their affective commitment level was less than that of those in the partially transformed enterprise; furthermore, the employees in the partially transformed enterprise revealed that their affective commitment score was less than that of those in the totally transformed enterprise.

The finding for the second hypothesis revealed that a statistically significant difference did not exist in employees' continuance organizational commitment regarding organization structure in relationship to the nature of ownership and management resulting from the public enterprise reform.

The finding of the third hypothesis indicated that a statistically significant difference existed in employees' normative organizational commitment regarding organizational structure in relationship to the nature of ownership and management resulting from the public enterprise reform. The employees in totally state-owned public enterprise revealed that their normative commitment level was less than that of those in partially and totally transformed enterprises; nonetheless, the employees in partially and totally enterprises revealed their normative commitment score at the same statistical level.

It is evidenced that, from the results of hypothesis 1 to 3, the levels of some types of organizational commitment of employees in public energy enterprises are different to a certain extent. The level of employees' affective commitment and normative commitment in the totally transformed public enterprise is higher than that of partially transformed and non-transformed public enterprises. Nevertheless, the differences of the level of employees' continuance commitment in all public

organizations were not statistically significant. In addition, the analysis of variance results suggested that when demographic variables accounted for the covariates, organization type effects for affective and normative commitments remain strong.

The first and significant observation drawn from the results of this study is that there is a significant difference in the level of some attributes of organizational commitment between three types of public energy enterprises. The lack of a structural type difference holds for only continuance commitment.

Since implementing a public reform policy can result in several forms of partial- or full-privatized organization, it leads to the question of whether organization structure matters to performance and commitment. As stipulated in the preceding sections, in principle, employees in the private organizations show higher organizational commitment than that in the public organizations. Hence, the research findings have partly confirmed the evidence since only affective and normative commitments in the totally transformed organization are higher than those in partially and non-transformed organizations.

According to Lawler and Yoon (1996), the degree of interaction between parties (groups of employee) to exchange in organizations influences the relational cohesion and organizational commitment of each party. If structuring depersonalized the exchange, commitment should fall. Although there is evidence that bureaucratic structuring increases commitment in voluntary associations (Knoke, 1990), the results of this study have partly supported the previous studies (e.g., Fiorito et al., 2007), that bureaucratic structuring is negatively related to organizational commitment.

#### 6.2.1.2 Discussion of Research Question 2

With respect to the second research question (Do the levels and types of organizational change factors differ among Thai public energy enterprises as perceived and viewed by their employees?), the findings of hypotheses 4, 5, and 6 will be discussed.

The finding for the fourth hypothesis showed that the employees' perceived some organizational change-related behaviors at different levels in the public energy enterprises. Statistically significant differences were found between

three types of public enterprises for the following factors: perception of the reform policy, change-related communication, and role conflict. The totally transformed enterprise had a higher level of public reform policy perceptions and change-related communication than those of totally state-owned and partially transformed public enterprises. The role conflict factor, however, was evidenced at a higher level than that of partially transformed and totally transformed organizations. For the remaining criteria, it was observed that the transformed organizations – both partially and totally – had a lower job insecurity and role ambiguity level than that of the non-transformed organization even though the differences for these factors were not statistically significant.

The results of the finding for the fourth hypothesis therefore confirmed that the transformed organization had higher mean scores in the employees' perceptions of the reform policy and change-related communications in their organization than both partially transformed and non-transformed organizations. Employees in the transformed public enterprise have been found to have favorable attitudes toward the implementation of the State Enterprise Reform. According to in-depth interviews, the transformed organization prioritizes the importance of communication as well as implements these communications effectively at all levels in their organization. Effective communications on changes would also improve their management and organizational practices.

Unlike the reform policy perception and change-related communication factors, the role conflicts in non-transformed and partially transformed were higher than those of totally transformed organization. This proved that the reform could help reduce the role conflicts of employees in the transformed organizations. Nevertheless, job insecurity and role ambiguity in all organizations were not different. This is because the government still remains a majority shareholder and retains control of the public enterprises.

The public reform policy has been viewed as a major administrative reform for the improvement of the public enterprise's performance as well as for reducing the financial burden of the government. Considering the public reform policy as the core issue, employees of some public enterprises took a unified stance

toward publicly expressed opposition to this decision. The mere motion of 'the reform' translates to an employees' apprehensiveness, fear and the reality of imminent job loss. As an alternative solution to bureaucratic control, however, the respondents of totally transformed public enterprises held favorable attitudes toward implementing the reform policy for their respective enterprises. Moreover, the totally transformed public enterprise has better communications when changes occur. Coulson-Thomas (1997 quoted in Kalyal, 2007) reported that ineffective internal communication becomes a major contributor to the failure of change initiatives. In the meantime, communications can be used to reduce resistance, minimize uncertainty and gain involvement and commitment as the change progresses. This in turn improves morale and retention rates (Klein, 1996). In contrast to policy perception and change-related communication, role conflict in totally transformed organization is lower than that in the partially transformed and non-transformed organization. According to Rizzo et al. (1970 quoted in Kalyal, 2007), role conflict is an incompatibility in communicated expectations that interferes with perceived role performance. Hence, effective communication in totally transformed organization could reduce the level of role conflicts in their organization. The results in this study hence supported the evidence that suggests that positive attitudes or perceptions regarding the reform policy, effective communications in the organization, and a low level of role conflicts in the totally transformed organization encourage a level of success in public reform policy implementation.

The findings for the fifth hypothesis revealed that the employees' perceived most of the human resource management practices at different levels in the three public energy enterprises. Statistically significant differences were found between three types of public energy enterprises in five HRM practices, including the payment system, reward and recognition, supervisor effectiveness, training and development, and employee participation. Those in the transformed organizations – both partially and totally – had higher mean scores than those in the non-transformed organization for the above-mentioned factors. Moreover, it can be observed that the employee participation mean score in the totally transformed public enterprise was the highest.

According to the HRM philosophy, organizational commitment is the joint responsibility of line managers and the human resources department. The way organizations behave as they practice the organization's human resources policies can

influence employees' behaviors (Shepperd and Mathews, 2000). The study found that some human resource management practices in both partially and totally transformed organizations were more effective than those in totally state-owned enterprises. Those HRM practices, resulting from the research, included the payment system, reward and recognition, supervisor effectiveness, training and development, and employee participation.

The environment of the totally state-owned public enterprise is less able to maximize employee satisfaction regarding wages and the reward system. The employees in this organization were not satisfied with the payment and reward systems because the systems were not related to performance. Employees were not satisfied with the payment or salary system, nor with the monetary benefits did they receive. The payment and reward systems are important tools to modify employees' behavior in organizations. Lawler et al. (1998) stated that the reward system can play an important role in determining the success or failure of any organizational improvement effort, especially if it is based on organizational performance for ensuring employee involvement and increasing employee commitment to organizational success. As a consequence, lower salaries and monetary benefits compared with the partially and totally transformed public enterprises have explained their lower levels of organizational affective and normative commitments.

The interpersonal treatment employees received from their supervisors, such as "adequately considering their view points, supporting their personal biases, explaining their decisions and providing feedback timely and applying decision-making criteria consistently" could have strong effects on the employee's perceptions of fairness (Whitener, 2001). The study found that both transformed (partially and totally) organizations had more effective supervisors as perceived by their employees. Therefore, these transformed organizations that have supervisors that treat employee fairly as they enact procedures and HRM practices could increase their employees' trust in the organization and supervisors, which will in turn positively affect the levels of organization commitment.

Training and development are also closely associated with cultural changes and indirectly influence employee commitment in much of the HRM literature. McElroy (2001) argues that organizations that extensively train their employees create a reputation for valuing and developing them. He adds that this

HRM practice provides a vehicle through which organizations can attract the right kind of employees. Thus, people that are high achievers would be attracted to organizations known to value their employees. McElroy further suggests that increased self-worth and importance could be a mechanism through which training is predicted to increase organizational commitment. This is because organizations that invest in training send a clear message to their employees that the organization is committed to them. The employees are bound to respond to their organizations. The response might be in the form of affective commitment because of the psychological attachment to the organization and its goal that are induced by organization specific training, or it might be a moral obligation to give the organization its money's worth if the organization has funded the training. The research revealed that both partially and totally transformed public enterprises had more training and development activity in their organizations than that in the totally state-owned public enterprise. Thus, training and development in an organization could reflect the level of organizational commitment of the public energy enterprises.

Employee participation is involved at all levels of participative decision-making, and employees of different organizations exhibit different levels of participation. Moving decision-making power downward in the organization requires an organizational philosophy of shared authority and accountability (Lawler et al., 1998). According to Meyer and Allen (1997), changing from a system of hierarchical control to one in which employees are encouraged to demonstrate initiative clearly shows that the organization is supportive of its employees and values their contributions. In agreement with this report, Pfeffer and Viega (1999) believed that allowing employees the opportunity to make and take responsibility for decisions that affect their work should increase their sense of responsibility and stimulate more initiatives and effort of the part of employees. As shown in the results of this study, the employees in totally transformed public organizations had higher levels of participation in their organizations. However, the difference was not significant in the levels of employee participation in partially transformed and totally state-owned public enterprises. Since McElroy (2001) argues that employee participation can increase affective commitment when employees are involved in decision-making and when the organization is decentralized, this practice of HRM in the transformed

organization might reflect the higher levels of their affective and normative commitment.

The finding for the sixth hypothesis on the work-related values indicated that employees perceived those antecedents differently in all three public energy enterprises. Statistically significant differences were found between three types of the enterprises for the following factors: performance oriented and external oriented values. Those in the transformed organizations had higher mean scores than both those in either the partially or non-transformed organizations. Hence, the findings partly confirmed the hypothesis.

With the sixth hypothesis, the state enterprise reform policy would induce a change in work-related values due to the new objectives and management practices and the need to increase efficiency and effectiveness. In fact, from the four work-related value dimensions that were measured in this research, two of them were strengthened: performance oriented and external oriented values. The transformed organization seems to develop 'stronger' values and focuses on creating not only better individual accountability and inter-organizational communication and coordination, but also an increased concern for team spirit and for human resources and their development (Cunha and Cooper, 2002). These findings are similar to a report by the United Research (1990) study. The analysis over time, within the partially transformed organization, reinforces this conclusion. Indeed, the unit that would be privatized later on had initially significantly lower levels in organizational orientation, performance orientation, and people orientation. Nonetheless, after being partially privatized, these scores significantly increased, while organizational orientation and people orientation decreased for the units that were not privatized. These changes are reasonable because they reflect the belief that when knowledge, innovation and information are critical for the companies' survival and success, human resources can be a source of competitive advantage (Wright et al., 1994) as long as the companies provide them with the conditions to use and develop their talents, exchange information in a coordinated but extensive way, as well as motivate them by truly acknowledging individual efforts and contributing to achieving organizational objectives and goals.

### 6.2.1.3 Discussion of Research Question 3

For the third and last research question (To what extent do the organizational change factors influence the organizational commitment of the public energy enterprises in Thailand?), hypotheses 7, 8, and 9 will be discussed.

The results for the seventh hypothesis indicated a moderate negative coefficient of  $-.49$ , estimation of the structural equation model at a statistically significant level greater than  $.10$ . These findings suggest that when change-related behaviors are present in the workplace, employees' organizational commitment decreases. These change-related behaviors were proved to have a negative impact on organizational commitment, as hypothesized. This negative relationship between organizational commitment and change-related factors is consistent with the findings of Lopopolo (2002), Bersamin (2005), Kalyal (2007).

At the estimation of the structural equation model at a statistically significant level greater than  $.10$ , the finding for the eighth hypothesis revealed a moderate positive coefficient of  $.46$ . The results suggest that when human resource management practices are present in the workplace, employees' organizational commitment increases. Hence, the HRM practices were predicted to have a positive impact on organizational commitment.

The results of this study support the above empirical evidence (Laka-Mathebula, 2004; Fiorito et al., 2007) because of this positive coefficient.

Lastly, the results for the ninth hypothesis showed a highly positive coefficient of  $.63$ , at a statistically significant level greater than  $.05$ . The findings suggest that when work-related values are present in the workplace, employees' organizational commitment would highly increase. As the work-related values were predicted to have a positive impact on organizational commitment, the results of this study therefore support the previous research of Soipetch Resanond (2002), Cunha and Cooper (2002), Kathrins (2007).

## 6.2.2 Implications of the Research

The present study examined organizational commitment in the public energy enterprises in Thailand by testing the conceptual framework stipulated in Chapter 2 and the resulting the path diagram illustrated in Figure 5.3; as a consequence, the



results of this study provide some significant implications, particularly for academics, in the following pages.

As the literature review indicated, and from the numerous factors that serve as antecedents of organizational commitment, this study represents theoretical or empirical research regarding the antecedents and consequences of organizational commitment in the energy sector. Despite the fact that organizational commitment is an important factor as a basic requirement for the effective functioning of organizations, there have been few empirical studies of organizational commitment in Thai public energy sector. As expected, this study revealed the importance and impact of the public reform policy on some organizational change factors and has enhanced our understanding of employees' perceptions on organizational commitment outcomes in the public energy sector. In other words, this study contributes to expanding change-related antecedents and organizational commitment knowledge, especially in light of the role of the public enterprise reform. As a result, this study provides a basis for energy industry researchers to further test the relationship among these constructed variables.

Empirical evidence appears to support the view that change-related behaviors, HRM practices, and work-related values can influence the development of organizational commitment, especially regarding affective and normative commitments. Organizations that require their employees to develop organizational commitment should provide a supportive work environment which creates a mutually beneficial environment. The practical implications are that organizations should create specific commitment cultures by providing effective communications, extensive training and development, market-related compensations and incentives.

The commitment values that are related to the organizational commitment in this study are performance and external orientation. Organizations could establish a receptive foundation for commitment initiatives by creating a 'commitment values.' According to this viewpoint, commitment to the mission and values of the organization is a fundamental principle. Organizations can then communicate the values of employee commitment through their company mission statement and other executive communications. Training and development can serve as additional levers for enhancing organizational commitment.

Training and development are closely associated with values changes. It is one of the key policy areas necessary to achieve new core values in which organizational commitment ranks high. In order to enhance these commitment values, training can begin with orientation for new employees. This orientation should present several important opportunities, including explaining pay linked to performance, work schedules, and corporate policies. This would give an organization a chance to encourage employee commitment by explaining how the new job contributes to the organization's mission. Through orientation, managers can describe how their company is organized, introduce new employees to their co-workers, and explain company regulations and other procedural matters. In sum, training and development can foster a 'person-organization' fit that is vital for developing productive and dedicated employees.

For current employees, training and development would help them to acquire the knowledge and skills they need to perform their jobs. Employees that enhance their skills through training are more likely to engage fully in their work because they derive satisfaction from mastering new tasks. Training and development also enhance employees' value for organizations as well as their own employability in the job markets. Moreover, most organizations offer higher wages for skilled workers in order to compensate them for their greater value and to discourage turnover.

Managers interested in fostering commitment among their employees should select and adopt HRM practices that would contribute to the perceptions of the organizational commitment to their employees and indirectly to the development of affective commitment. Organizations should not just adopt any HRM practices, as they might not have the same impact on their kind of industry. For instance, job insecurity did not have any significant influence on the organizational commitment of employees in the energy sector, as was expected.

Based on the HRM practices discussed above, compensations and equitable rewards can powerfully influence employee commitment. Open and accurate communication creates an impression that the organization cares for and values the employee as a partner. Furthermore, by providing an explanation of managerial decisions that affect employee welfare, the future of the organization and other labor issues would facilitate the development of organizational commitment, as it reduces

speculation on the part of employees. Furthermore, managers of transforming organizations should focus on the need to implement human resource management practices that lead to different corporate values and reinforce the work behaviors and attitudes that, in the new competitive environment, are being demanded from organizational employees, both at executive and non-executive levels.

### **6.3 Recommendations**

The results of the findings provide some directions for future research and practice.

#### **6.3.1 Recommendations for Policy Practitioners**

The results of the study confirmed that some organizational factors in the public energy enterprise influence organizational commitment in terms of change-related communication, specifically HRM practices and the specific values in public transformed organizations. As a consequence, the government should consider the following in order to support the energy sector:

- 1) Implementation of the state enterprise reform policy should consider the specific factors affecting organizational commitment, taking the results from this research into consideration. Supporting measures for the reform should be also consistent with those factors. Successful public reform policy depends largely on these will and support of the government. Without such support, public officials might have difficulty implementing specific measures, i.e., a marketable payment system, equitable rewards, effective leadership, extensive training and development, employee participation, effective communications, etc. – that encourage employee commitment, partly because of the lack of management initiatives and decisions, legal constraints, human resources management constraints, or problems due to lack of public reform experience. In addition, political support should be ongoing and evolving in order to be certain that the specific measures are implemented continuously by public organizations.

- 2) The implementation of the state enterprise reform should be encouraged in some specific sectors and an incremental approach rather than a

wholesale approach to the reform policy should be pursued. The government should classify and set a list of priorities; and competitive environmental and small public enterprises should be given first priority. The reform of the most prioritized public enterprises will motivate the employees, the general public, and domestic investors to participate in the new organization's equity. The objectives of the state reform policy should not only focus on organizational productivity because improving productivity can be performed by other methods of management. Rather, the objectives of the reform should allow for flexibility in financial approaches and implementing private management practices and incentives to be subject to such market controls and competition should be encouraged.

3) Effective communications for the reform process are very significant. There is no agency responsible for information management at the policy level, and no information on different opinions regarding the reform has been collected. Information disclosure was a one-way type of communication, which contradicts the principle of transparency and does not support participation in the policy process. Effective policy information management and public information dissemination systems are needed for both the public sector and for civil society.

4) Some public enterprises may require partially-owned public enterprises, in which the majority of shares are owned by the state and the minority of shares owned by employees and domestic investors. This form is advantageous in terms of improving the cultures and values of the public organizations by applying private management practices and in terms of being under government control in order to implement development policies. This structure of the new organization would create a feeling of being a government officer serving national and citizen's interests rather than for the private interests.

5) Public enterprises not targeted for the reform should consider restructuring. Restructuring organizational practices and management procedures should be conducive to organizational commitment, hence enhance efficiency and effectiveness. Public enterprises are subject to the standards that have long been applied to private enterprises. Criteria such as efficiency and effectiveness should be used to measure the performance of public enterprises. Applying these measures requires a new orientation toward public enterprises and their managers. Restructuring

requires an operational setting that promotes a greater degree of managerial autonomy in overall decision-making in the areas of financial management, investments and employment. As part of restructuring for market competition, there is a need to reform the rigid wage scale and personnel system. Public enterprises that are encountering the global market should be allowed to design their own pay system and make sure that it suits the specific needs for the industry. Furthermore, public enterprises should develop an incentive mechanism that links to performance in such way that personnel earnings are linked to their own performance as well as the performance of their public enterprise.

6) The implementation of the state enterprise reform should be careful and thorough because of the lack of organic laws and regulations on the reform process in Thailand.

### **6.3.2 Recommendations for Future Research**

It is recommended that the future research move in the following directions:

1) Further research should be conducted by using the same theories and methods with two or more countries in order to analyze the cultural comparison and validity of these effects because conducting organizational commitment by using the commitment factors of Western theories in this study may not fit the Thai context. Since the research provides knowledge regarding organizational implications in a non-Western culture (in Thai context), it is not possible to compare the potential effects of cross-cultural study.

2) Future research should be conducted in other public enterprise sectors in order to obtain an overall picture of organizational commitment in the public enterprises. While this study used the energy sector because of its appropriateness for comparative analysis, other sectors (such as telecommunication, transportation, industry, finance, etc.) can be identified and adopted as samples. Research on different industries can offer an opportunity for a sector-comparison as well as an industry-comparison. This would be useful to policy formulation and implementation.

3) Future research should be conducted with the private sector by employing the factor studies in this research and/or other factors appropriate to the

private sector. Such studies can attempt to explore further the nature of commitment in the public and private sectors in different sectors and identify whether there are distinct sector-specific or culture-specific characteristics. Furthermore, comparative studies of the public sector and the private sector can also be beneficial for viewing the similarities or dissimilarities between organizational commitment in both sectors.

4) Future research should be conducted in the area of desirable commitment types and the interactions among the types of commitment. Such studies can attempt to measure multiple desirable behaviors and empirically explore whether and how the three dimensions of commitment are related to these behaviors, as well as how the three types of commitment affect one another. The results from such research would provide comprehensive information relevant to the basic understanding of the multiple dimensions of organizational commitment.

## BIBLIOGRAPHY

- Al-Harran, Mohammed Abdullah. 1996. **Bureaucratic Control (Environment) as an Impediment to Enhancing Organizational Effectiveness of Public Enterprises in Saudi Arabia**. Doctoral dissertation, University of Mississippi.
- Allen, Natalie J. and Meyer, John P. 1990. The Measurement and Antecedents of Affective, Continuance and Normative Commitment to the Organization. **Journal of Occupational and Organizational Psychology**. 63: 1-8.
- Allen, Natalie J. and Meyer, John P. 1996. Affective, Continuance and Normative Commitment to the Organization: An Examination of Construct Validity. **Journal of Vocational Behavior**. 49: 252-276.
- Arbuckle, J. J. 1995. **AMOS User's Guide**. Chicago: Small Waters Corporation.
- Asia Pacific Energy Research Center. 2000. **Electricity Sector Deregulation in the APEC Region**. Retrieved March 21, 2003 from <http://www.aperc.wvu.edu>
- Asia Pacific Energy Research Center. 2007. **APEC Energy Overview 2006**. Retrieved August 9, 2007 from <http://www.aperc.wvu.edu>
- Bank of Thailand. 2007. **The Economic and Monetary Conditions in 2006**. Retrieved August 8, 2007 from <http://www.bot.or.th>
- Bennett, A. 1997. **How Does Privatization Work? Essays on Privatization in Honour of Professor V.V. Ramanadham**. New York: Rutledge Press.
- Bersamin, Kimberly Kowalski. 2005. **Moderating Job Burnout: An Examination of Work Stressors and Organizational Commitment in a Public Sector Environment**. Doctoral dissertation, Nova Southeastern University.
- Bishop, M. and Thompson, D. 1994. Privatisation in the UK: Internal Organisation and Productive Efficiency. In **Privatisation and Economic Performance**. M. Bishop, J. Kay and C. Mayer, eds. Oxford: Oxford University Press.
- Bollen, Kenneth A. 1989. **Structural Equations with Latent Variables**. New York: John Wiley & Sons.

- Boselie, P.; Hesselink, M.; Pauwe, J. and Van Der Weile, T. 2001. Employee Perception on Commitment Oriented Work Systems: Effects on Trust and Perceived Job Security. **ERIM Report Series Research in Management**. Retrieved July 28, 2007 from <http://www.irim.eur.nl>
- Boss, Dieter. 1991. **Privatization: A Theoretical Treatment**. Oxford: Claredon Press.
- Browne, M. W. and Cudeck, R. 1993. Alliterative Ways of Assessing Model Fit, In Testing Structural Equation Model. In **Testing Structural Equation Models**. K. A. Bollen and J. S. Long, eds. New Jersey: Sage. Pp.136-162.
- Campbell, T.; Chen, A. and Farr, J. 1991. Job Satisfaction, Commitment and Involvement of Information System Professional. **Proceeding of the 24th Annual Hawaii International Conference on System Science**. 4: 538-542.
- Carnell, C. 1995. **Managing Change in Organizations**. United Kingdom: Prentice Hall International.
- Chandler and Thong-Ek Law Offices Limited. 2006. **Thai Power Sector**. Retrieved July 18, 2007 from <http://www.ctlo.com/TPS-2.htm>
- Charles, W. L. Hill and Gareth, R. Jones. 2001. **Strategic Management: An Integrated Approach**. 5<sup>th</sup> ed. Boston: Houghton Mifflin.
- Cooper, M. R. 1988. Managing Cultural Change to Achieve Competitive Advantage. In **Handbook of Business Strategy, 1987/1988 Yearbook**. H. Babian and H. E. Glass, eds. Boston: Warren, Gorham and Lamont.
- Cunha, Rita C. and Cooper, Cary L. 1998. Privatization and the Human Factor. **Journal of Applied Management Studies**. 17 (2): 201-210.
- Cunha, Rita C. and Cooper, Cary L. 2002. Does Privatization Affect Corporate Culture and Employee Wellbeing? **Journal of Managerial Psychology**. 17 (1): 21-49.
- Curry, James P.; Wakefield, Douglas S.; Price, James L. and Mueller, Charles W. 1986. On the Causal Ordering of Job Satisfaction and Organizational Commitment. **Academy of Management Journal**. 29 (4): 847-858.



- Davy, Jeanette A.; Kinicki, Angelo J. and Scheck, Christine L. 1997. A Test of Job Security's Direct and Mediated Effects on Withdrawal Cognitions. **Journal of Organizational Behavior**. 18 (4): 323-349.
- DeCotiis, Thomas A. and Summers, Timothy P. 1987. A Path Analysis of a Model of the Antecedents and Consequences of Organizational Commitment. **Human Relations**. 40 (7): 445-470.
- Dempsey, John R. 2000. Thailand's Privatization of State Owned Enterprises During the Economic Downturn. **Law and Policy in International Business**. (Winter) Retrieved February 24, 2004 from [http://findarticles.com/p/articles/mi\\_qa3791/is\\_/ai\\_n8901783](http://findarticles.com/p/articles/mi_qa3791/is_/ai_n8901783)
- Doncaster, Patrick C. and Davey, Andrew J. H. 2007. **Analysis of Variance and Covariance: How to Choose and Construct Models for the Life Sciences**. Cambridge: Cambridge University Press, University of Southampton.
- Echevarria, S. Garcia and Del Val, M. T. 2004. **Decision-Making Structures versus the New organizational Structures: Toward an Organizational Design of Institutions**. Retrieved April 14, 2004 from <http://www2.uah.es>
- The Economic Times. 2008. **World Energy Demand Seen Growing by 50 Percent by 2030**. Washington, D.C.: The Economic Times.
- Electricity Generating Authority of Thailand. 2007. **Annual Report 2006**. Retrieved January 4, 2008 from [http://www.egat.co.th/english/annual\\_reports](http://www.egat.co.th/english/annual_reports)
- Electricity Generating Authority of Thailand. 2008a. **Annual Report 2007**. Retrieved April 25, 2008 from <http://www.egat.co.th>
- Electricity Generating Authority of Thailand. 2008b. **Company Profile**. Retrieved April 25, 2008 from <http://www.egat.co.th>
- Energy Information Administration, International Energy Agency, Department of Energy, USA. 2008. **International Energy Outlook 2008**. Retrieved June 9, 2008 from <http://www.eia.doe.gov/oiaf/ieo>
- Energy Policy and Planning Office. 2006. **Thailand Energy Situation in 2006 and Outlook 2007**. Retrieved August 9, 2007 from <http://www.eppo.go.th>

- Energy Policy and Planning Office. 2007. **Corporate Profile**. Retrieved August 12, 2007 from <http://www.eppo.go.th>
- Falcione, R. L. and Wilson, C. E. 1988. Socialization Processes in Organizations. In **Handbook of Organizational Communication**. Gerald M. Goldhaber and George A. Barnett, eds. Norwood, N.J.: Ablex. Pp.151-163.
- Fernandes, P. 1986. **Managing Relation between Government and Public Enterprise: A Handbook for Administers and Managers**. Management Development Series. No. 25. Geneva: International Labor Office.
- Fiorito, Jack; Bozeman, Dennis P.; Young, Angela and Meurs, James A. 2007. Organizational Commitment, Human Resource Practices and Organizational Characteristic. **Journal of Managerial Issues**. 19 (2): 186-207.
- Gaertner, Karen N. and Nollen, Stanley D. 1989. Career Experiences, Perceptions of Employment Practices and Psychological Commitment to the Organization. **Human Relations**. 42 (11): 975-991.
- Garson, David G. 2008. **Structural Equation Modeling**. Retrieved June 4, 2008 from <http://www2.chass.ncsu.edu>
- Hackett, Rick D.; Bycio, Peter and Hausdorf, Peter A. 1994. Further Assessments of Meyer and Allen's (1991) Three-Component Model of Organizational Commitment. **Journal of Applied Psychology**. 79 (1): 15-23.
- Harrison, R. 1972. Understanding Your Organization's Character. **Harvard Business Review**. 50 (3): 119-128.
- Hart, Zachary P.; Miller, Vernon D. and Johnson, John R. 2003. Socialization, Resocialization and Communication Relationships in the Context of an Organizational Change. **Communication Studies**. 54 (December): 493-495.
- Health Systems Research Institute. 2006. **Electricity Governance in Thailand: Benchmarking Best Practice and Promoting Accountability in the Electricity Sector**. Bangkok: Health Systems Research Institute.
- Ho, Robert. 2006. **Handbook of Univariate and Multivariate Data Analysis and Interpretation with SPSS**. Australia: Central Queensland University, Chapman & Hall/CRC.

- Hofstede, Geert. 1985. The Interaction between National and Organizational Value Systems. **Journal of Management Studies**. 22 (4): 347-357.
- Hrebiniak, L. and Allutto, J. 1992. Personal and Role-Related Factors in the Development of Organizational Commitment. **American Sciences Quarterly**. 17: 555-573.
- International Energy Agency. 2008. **International Energy Outlook 2008**. International Energy Agency (IEA) Retrieved July 11, 2008 from <http://www.eia.doe.gov>
- Iverson, Roderick D. and Roy, Parimal. 1994. A Causal Model of Behavioral Commitment: Evidence from a Study of Australian Blue-Collar Employees. **Journal of Management**. 20 (1): 15-41.
- Johnson, Gerry; Smith Stuart and Codling, Brian. 2000. Micro Processes of Institutional Change in the Context of Privatization. **The Academy of Management Review**. 25 (3): 572-580.
- Jones, Leroy. 1984. **Public Enterprises in Less Developed Countries**. Cambridge, M.A.: Cambridge University Press.
- Joreskog, Karl G. and Sorbom, D. 1993. **LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language**. Chicago: Scientific Software International.
- Kalyal, Hina Jawaid. 2007. Factors Affecting Commitment to Organizational Change and Its Outcomes. **Journal of Creative Behavior**. 6 (1): 49-54.
- Kamkwalala, Robert. 2006. **A Comparison of Successful and Unsuccessful Privatized Organizations in Malawi**. Doctoral dissertation, Webster University.
- Kathrins, Richard. 2007. **The Relationship of Leadership Style and Types of Organizational Cultures to the Effectiveness and Employee Satisfaction in Acute Care Hospital**. Doctoral dissertation, Touro University International.
- Kidder, Louise H. and Judd, Charles M. 1986. **Research Methods in Social Relations**. 5<sup>th</sup> ed. New York: Holt, Rinehart and Winston.

- Kitisorn Sookpradist. 2006. **Country or Region: Thailand Electric Power Equipment Opportunities**. The U.S. Commercial Service and U.S. Department of Commerce. Retrieved January 15, 2007 from [www.buyusa.gov/asianow/thaielp2006.doc](http://www.buyusa.gov/asianow/thaielp2006.doc)
- Klein, Stuart M. 1996. Management Communication Strategy for Change. **Journal of Organizational Change Management**. 9 (2): 32-46.
- Knoke, D. 1990. **Organizing for Collective Action**. New York: Aldine de Gruyter.
- Koprowski, Eugene J. 1972. Creativity, Man and Organizations. **Journal of Creative Behavior**. 6 (1): 49-54.
- Krackhardt, David M.; McKenna, J.; Porter, Lyman W. and Steers, Richard M. 1981. Supervisory Behavior and Employee Turnover: A Field Experiment. **Academy of Management Journal**. 24 (2): 249-259.
- Kritsana Potisarattana. 2000. **Manager's Perception of Employee Commitment in Thai Organizations**. Doctoral dissertation, Nova Southeastern University.
- Laka-Mathebula, Mmakgomo Roseline. 2004. **Modeling the Relationship between Organizational Commitment, Leadership Style, Human Resources Management Practices and Organizational Trust**. Doctoral dissertation, University of Pretoria.
- Lawler, Edward and Yoon, Jeongkoo. 1996. Commitment in Exchange Relations: Test of a Theory of Relational Cohesion. **American Sociological Review**. 61 (1): 89-108.
- Lawler, E. E.; Mohrman, S. A. and Ledford, G. E., Jr. 1998. **Strategies for High Performance Organizations: Employee Involvement, TQM and Reengineering Programs in Fortune 1000 Companies**. San Francisco: Jossey-Bass.
- Lee, Thomas W.; Ashford, Susan J.; Walsh, James P. and Mowday, Richard T. 1992. Commitment Propensity, Organizational Commitment and Voluntary Turnover: A Longitudinal Study of Organizational Entry Processes. **Journal of Management**. 18 (1): 15-32.
- Library of Congress, Federal Research Division. 2007. **Country Profile: Thailand**. Retrieved May 2, 2008 from <http://www.loc.gov>.

- Lioukas, S. and Kouremeous, A. 1989. In Search of Typical State Enterprise Models. In **Strategic Issues in State-Controlled Enterprises**. T. Hafsi, ed. Greenwich, C.T.: JAI Press Inc.
- Lopopolo, Rosalie B. 2002. The Relationship of Role-Related Variables to Job Satisfaction and Commitment to the Organization in a Restructured Hospital Environment. **Physical Therapy**. 82 (10): 984-999.
- Luthan, Fred; Baack, Donald and Taylor, Lew. 1987. Organizational Commitment: Analysis of Antecedents. **Human Relations**. 40 (4): 219-236.
- McElroy, James C. 2001. Managing Workplace Commitment by Putting People First. **Human Resource Management Review**. 11 (3): 327-335.
- McGrath, J. 1976. Stress and Behaviour in Organisations. In **Handbook of Industrial and Organizational Psychology**. M. D. Dunnette, ed. Chicago: Rand MacNally. Pp.1351-1395.
- McShane, Steven Lattimore and Von Glinow, Mary Ann. 2007. **Organizational Behavior (Essentials)**. Florida: McGraw-Hill Education.
- Mertens, Brian. 1998. Thailand: The Push for Privatization. **Asian Business**. 34 (6): 42-45.
- Metropolitan Electricity Authority (MEA). 2008a. **Annual Report 2007**. Retrieved April 25, 2008 from <http://www.mea.or.th>
- Metropolitan Electricity Authority (MEA). 2008b. **Company Profile and Information**. Retrieved April 25, 2008 from <http://www.mea.or.th>
- Meyer, John P. and Allen, Natalie J. 1991. A Three Component Conceptualization of Organizational Commitment. **Human Resource Management Review**. 1 (1): 61-89.
- Meyer, John P. and Allen, Natalie J. 1997. **Commitment in the Workplace**. Thousand Oaks, C.A.: Sage.
- Meyer, John P. and Becker, T. E. 2004. Employee Commitment and Motivation: A Conceptual Analysis and Integrative Model. **Journal of Applied Psychology**. 89 (6): 991-1007.
- Meyer, John P. and Herscovitch, Lynne. 2001. Commitment in the Workplace: Toward a General Model. **Human Resource Management Review**. 11 (3): 299-326.

- Miller, Vernon D. and Jablin, Fredric M. 1991. Information Seeking during Organizational Entry: Influences, Tactics and a Model of the Process. **Academy of Management Review**. 16 (1): 92-120.
- Ministry of Finance, Thailand. 1998. **Master Plan for State Enterprise Sector Reform: Summary of Master Plan Contents**. Retrieved February 25, 2003 from <http://www.mof.go.th/sepc/sepcSMP.htm>
- Ministry of Finance, Thailand. 2005. **Thailand Focus 2005: Enhancing Economic Strength Through Value Creation**. Retrieved July 22, 2007 from <http://www.mof.go.th>
- Morton, Shirley T. 1993. **Socialization-Related Learning, Job Satisfaction and Commitment for New Employees in a Federal Agency**. Doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg.
- Mowday, Richard T. 1998. Reflections on the Study and Relevance of Organizational Commitment. **Human Resource Management Review**. 8 (4): 387-401.
- Mowday, Richard T.; Porter, Lyman W. and Steers, Richard M. 1982. **Employee-Organization Linkages: The Psychology of Commitment, Absenteeism and Turnover**. New York. Academic Press.
- Mowday, Richard T.; Steers, Richard M. and Porter, Lyman W. 1979. The Measurement of Organizational Commitment. **Journal of Vocational Behavior**. 14 (2): 224-247.
- Nachmias, David and Nachmias, Chava. 1987. **Research Methods in the Social Sciences**. New York: St. Martin's Press.
- Nantnach Rungrusamiwatanakul. 2006. **Factors Affecting the Transformed State Owned Enterprises' Effectiveness**. Doctoral dissertation, National Institute of Development Administration.
- National Economic and Social Development Board, Thailand. 2007. **Quarterly Gross Domestic Product Report**. Retrieved August 10, 2008 from <http://www.nesdb.go.th>

- National Energy Policy Office, Thailand. 1999. **Privatisation and Liberalisation of the Energy Sector in Thailand**. Retrieved March 21, 2003 from <http://www.nepo.or.th>
- Nelson, A.; Cooper, Cary L. and Jackson, P. R. 1995. Uncertainty Amidst Change: The Impact of Privatization on Employee Job Satisfaction and Well-Being. **Journal of Occupational and Organisational Psychology**. 68: 57-71.
- Nunnally, Jum C. 1987. **Psychometric Theory**. 2<sup>nd</sup> ed. New York: McGraw-Hill.
- O'Reilly, Charles and Chatman, Jennifer. 1986. Organizational Commitment and Psychological Attachment: The Effects of Compliance, Identification and Internalization on Pro-Social Behavior. **Journal of Applied Psychology**. 71: 492-499.
- Odom, Randall Y.; Boxx, Randy W. and Dunn, Mark G. 1990. Organizational Cultures, Commitment, Satisfaction and Cohesion. **Public Productivity and Management Review**. 14 (2): 157-169.
- Oliver, Nick. 1990. Work Rewards, Work Values and Organizational Commitment in an Employee-Owned Firm: Evidence from the U.K. **Human Relations**. 43 (6): 513-526.
- Ott, Attiat F. and Hartley, Keith. 1996. **Privatization and Economic Efficiency: A Comparative Analysis of Developed and Developing Countries**. Privatization in the United States, Cheltenham. Adlershott: Edward Elgar.
- Ouchi, William. 1981. **Theory Z: How American Management can Meet the Japanese Challenge**. New York: Addison-Welsey.
- Pant, Pant Narayan and Lachman, Ran. 1998. Value Incongruity and Strategic Choice. **Journal of Management Studies**. 35 (2): 195-212.
- Parker, David and Hartley, Keith. 1991. Do Changes in Organizational Status Affect Financial Performance? **Strategic Management Journal**. 12 (8): 631-641.
- Parker, Donald F. and DeCotiis, Thomas A. 1983. Organizational Determinants of Job Stress. **Organizational Behavior and Human Performance**. 32 (2): 160-177.

- Parry, Ken W. and Proctor-Thomson, Sarah B. 2003. Leadership, Culture and Performance: The Case of the New Zealand Public Sector. **Journal of Change Management**. 3 (4): 376-397.
- Peterson, Marvin W. and Spencer, M.G. 1990. Understanding Academic Culture and Climate. In **Assessing Academic Climates and Cultures**. William G. Tierney, ed. New Directions for Institutional Research No. 68. San Francisco: Jossey-Bass. Pp.3-18.
- Pfeffer, Jeffrey. 1994. **Competitive Advantage Through People: Unleashing the Power of The Work Force**. Boston/Massachusetts: Harvard Business School Press.
- Pfeffer, Jeffrey and Viega, John F. 1999. Putting People First for Organizational Success. **The Academy of Management Executive**. 13 (2): 37-48.
- Podsakoff, Philip M.; Williams, Larry J. and Todor, William D. 1986. Effects of Organizational Formation on Alienation among Professionals and Nonprofessionals. **Academy of Management Journal**. 29 (4): 820-831.
- Pokerney, John James. 1997. **Education: Relationships with Job Satisfaction and Organizational Commitment**. Doctoral dissertation, Illinois State University.
- Porter, Lyman W. and Steers, Richard M. 1973. Organizational, Work and Personal Factors in Employee Turnover and Absenteeism. **Psychological Bulletin**. 80 (2): 151-176.
- Porter, Lyman W.; Steers, Richard M.; Mowday Richard T. and Boulian, Paul V. 1974. Organizational Commitment, Job Satisfaction and Turnover among Psychiatric Technicians. **Journal of Applied Psychology**. 59: 603-609.
- Provincial Electricity Authority. 2008. **Company Profile and Information**. Provincial Electricity Authority (PEA), Thailand. Retrieved April 25, 2008 from <http://www.pea.or.th>
- PTT Public Company Limited, Thailand. 2008. **Annual Report 2007**. Retrieved April 25, 2008 from [www.pttplc.com](http://www.pttplc.com)
- Rekom, Van Johan; Cees, B. M. Van Riel and Berend, Wierenga. 2006. A Methodology for Assessing Organizational Core Values. **Journal of Management Studies**. 43 (2): 175-201.



- Rondinelli, Dennis A. and Vuthiphong, Priebjirivat. 2000. Assessing Privatization Investment Opportunities in Thailand. **Thunderbird International Business Review**. 42 (6): 623-650.
- Roskies, Ethel; Louis-Guerin, Christiane and Fournier, Claudette. 1993. Coping with Job Insecurity: How does Personality Make a Difference? **Journal of Organizational Behavior**. 14 (7): 617-630.
- Royal Thai Government. 1997. **IMF's Approval of the Stand-By Arrangement for the Macroeconomic Adjustment Program**. Document No. 56/1997. Bangkok: Board of Trade.
- Royal Thai Government. 1998. **Master Plan for State Enterprise Sector Reform**. Bangkok: Ministry of Finance, Office of State Enterprises Policy Commission.
- Rubin, Allen and Babbie, Earl R. 1993. **Research Methods for Social Works**. 2<sup>nd</sup> ed. Pacific Grove, C.A.: Brooks/Cole Publishing.
- Salancik, Gerald. 1977. Commitment and the Control of Organizational Behavior and Belief. In **New Directions in Organizational Behavior**. Barry M. Staw and Gerald R. Salancik, eds. Chicago: St. Clair Press. Pp.1-54.
- Saris, William E. and Stronkhorst, Henk L. 1984. **Causal Modeling in Non-Experimental Research: An Introduction to the LISREL Approach**. Amsterdam: Sociometrics Research Foundation.
- Schein, Edgar H. 1988. Organizational Socialization and the Profession of Management. **Sloan Management Review**. 30 (1): 53-65.
- Shepperd, Jeryl L. and Mathews, Brian P. 2000. Employee Commitment: Academic versus Practitioner Perspectives. **Employee Relations**. 22 (6): 555-575.
- Soipetch Resanond. 2002. **Organizational Commitment and Work-Related Cultural Values: A Cross-Cultural Study of Japanese and Thai Managers in Multinational Corporations in Thailand**. Doctoral dissertation, Nova Southeastern University.
- Somers, M. J. 1995. Organizational Commitment, Turnover and Absenteeism: An Examination of Direct and Interaction Effects. **Journal of Organizational Behavior**. 16 (1): 49-58.

- State Enterprise Policy Office (SEPO), Ministry of Finance, Thailand. 2005. **Report on Financial Status and Performance of The State Enterprises**. State Enterprise Policy Office (SEPO), Ministry of Finance, Thailand. Retrieved November 18, 2006 from <http://www.sepo.go.th>
- State Enterprise Policy Office (SEPO), Ministry of Finance, Thailand. 2006a. **Report on Financial Status and Performance of The Public Enterprises In Thailand**. State Enterprise Policy Office (SEPO), Ministry of Finance, Thailand. Retrieved July 20, 2007 from <http://www.sepo.go.th>
- State Enterprise Policy Office (SEPO), Ministry of Finance, Thailand. 2006b. **Report on Number of Employees of the Public Enterprises in Thailand**. State Enterprise Policy Office (SEPO), Ministry of Finance, Thailand. Retrieved July 20, 2007 from <http://www.sepo.go.th>
- Steers, Richard M. 1977. Antecedents and Outcomes of Organizational Commitment. **Administrative Science Quarterly**. 22 (1): 46-56.
- Steers, Richard M. and Porter, Lyman W. 1983. Employee Commitment to Organizations. In **Motivation and Work Behavior**. R. M. Steers and L. W. Porter, eds. New York: McGraw Hill. Pp.218-230.
- Stevens, John M.; Beyer, Janice M. and True, Harrison M. 1978. Assessing Personal, Role and Organizational Predictors of Managerial Commitment. **Academy of Management Journal**. 21 (3): 380-396.
- Stock Exchange of Thailand. 2008. **Corporate Profile of PTT Public Company Limited**. Retrieved March 15, 2008 from <http://www.settrade.com>
- Sutton, Charlotte D. and Harrison, Allison W. 1993. Validity Assessment of Compliance, Identification and Internalization as Dimensions of Organizational Commitment. **Educational and Psychological Measurement**. 53 (1): 217-223.
- United Research. 1990. **Privatization: Implications for Cultural Change**. Morristown, N.J.: United Research.

- Vandenberg, Robert J.; Richardson, Hettie A. and Eastman, Lorrina J. 1999. The Impact of High Involvement Work Processes on Organizational Effectiveness: A Second-Order Latent Variable Approach. **Group and Organizational Management**. 24 (3): 300-339.
- Warwick, D. and Liniger, C. 1975. **The Sample Survey: Theory and Practice**. New York: McGraw-Hill.
- Whitener, Ellen M. 2001. Do High Commitment Human Resources Practices Affect Employee Commitment? A Cross-Level Analysis Using Hierarchical Linear Modeling. **Journal of Management**. 27 (5): 515-535.
- Wiener, Yoash. 1982. Commitment in Organizations: A Normative View. **Academy of Management Review**. 7 (3): 418-428.
- Williams, Larry J. and Anderson, Stella E. 1991. Job Satisfaction and Organizational Commitment as Predictors of Organizational Citizenship and In-Role Behaviors Post a Comment. **Journal of Management**. 17 (3): 601-617.
- Wright, Patrick M.; McMahan, Gary C. and McWilliams, Abigail. 1994. Human Resources and Sustained Competitive Advantage: A Resource-Based Perspective. **International Journal of Human Resource Management**. 5 (2): 301-326.
- World Bank. 1994. **Increasing Private Sector Participation and Improving Efficiency in State Enterprises: Thailand Sector Report**. World Bank, Main Report Volume 2. Retrieved March 1, 2004 from <http://www-wds.worldbank.org>
- Yi, Sang-Hyun. 2006. **The Political Economy of Public Enterprise Reform: A Comparative Study of Mineral Sector Cases in Latin America (Chile, Argentina, Bolivia)**. Doctoral dissertation, The University of Texas at Austin.

## **APPENDIX A**

### **Cover Letter**



January 17<sup>th</sup>, 2008

**Dr. Phiraphol Triasasavit**  
Chairman of the Board of Directors  
Metropolitan Electricity Authority (MEA)  
30 Soi Chidlom, Pleonchit Road, Lumpini  
Patumwam, Bangkok. 10330

Subject: Request for Research Interview

**Dear Chairman:**

This academic research is a part of the doctoral dissertation on the title "*Public Enterprise Reform and Organizational Commitment: A Comparative Study on the Energy Public Enterprises in Thailand*" conducted by M.r.Sakda Siripattasophon, a doctoral candidate of the International Ph.D. program in Development Administration, National Institute of Development Administration (NIDA), Thailand. This research is under supervision of the dissertation committee of the Program, in which I have been appointed as the dissertation advisory committee chairman.

The purpose of this study is to utilize organization and management theories to make a contribution to the public enterprise development in Thailand. It will serve to advance understanding of organizational commitment in order to enable organizations to implement appropriate corporate strategies, including human resources management, that encourage the right kind of commitment among their employees.

Your organization is invited to participate in this research study. Hence, it is extremely necessary to collect relevant data by interviewing executives from your organization. All collected data and information will be kept confidential. The data will be analyzed and the result will be presented on the overall basis, not on the individual basis exclusively for academic purpose only.

We would be highly appreciated for your cooperation and support in this study.

Sincerely yours,

**(Chindalak Vadhanasindhu, Ph.D)**  
Associate Professor  
Ph.D. Program in Development Administration (International)



January 17<sup>th</sup>, 2008

**Mr. Sombat Sarntijaree**

Governor

Electricity Generating Authority of Thailand (EGAT)

53 Jaransanitwong Road Bankruai

Nonthaburi, 11130.

Subject: Request for Research Interview

**Dear Governor:**

This academic research is a part of the doctoral dissertation on the title "*Public Enterprise Reform and Organizational Commitment: A Comparative Study on the Energy Public Enterprises in Thailand*" conducted by M.r.Sakda Siripattasophon, a doctoral candidate of the International Ph.D. program in Development Administration, National Institute of Development Administration (NIDA), Thailand. This research is under supervision of the dissertation committee of the Program, in which I have been appointed as the dissertation advisory committee chairman.

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We would be highly appreciated for your cooperation and support in this study.

Sincerely yours,

A handwritten signature in black ink, appearing to read "C. Vadhanasindhu", is written above the typed name.

**(Chindalak Vadhanasindhu, Ph.D)**

Associate Professor

Ph.D. Program in Development Administration (International)



January 17<sup>th</sup>, 2008

**Mr. Prasert Bunsumpun**  
President  
PTT Public Company Limited (PTT)  
555 Vibhavadi Rangsit Road,  
Chatuchak, Bangkok 10900

Subject: Request for Research Interview

**Dear President:**

This academic research is a part of the doctoral dissertation on the title "*Public Enterprise Reform and Organizational Commitment: A Comparative Study on the Energy Public Enterprises in Thailand*" conducted by M.r.Sakda Siripattasophon, a doctoral candidate of the International Ph.D. program in Development Administration, National Institute of Development Administration (NIDA), Thailand. This research is under supervision of the dissertation committee of the Program, in which I have been appointed as the dissertation advisory committee chairman.

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We would be highly appreciated for your cooperation and support in this study.

Sincerely yours,

**(Chindalak Vadhanasindhu, Ph.D)**  
Associate Professor  
Ph.D. Program in Development Administration (International)

## **APPENDIX B**

### **Survey Questionnaire in English**





## **SURVEY QUESTIONNAIRE**

**Public Enterprise Reform and Organizational Commitment:  
A Comparative Study on the Energy Public Enterprises in Thailand**

This research is a part of the doctoral dissertation for the Ph.D. Program in Development Administration (International) Program, Graduate School of Public Administration, National Institute of Development Administration (NIDA), Bangkok, Thailand.

You are invited to participate in this research study. You will be requested to complete a questionnaire regarding your perceptions of the State Enterprise Reform policy as well as your commitment at your organization.

Your participation is voluntary and confidential. No names or other individual information will be used. There is no alternative study other than what has been described. There is nor known or anticipated risk in your participation. No deception technique is used.

There is no 'right' and 'wrong' answer to the questionnaire. Your responses will be kept completely confidential and combined with others. No identifying information will be used when discussing the results. The data gathered will be used for informational and academic purposes only.

Thank you for your participation.

## QUESTIONNAIRE

### Part I: Background (Socio-demographic) Information

Please answer the following questions regarding the demographic and occupational information by checking ✓ in the provided spaces.

1. Gender:             Male     Female
2. Age:                 Years
3. Marital Status:    Single    Married    Divorced/Widowed/Others
4. Educational level:
  - High school or lower
  - Certificate or vocational school degree
  - College/Bachelor degree
  - Master/Doctoral degree
5. Name of organization:
  - PTT (Totally transformed type)
  - EGAT (Partially transformed type)
  - MEA (Non-Transformed type)
6. Type of your professional/department:
  - Engineering (technical)
  - Non-Engineering (administration)
7. Management position:
  - Lower-level-management
  - Mid-management
  - High-level management
8. Time spent at this organization (Tenure):
  - Less than one year
  - 1 – 5 years
  - 6 -10 years
  - More than 10 years
9. Salary level (per month):
  - < 10,000 Baht
  - 10,000 – 25,000 Baht
  - 25,001 – 50,000 Baht
  - 51,001 – 75,000 Baht
  - 75,001 – 100,000 Baht
  - > 100,000 Baht
10. Do you feel committed to your organization:
  - Yes
  - No

## Part II: Perceptions Toward Organizational Changes and Communications

The following statements relate to your feeling and attitudes towards organizational changes and communications in your organization. Please indicate the extent of your agreement and disagreement with each statement according to the following scale:

*1= Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, and 5=Strongly Agree*

To make your selection, please circle the desired number.

2.1 Most of the time I receive sufficient notice of changes that affect my work group	1	2	3	4	5
2.2 Management takes time to explain to employees the reasoning behind critical decisions that are made	1	2	3	4	5
2.3 Management is adequately informed of the important issues in my unit	1	2	3	4	5
2.4 Management makes a sufficient effort to get the opinions and feelings of employees on changed issues	1	2	3	4	5
2.5 Management tends to stay informed of employee needs	1	2	3	4	5
2.6 The channel of employee communication with top management are effective	1	2	3	4	5
2.7 Management communicates a clear organizational mission and how each unit contributes to achieving the mission	1	2	3	4	5
2.8 Reforming this organization is viable and excellent policy	1	2	3	4	5
2.9 This organization should be partially reformed	1	2	3	4	5
2.10 This organization should be totally reformed	1	2	3	4	5
2.11 Reforming this organization would help it to become more efficient and more concerned about keeping costs down & reducing expenses	1	2	3	4	5
2.12 Reforming this organization would encourage it to use newer technology and modern management methods	1	2	3	4	5
2.13 Reforming this organization would improve the employee's commitment through participating on the ownership of the organization	1	2	3	4	5
2.14 Reforming the organization would encourage the organization to be more responsive to the public and client needs	1	2	3	4	5
2.15 Reforming this organization would limit outside intervention in business decision-making and the daily operation of organization	1	2	3	4	5
2.16 Reforming this organization would improve the quality of the service and/or products introduced by the organization	1	2	3	4	5
2.17 Reforming this organization would simplify and specify the organization goals and objectives	1	2	3	4	5

### Part III: Change-Related Behaviors

The following statements relate to your feeling and behaviors at your workplace. Please indicate the extent of your agreement and disagreement with each statement according to the following scale:

*1= Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, and 5=Strongly Agree*

To make your selection, please circle the desired number.

3.1 I am worried a lot that I will loose my job	1	2	3	4	5
3.2 I am worried a lot that I cannot make a career	1	2	3	4	5
3.3 I am worried about the future of the organization	1	2	3	4	5
3.4 Employees who do not perform their jobs satisfactorily are given too many chances to improve (R)	1	2	3	4	5
3.5 My organization holds employees accountable for failure to do their jobs (R)	1	2	3	4	5
3.6 I often have too much work to do it well	1	2	3	4	5
3.7 I feel severely overworked on my job	1	2	3	4	5
3.8 The organization asks too much employees for what it gives in return	1	2	3	4	5
3.9 The distribution of work among employees in my unit is fair	1	2	3	4	5
3.10 I am given enough time to do what is expected of me in my job	1	2	3	4	5
3.11 I receive an assignment without the manpower to complete it	1	2	3	4	5
3.12 I work with two or more groups who operate quite differently	1	2	3	4	5
3.13 I receive incompatible requests from two or more people	1	2	3	4	5
3.14 I receive an assignment without adequate resources and materials to execute it	1	2	3	4	5
3.15 I work on unnecessary things	1	2	3	4	5
3.16 I feel certain about how much authority I have	1	2	3	4	5
3.17 Clear, planned goals and objectives exists for my job	1	2	3	4	5
3.18 I know what my responsibilities are	1	2	3	4	5
3.19 I know exactly what is expected of me	1	2	3	4	5
3.20 Explanation is clear of what has to be done	1	2	3	4	5

### Part IV: Human Resource Practices

The following statements relate to your feeling and attitudes about human resources management at your workplace. Please indicate the extent of your agreement and disagreement with each statement according to the following scale:

*1= Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, and 5=Strongly Agree*

To make your selection, please circle the desired number.

4.1 I am not getting underpaid for my work	1	2	3	4	5
4.2 In comparison to my colleagues I get well paid	1	2	3	4	5
4.3 As far as I know our salary is as higher or even better than the salaries of comparable organizations	1	2	3	4	5
4.4 Our fringe benefits are equal to or better than in other organizations	1	2	3	4	5
4.5 If I perform my job well, I am likely to be promoted	1	2	3	4	5
4.6 There is a strong link between how well I perform my job and the likelihood of my receiving recognition and praise	1	2	3	4	5
4.7 There is a strong link between how well I perform my job and the likelihood of my receiving a raise in pay/salary	1	2	3	4	5
4.8 There is a strong link between how well I perform my job and the likelihood of my receiving high performance appraisal ratings	1	2	3	4	5
4.9 Generally, I feel this organization rewards employees who make an extra effort	1	2	3	4	5
4.10 I am satisfied with the amount of recognition I receive when I do a good job	1	2	3	4	5
4.11 I have sufficient authority to fulfill my job responsibilities	1	2	3	4	5
4.12 I am encouraged to participate in decisions that affect me	1	2	3	4	5
4.13 I have enough freedom over how I do my job	1	2	3	4	5
4.14 For the most part, I am encouraged to participate in and make decisions that affect my day-to-day activities	1	2	3	4	5
4.15 All in all, I am given enough authority to act and make decisions about my work	1	2	3	4	5
4.16 My supervisor encourages employees to work together as a team	1	2	3	4	5
4.17 My supervisor considers my needs and preferences before making decisions that affect me	1	2	3	4	5
4.18 My supervisor is concerned about the general well-being of his or her employees	1	2	3	4	5
4.19 My supervisor works hard at treating everyone fairly	1	2	3	4	5

4.20 My supervisor ought to be friendlier toward employees	1	2	3	4	5
4.21 My supervisor creates an open and trusting work atmosphere	1	2	3	4	5
4.22 My supervisor wants to hear my ideas and suggestions	1	2	3	4	5
4.23 The people I work with are willing to put out extra effort when asked	1	2	3	4	5
4.24 The people who work around me care about each other	1	2	3	4	5
4.25 The people I work with cooperate to get the job done	1	2	3	4	5
4.26 People here enjoy working with their co-workers	1	2	3	4	5
4.27 There is a family feeling among the people who work in this office	1	2	3	4	5
4.28 I am given a real opportunity to improve my skills at this organization through education and training programs	1	2	3	4	5
4.29 I have had sufficient job-related training	1	2	3	4	5
4.30 My supervisor helped me acquire additional job-related training when I have needed it	1	2	3	4	5
4.31 I receive ongoing training, which enables me to do my job better	1	2	3	4	5
4.32 I am satisfied with the number of training and development programs available on me	1	2	3	4	5
4.33 Overall, I am satisfied with my training opportunities	1	2	3	4	5
4.34 Management is willing to do something with my recommendations	1	2	3	4	5
4.35 Employees are encouraged to bring forward new solutions for problems	1	2	3	4	5
4.36 I feel encouraged to come up with new and better ways of doing things	1	2	3	4	5
4.37 I have a say in setting my annual job performance goals	1	2	3	4	5
4.38 I am so proud of having a chance to work on this job	1	2	3	4	5
4.39 I want to continue this work and never feel bored of it	1	2	3	4	5
4.40 I really love my present job	1	2	3	4	5
4.41 I used to feel so uncomfortable about my job and sometimes want to resign (R)	1	2	3	4	5
4.42 Task assignment in my department is usually based on skills and abilities of each employee	1	2	3	4	5
4.43 I do not have opportunities to demonstrate my fullest capacities on the work I am doing (R)	1	2	3	4	5
4.44 I present job fits well with my skills and knowledge	1	2	3	4	5
4.45 I feel bored with the job I am doing at present (R)	1	2	3	4	5

### Part V: Work-related Values

The following statements relate to your perceptions toward your organization for which you are employed. Please indicate the extent of your agreement and disagreement with each statement according to the following scale:

*1= Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, and 5=Strongly Agree*

To make your selection, please circle the desired number.

5.1 Employees who do well in this organization are screwed and competitive with a strong drive for	1	2	3	4	5
5.2 Individual appraisal is frequently contingent on the achievement of objectives	1	2	3	4	5
5.3 Criteria for appraising your performance are clear	1	2	3	4	5
5.4 Your reward frequently depends on your performance	1	2	3	4	5
5.5 Employees are frequently accountable for objectives.	1	2	3	4	5
5.6 Promotions are frequently based on individual competence	1	2	3	4	5
5.7 Senior managers maintain their distance and act impersonally (R)	1	2	3	4	5
5.8 If you question your supervisors, you are likely to be considered a trouble maker (R)	1	2	3	4	5
5.9 Employees' personal problems are not considered to be the concern of the organization (R)	1	2	3	4	5
5.10 There is a strong sense of being part of a team of committed individuals	1	2	3	4	5
5.11 The organization really values me as an individual and is concerned for my personal development	1	2	3	4	5
5.12 The responsibilities and duties attached to one's role in the organization are clearly defined	1	2	3	4	5
5.13 There are rules, regulations and procedures to govern the way in which one performs one's job	1	2	3	4	5
5.14 Information and help are freely exchanged without fear or favor	1	2	3	4	5
5.15 Employee's work objectives are frequently clearly defined	1	2	3	4	5
5.16 Cooperation and coordination of the different divisions/units/departments of your organization is encouraged	1	2	3	4	5
5.17 Your organization frequently looks for new markets for its products	1	2	3	4	5
5.18 Competitiveness is frequently appraised in comparison with other organizations	1	2	3	4	5
5.19 Your organization frequently invests in new products	1	2	3	4	5
5.20 Your organization frequently looks for opportunities in the external environment	1	2	3	4	5

### Part VI: Organizational Commitment

The following statements relate to your feeling on commitment towards your organization for which you are employed. Please indicate the extent of your agreement and disagreement with each statement according to the following scale:

*1= Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, and 5=Strongly Agree*

To make your selection, please circle the desired number.

6.1 I do not feel any obligation to remain with current organization (R)	1	2	3	4	5
6.2 I would be feel guilty if I left my organization now	1	2	3	4	5
6.3 This organization deserves my loyalty	1	2	3	4	5
6.4 I would not leave my organization right now because I have a sense of obligation to people in it	1	2	3	4	5
6.5 I owe a great deal to my organization	1	2	3	4	5
6.6 I would be very happy to spend the rest of my career in this organization	1	2	3	4	5
6.7 I enjoy discussing my organization with people outside it	1	2	3	4	5
6.8 I really feel as if this organization's problems are my own	1	2	3	4	5
6.9 I do not feel like 'part of the family' at my organization (R)	1	2	3	4	5
6.10 I do not feel 'emotionally attached' to this organization (R)	1	2	3	4	5
6.11 This organization has a great deal of personal meaning for me	1	2	3	4	5
6.12 I do not feel a strong sense of belonging to my organization (R)	1	2	3	4	5
6.13 It would be very hard for me to leave my organization right now, even if I wanted to	1	2	3	4	5
6.14 Too much of my life would be disrupted if I decided I wanted to leave my organization right now	1	2	3	4	5
6.15 Right now, staying with my organization is a matter of necessity as much as desire	1	2	3	4	5
6.16 I believe that I have too few options to consider leaving this organization	1	2	3	4	5
6.17 One of the few negative consequences of leaving this organization would be the scarcity of available alternatives	1	2	3	4	5
6.18 One of the major reasons I continued to work for this organization is that leaving would require considerable personal sacrifice; another organization may not match the overall benefits I have here	1	2	3	4	5



**Part VII: Suggestions and Recommendations**

1. What do you think are the causes and/or obstacles that have been keeping your organization from operating as effectively as it could be? Please specify the reasons/problems.

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2. Do you think the State Enterprise Reform policy would encourage the efficiency and effectiveness as well as employees' commitment in your organization? Why?

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3. In your opinion, what is/are the best way(s) to improve the employees' commitment as well as the performance of your organization?

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4. Other suggestions/recommendations (please specify).

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## **APPENDIX C**

### **Survey Questionnaire in Thai**



**แบบสอบถาม**  
(Survey Questionnaire)

งานวิจัยเรื่อง

**Public Enterprise Reform and Organizational Commitment:  
A Comparative Study on the Energy Public Enterprises in Thailand**

**คำชี้แจง**

แบบสอบถามนี้ เป็นส่วนหนึ่งของการทำวิจัยสำหรับวิทยานิพนธ์ประกอบหลักสูตรดุริยางค์บัณฑิต สาขา การบริหารการพัฒนา (นานาชาติ) คณะรัฐประศาสนศาสตร์ สถาบันบัณฑิตพัฒนบริหารศาสตร์ (NIDA) โดยมีวัตถุประสงค์เพื่อศึกษาความผูกพันองค์กรของพนักงานรัฐวิสาหกิจด้านพลังงานของประเทศไทย ซึ่งผล การศึกษาในครั้งนี้ นอกจากจะเป็นประโยชน์ต่อการพัฒนาองค์ความรู้ทางทฤษฎีด้านการบริหารจัดการองค์กรแล้ว ยังจะเป็นประโยชน์ต่อการบริหารและการพัฒนานโยบายเกี่ยวกับรัฐวิสาหกิจของประเทศไทยได้อีกประการ หนึ่ง นอกจากนี้ ผลการวิจัยที่ได้ยังสามารถนำไปใช้เปรียบเทียบกับงานวิจัยที่เกี่ยวข้องกันในต่างประเทศได้ด้วย

ท่านได้รับเชิญให้เป็นกลุ่มตัวอย่างของการทำวิทยานิพนธ์ในครั้งนี้ การตอบคำถามในแบบการ สัมภาษณ์นี้ มีความสำคัญต่อผลการวิจัยมาก จึงต้องการความช่วยเหลือและความร่วมมือในการตอบคำถามของ ท่านอย่างเป็นจริงที่สุด คำตอบของท่านทุกเรื่องจะถือเป็นความลับ ไม่มีการเปิดเผยข้อมูลส่วนตัวแก่ผู้ใดทั้งสิ้น ข้อมูลทั้งหมดจะนำมาวิเคราะห์ร่วมกัน เพื่อใช้เป็นข้อมูลในการทำวิทยานิพนธ์และนำมาใช้เพื่อประโยชน์ทาง วิชาการเท่านั้น จึงขอให้ท่านไว้วางใจ และกรุณาตอบคำถามทุกข้อ คำตอบที่ได้ มิได้ส่งผลกระทบต่อการทำงาน และชีวิตส่วนตัวของผู้ตอบแบบสอบถามใดๆ ทั้งสิ้น

ผู้วิจัยหวังในความกรุณาของท่าน ที่จะทำความเข้าใจและตอบคำถามทั้งหมดด้วยความตั้งใจอันดี ขอให้ท่านได้โปรดตอบแบบสอบถามทั้งหมดนี้โดยตรงกับความเป็นจริงมากที่สุด ความกรุณาของท่านในครั้งนี้ จะทำให้การวิจัยนี้ประสบความสำเร็จลุล่วงตามจุดมุ่งหมายได้ต่อไป ผู้วิจัยจึงขอขอบพระคุณเป็นอย่างสูงใน ความกรุณาของท่านล่วงหน้ามา ณ โอกาสนี้



## ตอนที่ 2 แบบสำรวจทัศนคติต่อรูปแบบการสื่อสารและการเปลี่ยนแปลงองค์การ

ประโยคคำถามต่อไปนี้ จะสัมพันธ์กับความรู้สึกและทัศนคติของท่านที่มีต่อรูปแบบการสื่อสารและการเปลี่ยนแปลงขององค์การที่ท่านทำงานอยู่ในขณะนี้ กรุณาตอบคำถามโดยวงกลมรอบตัวเลขที่แสดงความรู้สึกของท่านได้ดีที่สุดในแต่ละข้อ โดยเริ่มจาก :

**1=ไม่เห็นด้วยอย่างยิ่ง, 2=ไม่เห็นด้วย, 3=ไม่แน่ใจ, 4=เห็นด้วย, และ 5=เห็นด้วยอย่างยิ่ง**

2.1 ท่านจะได้รับการแจ้งรายละเอียดการเปลี่ยนแปลงที่จะเกิดขึ้นกับหน่วยงานท่านอย่างเพียงพอ และสม่ำเสมอ	1	2	3	4	5
2.2 ฝ่ายจัดการ ใช้ความพยายามและเวลาอย่างมาก กับการอธิบายถึงเหตุผลความจำเป็นในการตัดสินใจที่สำคัญต่อพนักงาน	1	2	3	4	5
2.3 ฝ่ายจัดการ ได้แจ้งรายละเอียดของประเด็นที่สำคัญของการเปลี่ยนแปลง ต่อท่านอย่างพอเพียง	1	2	3	4	5
2.4 ฝ่ายจัดการ ใช้ความพยายามอย่างดี ในการรับฟังความคิดเห็น และความรู้สึกของพนักงานที่มีต่อการเปลี่ยนแปลง	1	2	3	4	5
2.5 ฝ่ายจัดการ มีแนวโน้มที่จะยื่นหยัดเคียงข้างความต้องการของพนักงาน	1	2	3	4	5
2.6 ช่องทางการติดต่อสื่อสารระหว่างพนักงานไปยังผู้บริหารระดับสูง เป็นไปด้วยความสะดวกและมีประสิทธิผล	1	2	3	4	5
2.7 ฝ่ายจัดการ มีการสื่อสารเกี่ยวกับการกิจขององค์การอย่างชัดเจน และแจ้งให้ทราบว่าจะแต่หน่วยงานจะช่วยให้ภารกิจประสบความสำเร็จได้อย่างไร	1	2	3	4	5
2.8 ท่านมีความเห็นว่า การเปลี่ยนแปลงรูปแบบองค์การ เช่น การแปลงสภาพองค์การ ในองค์การของท่าน เป็นเรื่องที่มีความสำคัญ และจำเป็นอย่างยิ่ง	1	2	3	4	5
2.9 องค์การของท่าน ต้องได้รับการแปลงสภาพทั้งองค์การ (ทุกหน่วยงาน) จึงจะได้ผลประโยชน์ที่ดีที่สุด	1	2	3	4	5
2.10 ท่านเห็นว่า องค์การของท่าน ไม่จำเป็นต้องแปลงสภาพทั้งองค์การ การแปลงสภาพบางส่วนหรือบางหน่วยงานที่จำเป็น จะเกิดผลดีกว่าการแปลงทั้งหมด	1	2	3	4	5
2.11 ท่านเชื่อว่า การแปลงสภาพองค์การของท่าน จะช่วยให้เกิดประสิทธิผลในการทำงานมากยิ่งขึ้น โดยเฉพาะการลดต้นทุนค่าใช้จ่ายต่าง ๆ ลงได้	1	2	3	4	5
2.12 ท่านเห็นว่า การแปลงสภาพองค์การ จะช่วยส่งเสริมให้เกิดมีการนำเทคโนโลยีที่ทันสมัย และวิธีการบริหารจัดการแบบใหม่มาใช้ในองค์การได้ง่ายขึ้น	1	2	3	4	5
2.13 ท่านเห็นว่า การแปลงสภาพองค์การ จะเพิ่มความทุ่มเทและรู้สึกผูกพันของพนักงานที่มีต่อองค์การได้ โดยผ่านการมีส่วนร่วมในการเป็นเจ้าของกิจการ	1	2	3	4	5
2.14 ท่านเห็นว่า การแปลงสภาพองค์การ จะส่งเสริมให้ท่านสามารถตอบสนองต่อความต้องการของประชาชนโดยรวมและลูกค้าได้ดียิ่งขึ้น	1	2	3	4	5
2.15 ท่านเห็นว่า การแปลงสภาพองค์การ จะช่วยป้องกันและบรรเทา การแทรกแซงการบริหารจัดการขององค์การ จากบุคคลภายนอกได้	1	2	3	4	5
2.16 ท่านเห็นว่า การแปลงสภาพองค์การ จะช่วยปรับปรุงคุณภาพของการให้บริการ และ/หรือ ผลิตภัณฑ์ขององค์การท่านได้	1	2	3	4	5
2.17 ท่านเห็นว่า การแปลงสภาพองค์การ ช่วยให้เกิดความชัดเจนในด้านเป้าหมายและวัตถุประสงค์ขององค์การได้ดียิ่งขึ้น	1	2	3	4	5

### ตอนที่ 3 แบบสำรวจพฤติกรรมของพนักงานที่มีต่อองค์การ

ประโยคคำถามต่อไปนี้ จะสัมพันธ์กับความรู้สึก ทศนคติและพฤติกรรมของท่านขณะที่ทำงานอยู่ในขณะนี้  
กรุณาตอบคำถามโดยวงกลมรอบตัวเลขที่แสดงความรู้สึกของท่านได้ดีที่สุดในแต่ละข้อ โดยเริ่มจาก:  
**1= ไม่เห็นด้วยอย่างยิ่ง, 2=ไม่เห็นด้วย, 3=ไม่แน่ใจ, 4=เห็นด้วย, และ 5=เห็นด้วยอย่างยิ่ง**

3.1 ท่านมีความกังวลใจอย่างมาก เกี่ยวกับความมั่นคงในการทำงานที่องค์การนี้	1	2	3	4	5
3.2 ท่านมีความกังวลใจอย่างมาก เกี่ยวกับการเติบโตของท่านในงานที่กำลังปฏิบัติอยู่ในขณะนี้	1	2	3	4	5
3.3 ท่านมีความกังวลใจ เกี่ยวกับขนาดขององค์การที่ท่านทำงานอยู่ในขณะนี้	1	2	3	4	5
3.4 ในองค์การของท่าน พนักงานที่มีผลการทำงานไม่เป็นที่น่าพอใจ จะได้รับโอกาสให้ปรับปรุงตนเองอยู่เสมอ	1	2	3	4	5
3.5 ในองค์การของท่าน พนักงานที่มีผลงานไม่ดี ก็ยังคงสามารถทำงานอยู่ได้	1	2	3	4	5
3.6 ท่านได้รับมอบหมายให้ทำงานในปริมาณงานที่มากเกินไปกว่าที่จะทำได้ดี	1	2	3	4	5
3.7 ท่านมีความรู้สึกที่ต้องทำงานในปริมาณที่มากเกินไปกว่าความสามารถที่มี	1	2	3	4	5
3.8 องค์การของท่านเรียกร้องให้พนักงานทุ่มเท และทำงานตอบแทนองค์การในระดับที่สูงเกินไป	1	2	3	4	5
3.9 การกระจายงานระหว่างพนักงานในหน่วยงานท่าน เป็นไปอย่างเหมาะสมและเป็น ธรรม	1	2	3	4	5
3.10 ท่านได้รับเวลาในการทำงานที่เหมาะสมและเพียงพอ กับปริมาณงานที่ต้องทำให้แล้วเสร็จ	1	2	3	4	5
3.11 ท่านได้รับมอบหมายให้ทำงาน โดยปราศจากการมอบอำนาจในกระทำได้สำเร็จ	1	2	3	4	5
3.12 ท่านต้องทำงานกับหน่วยงานอื่น ๆ ที่มีวิธีการทำงาน หรือ ลักษณะการปฏิบัติงานที่ต่างกัน	1	2	3	4	5
3.13 ท่านได้รับการสั่งการให้ทำงานอย่างหนึ่งในวิธีการที่แตกต่างกัน จากหัวหน้าตั้งแต่สองคนขึ้นไป	1	2	3	4	5
3.14 ท่านได้รับมอบหมายให้ทำงานโดยที่มีเครื่องมือหรืออุปกรณ์ในการทำงานไม่เพียงพอ	1	2	3	4	5
3.15 ท่านมักได้รับมอบหมายให้ทำงานในภารกิจที่ไม่มีความสำคัญอยู่เสมอ	1	2	3	4	5
3.16 ท่านรู้สึกมั่นใจ และมีความเข้าใจอย่างยิ่งเกี่ยวกับอำนาจหน้าที่ของท่านในองค์การนี้	1	2	3	4	5
3.17 ท่านมีความเข้าใจอย่างยิ่งเกี่ยวกับเป้าหมายและวัตถุประสงค์ของงานที่ท่านทำ	1	2	3	4	5
3.18 ท่านทราบเป็นอย่างดีว่า หน้าที่ความรับผิดชอบของท่านคืออะไร	1	2	3	4	5
3.19 ท่านทราบเป็นอย่างดีว่า ความคาดหวังผลงานจากท่านคืออะไร	1	2	3	4	5
3.20 ท่านได้รับการอธิบายชี้แจงเกี่ยวกับงานที่จะต้องทำเป็นอย่างดี	1	2	3	4	5

#### ตอนที่ 4 แบบสำรวจการปฏิบัติงานด้านทรัพยากรบุคคล

ประโยคคำถามต่อไปนี้ จะสัมพันธ์กับความรู้สึกและทัศนคติของท่านที่มีต่อรูปแบบหรือวิธีการบริหารงานด้านทรัพยากรบุคคลขององค์กรที่ท่านทำงานอยู่ในขณะนี้ กรุณาตอบคำถามโดยวงกลมรอบตัวเลขที่แสดงความรู้สึกของท่านได้ดีที่สุดในแต่ละข้อ โดยเริ่มจาก:

**1= ไม่เห็นด้วยอย่างยิ่ง, 2=ไม่เห็นด้วย, 3=ไม่แน่ใจ, 4=เห็นด้วย, และ 5=เห็นด้วยอย่างยิ่ง**

4.1 ท่านได้รับค่าจ้างและค่าตอบแทนในระดับที่เหมาะสมกับงานที่ท่านทำอยู่ปัจจุบัน	1	2	3	4	5
4.2 เมื่อเปรียบเทียบกับเพื่อนร่วมงานแล้ว ท่านได้รับค่าตอบแทนที่ดีกว่า	1	2	3	4	5
4.3 เท่าที่ท่านทราบ เงินเดือนของท่านในองค์กรนี้ สูงกว่า หรือ ต่ำกว่าองค์กรอื่นๆ ที่มีลักษณะธุรกิจใกล้เคียงกัน	1	2	3	4	5
4.4 ค่าตอบแทนด้านสวัสดิการอื่นๆ ของท่าน เท่าเทียมหรือดีกว่าองค์กรอื่นๆ	1	2	3	4	5
4.5 หากท่านมีผลการปฏิบัติงานที่ดี ท่านมีโอกาสได้รับการเลื่อนลำดับชั้น/เลื่อนตำแหน่ง	1	2	3	4	5
4.6 หากท่านสามารถทำงานได้ดี ท่านจะได้รับการยอมรับและนับถือในองค์กร	1	2	3	4	5
4.7 หากท่านมีผลการทำงานที่ดี ท่านมีโอกาสได้รับเงินเดือน/ค่าจ้าง ที่เพิ่มสูงขึ้น	1	2	3	4	5
4.8 หากท่านมีผลการทำงานที่ดี ท่านก็จะได้รับผลการประเมินที่ดีตามไปด้วย	1	2	3	4	5
4.9 โดยทั่วไป ท่านรู้สึกว่า องค์กรนี้ให้ผลตอบแทนที่ดีแก่พนักงานที่มีความพยายามมากเป็นพิเศษในการทำงาน	1	2	3	4	5
4.10 ท่านพอใจกับระดับของการยอมรับนับถือ เมื่อท่านสามารถทำผลงานได้ดี	1	2	3	4	5
4.11 ท่านได้รับมอบอำนาจหน้าที่ที่เพียงพอต่อการปฏิบัติงานที่ท่านรับผิดชอบ	1	2	3	4	5
4.12 ท่านได้รับการสนับสนุนให้มีส่วนร่วมในการตัดสินใจในเรื่องที่จะมีผลกระทบต่อตัวท่านเอง	1	2	3	4	5
4.13 ท่านมีอิสระในการทำงานของท่านอย่างเพียงพอ	1	2	3	4	5
4.14 โดยส่วนใหญ่ ท่านได้รับการสนับสนุนให้มีส่วนร่วม และมีส่วนในการตัดสินใจในสิ่งที่มีผลกระทบต่อกิจกรรมการทำงานของท่านในแต่ละวัน	1	2	3	4	5
4.15 โดยรวมแล้วท่านมีอำนาจหน้าที่อย่างเพียงพอในการกระทำและตัดสินใจเกี่ยวกับงานของท่าน	1	2	3	4	5
4.16 หัวหน้างานของท่าน สนับสนุนพนักงานให้ทำงานเป็นทีม	1	2	3	4	5
4.17 หัวหน้างานของท่าน มักจะสอบถามความเห็นของท่าน ก่อนที่จะมีการตัดสินใจใดๆ ที่จะมีผลต่อท่าน	1	2	3	4	5
4.18 หัวหน้างานของท่าน ให้ความสนใจเป็นพิเศษเกี่ยวกับความอยู่ดีมีสุขของผู้ใต้บังคับบัญชา	1	2	3	4	5
4.19 หัวหน้างานของท่าน ต้องทำงานอย่างหนัก เพื่อให้พนักงานทุกคนได้รับการดูแลปฏิบัติอย่างเท่าเทียมกัน	1	2	3	4	5
4.20 หัวหน้างานของท่าน มักจะให้ความเป็นกันเองกับพนักงานทุกคน	1	2	3	4	5

4.21	หัวหน้างานของท่าน มีความคิดริเริ่มและส่งเสริมให้มีบรรยากาศในการทำงานที่เป็นมิตรและโปร่งใส	1	2	3	4	5
4.22	หัวหน้างานของท่าน มีความประสงค์ที่จะได้รับความเห็นและข้อเสนอแนะในการทำงานจากท่าน	1	2	3	4	5
4.23	เพื่อนร่วมงานของท่าน มีความเต็มใจที่จะช่วยกันทຸ່มเหตุความพยายามในการทำงานให้มากขึ้น เมื่อได้รับการร้องขอ	1	2	3	4	5
4.24	เพื่อนที่ทำงาน ให้ความสนใจและดูแลเพื่อนร่วมงานซึ่งกันและกันเป็นอย่างดี	1	2	3	4	5
4.25	เพื่อนร่วมงานของท่าน ยินดีให้ความร่วมมือเพื่อให้งานสำเร็จลุล่วงไปด้วยดี	1	2	3	4	5
4.26	พนักงานทุกคนในองค์กร มีความสุขกับเพื่อนร่วมงาน	1	2	3	4	5
4.27	พนักงานทุกคนที่ทำงานในองค์กรนี้ มีความรู้สึกอบอุ่นเหมือนเป็นครอบครัวเดียวกัน	1	2	3	4	5
4.28	ท่านได้รับโอกาสที่จะปรับปรุงทักษะของตนเองอย่างแท้จริง ผ่านการศึกษาและฝึกอบรมที่องค์กรนี้	1	2	3	4	5
4.29	ท่านได้รับโอกาสที่จะได้รับการฝึกอบรมที่เกี่ยวข้องกับงานที่ท่านทำอย่างเพียงพอ	1	2	3	4	5
4.30	หัวหน้างานของท่าน ให้ความช่วยเหลือเพื่อที่จะให้ท่านได้รับโอกาสในการฝึกอบรมเกี่ยวกับงาน ที่ท่านมีความจำเป็นต้องได้รับการอบรม	1	2	3	4	5
4.31	ท่านได้รับการฝึกอบรมอย่างต่อเนื่อง ทำให้ท่านสามารถทำงานได้ดีขึ้น	1	2	3	4	5
4.32	ท่านมีความพอใจเกี่ยวกับปริมาณ/จำนวน โปรแกรมการฝึกอบรมและพัฒนาที่มีให้แก่ท่าน	1	2	3	4	5
4.33	โดยรวมแล้ว ท่านพึงพอใจกับโอกาสในการได้รับการฝึกอบรมที่จัดให้	1	2	3	4	5
4.34	มีความพยายามในการรับฟังความคิดเห็นของพนักงานในหน่วยงานของท่าน	1	2	3	4	5
4.35	พนักงานได้รับการสนับสนุนให้พยายามหาทางแก้ไขปัญหาในการทำงาน	1	2	3	4	5
4.36	ท่านมีความรู้สึกได้รับการสนับสนุนให้พยายามทำในสิ่งใหม่ๆ ที่ดีขึ้นกว่าเดิม	1	2	3	4	5
4.37	ท่านมีส่วนร่วมในการพิจารณากำหนด เป้าหมายในการวัดผลการปฏิบัติงานประจำปี	1	2	3	4	5
4.38	ท่านมีความภูมิใจเป็นอย่างยิ่ง ที่ได้มาปฏิบัติงานในสายงานที่ท่านอยู่ปัจจุบัน	1	2	3	4	5
4.39	ท่านต้องการทำงานในหน้าที่ที่ท่านอยู่นี้ต่อไปเรื่อยๆ ไม่รู้สึกเบื่อหน่าย	1	2	3	4	5
4.40	งานที่ท่านปฏิบัติอยู่ในขณะนี้ เป็นที่ถูกใจท่านมาก	1	2	3	4	5
4.41	ท่านเคยมีความคับข้องใจในการทำงาน จนบางครั้งคิดจะลาออกจากงาน	1	2	3	4	5
4.42	หน่วยงานของท่าน มักพิจารณามอบหมายงานให้พนักงานได้ทำงานตามความสามารถและความถนัด	1	2	3	4	5
4.43	ท่านไม่ค่อยมีบทบาทในการแสดงความสามารถในการปฏิบัติงาน	1	2	3	4	5
4.44	งานที่ท่านทำอยู่ในขณะนี้ สอดคล้องกับความรู้และความสามารถของท่าน	1	2	3	4	5
4.45	ท่านรู้สึกเบื่อหน่ายต่องานที่ท่านทำอยู่ในขณะนี้	1	2	3	4	5



### ตอนที่ 5 แบบสำรวจความคิดเห็นของพนักงานต่อพฤติกรรมองค์การ

ประโยคคำถามต่อไปนี้ จะสัมพันธ์กับความคิดเชื่อและทัศนคติของท่านที่มีต่อพฤติกรรมองค์การที่ท่านทำงานอยู่ในขณะนี้ กรุณาตอบคำถามโดยวงกลมรอบตัวเลขที่แสดงความรู้สึกของท่านได้ดีที่สุดในแต่ละข้อ โดยเริ่มจาก :

**1= ไม่เห็นด้วยอย่างยิ่ง, 2=ไม่เห็นด้วย, 3=ไม่แน่ใจ, 4=เห็นด้วย, และ 5=เห็นด้วยอย่างยิ่ง**

5.1 พนักงานจะได้รับผลตอบแทนตามสัดส่วนของผลงานที่ได้ทำลงไป	1	2	3	4	5
5.2 พนักงานที่มีผลการทำงานที่ดี จะได้รับการสนับสนุนและผลักดันอย่างดียิ่ง	1	2	3	4	5
5.3 การประเมินผลงานรายบุคคล จะสอดคล้องและอ้างอิงกับผลสำเร็จตามวัตถุประสงค์ของงาน	1	2	3	4	5
5.4 หลักเกณฑ์ในการประเมินผลการทำงานของท่านมีความชัดเจนดี	1	2	3	4	5
5.5 ผลตอบแทนที่ท่านได้รับ จะขึ้นกับผลการปฏิบัติงานของท่านเสมอ	1	2	3	4	5
5.6 การเลื่อนขั้น/เลื่อนตำแหน่ง จะขึ้นกับความสามารถเฉพาะบุคคล	1	2	3	4	5
5.7 ผู้บริหารระดับสูงมักจะไม่ค่อยมกพบปะพูดคุยกับพนักงาน และมักจะไม่ค่อยให้ความสำคัญกับตนเอง	1	2	3	4	5
5.8 หากท่านมีคำถามในการทำงานต่อหัวหน้างาน มีแนวโน้มว่า ท่านอาจจะเป็นตัวปัญหาขององค์การ	1	2	3	4	5
5.9 องค์การของท่าน จะไม่ให้ความสำคัญกับปัญหาส่วนตัวของพนักงาน	1	2	3	4	5
5.10 ท่านมีความรู้สึกผูกพันกลมเกลียวเป็นอย่างมากในทีมงานของท่าน	1	2	3	4	5
5.11 องค์การของท่าน ให้ความสำคัญต่อท่านเป็นอย่างมาก โดยเฉพาะในด้านการพัฒนาส่วนตัวท่าน	1	2	3	4	5
5.12 ในองค์การของท่าน ภารกิจหน้าที่ และความรับผิดชอบ ของพนักงานแต่ละคน มีความชัดเจน	1	2	3	4	5
5.13 องค์การของท่านได้กำหนด กฎ ระเบียบ และข้อบังคับ ในการทำงาน ในแต่ละกิจกรรมหน้าที่ของแต่ละงาน	1	2	3	4	5
5.14 ในองค์การของท่าน ข้อมูลข่าวสารภายในองค์การ มีการเผยแพร่ประชาสัมพันธ์อย่างทั่วถึง	1	2	3	4	5
5.15 ในองค์การของท่าน วัตถุประสงค์ในการทำงานของพนักงาน โดยทั่วไปจะชัดเจน	1	2	3	4	5
5.16 องค์การของท่าน สนับสนุนให้ความร่วมมือ ร่วมแรง ร่วมใจในการทำงาน ระหว่างแผนก/ฝ่าย เป็นอย่างดี	1	2	3	4	5
5.17 องค์การของท่าน มักแสวงหาโอกาสทางการตลาด หรือช่องทางการให้บริการใหม่ๆ อยู่เสมอ	1	2	3	4	5
5.18 องค์การของท่าน มักจะได้รับการประเมินโดยการเปรียบเทียบกับองค์กรอื่นๆ อยู่เสมอ	1	2	3	4	5
5.19 องค์การของท่าน มักลงทุนในการพัฒนาผลิตภัณฑ์/บริการ ใหม่ ๆ เป็นประจำ	1	2	3	4	5
5.20 องค์การของท่านมักแสวงหาโอกาสในการเติบโต จากสภาพแวดล้อมภายนอกองค์การ	1	2	3	4	5

## ตอนที่ 6 แบบสำรวจความผูกพันของพนักงานที่มีต่อองค์กร

ประโยคคำถามต่อไปนี้ จะสัมพันธ์กับความรู้สึกและความผูกพันของท่านที่มีต่อองค์กรที่ท่านทำงานอยู่ในขณะนี้

กรุณาตอบคำถามโดยวงกลมรอบตัวเลขที่แสดงความรู้สึกของท่านได้ดีที่สุดในแต่ละข้อ โดยเริ่มจาก :

**1= ไม่เห็นด้วยอย่างยิ่ง, 2=ไม่เห็นด้วย, 3=ไม่แน่ใจ, 4=เห็นด้วย, และ 5=เห็นด้วยอย่างยิ่ง**

6.1 ท่านรู้สึกว่าคงจะไม่มีใครมีความผูกพันต่อองค์กรนี้แน่นอน แม้ว่าจะต้องทำงานต่อไปอีกนาน	1	2	3	4	5
6.2 ถึงแม้ว่าท่านจะได้รับข้อเสนอผลประโยชน์ตอบแทนจากการไปทำงานที่อื่นที่ดีกว่า แต่ท่านมีความรู้สึกผิด หากจะลาออกจากที่นี่ไปในขณะนี้	1	2	3	4	5
6.3 ท่านมีความรู้สึกรักภักดี ต่อองค์กรนี้เป็นอย่างมาก	1	2	3	4	5
6.4 ท่านรู้สึกว่า เป็นความรับผิดชอบของท่านที่มีต่อเพื่อนร่วมงาน ท่านจึงยังไม่ลาออกจากองค์กรไปในขณะนี้	1	2	3	4	5
6.5 ท่านรู้สึกว่า องค์กรนี้มีบุญคุณต่อท่านเป็นอย่างมาก	1	2	3	4	5
6.6 ท่านจะมีความสุขมากที่ได้ทำงานอยู่ในองค์กรนี้ ตลอดชีวิตการทำงานของท่าน	1	2	3	4	5
6.7 ท่านมีความสุขที่ดี หากได้พูดคุยกับบุคคลอื่นเกี่ยวกับองค์กรของท่าน	1	2	3	4	5
6.8 ท่านรู้สึกว่า ปัญหาขององค์กร ก็คือปัญหาของท่านเองด้วย	1	2	3	4	5
6.9 ท่านไม่รู้สึกว่า “เป็นส่วนหนึ่งขององค์กรนี้”	1	2	3	4	5
6.10 ท่านไม่รู้สึกว่า “มีความผูกพัน” ต่อองค์กรนี้	1	2	3	4	5
6.11 องค์กรนี้ มีความหมายต่อตัวท่านเป็นอย่างมาก	1	2	3	4	5
6.12 ท่านไม่รู้สึกว่า เป็นเจ้าขององค์กรนี้มากนัก	1	2	3	4	5
6.13 แม้ว่าท่านอยากจะลาออกจากที่นี่ แต่ท่านรู้สึกว่า น่าจะมีความยุ่งยากเกิดขึ้นกับตัวท่านที่จะออกจากที่นี่ไปในขณะนี้	1	2	3	4	5
6.14 หากท่านตัดสินใจลาออกจากที่นี่ในตอนนี้ อาจเกิดความยุ่งยากต่อชีวิตของท่านเป็นอย่างมาก	1	2	3	4	5
6.15 การที่ท่านต้องทำงานอยู่ที่นั่นในขณะนี้นั้น เป็นความจำเป็นพอๆ กับ เป็นความต้องการของตัวท่านเอง	1	2	3	4	5
6.16 ท่านมีทางเลือกอื่นๆ ไม่มากนัก จนไม่คิดที่จะลาออกจากที่ทำงานอยู่ที่นี่	1	2	3	4	5
6.17 ข้อเสียประการหนึ่งของการออกจากที่นี่ คือการเสียผลประโยชน์ที่ควรจะได้รับจากองค์กร	1	2	3	4	5
6.18 เหตุผลหลักที่ท่านยังคงทำงานต่อกับองค์กรนี้ คือ การออกจากที่นี่อาจเกิดผลเสียมากกว่า เพราะที่อื่นอาจให้ผลประโยชน์ตอบแทนน้อยกว่าที่เดิม	1	2	3	4	5

### ตอนที่ 7 ความคิดเห็นและข้อเสนอแนะ

1. ท่านมีความเห็นว่า อะไรเป็นสาเหตุหรืออุปสรรคที่สำคัญที่ทำให้องค์การของท่าน มีประสิทธิภาพในการทำงานได้ไม่เต็มที่ โปรดระบุสาเหตุ/ปัญหา

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2. ท่านมีความเห็นว่า การเปลี่ยนแปลงโครงสร้างการบริหารงาน โดยการแปลงสภาพองค์การ จะมีผลต่อประสิทธิภาพการทำงานขององค์การของท่านหรือไม่ เพราะเหตุใด

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3. ตามความเห็นของท่าน มีปัจจัยใดบ้าง ที่น่าจะช่วยสนับสนุนและเป็นแรงผลักดันให้เกิดความผูกพันและความทุ่มเทในการทำงานของพนักงานเป็นอย่างมาก จนส่งผลให้เกิดผลประกอบการขององค์การที่ดีขึ้น

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4. ข้อเสนอแนะ และ/หรือ คำแนะนำอื่น ๆ

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## **APPENDIX D**

### **In-Depth Interview Guidelines**

## **IN-DEPTH INTERVIEW GUIDELINES**

1. Presently, energy consumption in the world and Thailand is sharply increasing. Do you think this could lead to a lack of qualified manpower, both in terms of quantity and specialists, in the energy sector in Thailand?
2. Is your organization concerned about human resources management? At what level? Is your organization prepared for a lack of qualified manpower in this sector? How?
3. What kind of factors do you think affect organizational commitment and increase the levels of the hard work of employees in your organization?
4. What are the causes and/or obstacles that have been keeping your organization from operating as effectively and as efficiently as it could? And, how can these causes/obstacles be solved?
5. Has your organization been corporatized and at what level? How did most of your employees react to this policy?
6. Do you agree with the public enterprise reform policy being implemented in your organization? Without the reform policy, do you think your organization would be able to improve and increase its capacity and performance to compete with other organizations in the future? And, in what ways?
7. Do you think that the state enterprise reform policy affects the socio-economic situation of the country? How?
8. In your opinion, does the public enterprise reform affect the effectiveness of your organization? How? Does your organization need the policy to improve its effectiveness?
9. In your opinion, how has the public enterprise reform affected the employees in your organization? What kind of expectations do most of the employees have?
10. Are the leaders in your organizations concerned about public reform? How does your organization communicate this policy to its employees?

11. In your organization, does the labor union play a significant role in the success or failure of the implementation of the state enterprise reform policy? How did the labor union react to the policy?
12. In your opinion, how has the state enterprise reform created short-term and long-term organizational changes?
13. In your opinion, has the state enterprise reform affected the level of organizational commitment (increased or decreased)? How has the policy affected the employees' wellbeing in your organization?
14. Do you think that the state enterprise reform is a cause of work stress for employees (e.g., increasing the level of work stress, increasing job insecurity, reducing job satisfaction, etc.) that reduces employees' performance?
15. Compared to a couple of years ago, has your organization adopted to and changed its management practices? Are there any changes that have occurred from the state enterprise reform policy?
16. In your opinion, has the state enterprise reform created conflicts in your organization? How? Does your organization have any procedures to prevent such conflicts?
17. Do you think that the state enterprise reform is suitable to the cultures, beliefs, and values of your employees and organization? How?
18. In the event that the government needs to implement the state enterprise policy in your organization, do you have any suggestions or recommendations on this subject, particularly regarding suggestions for employees?
19. In your opinion, what are the major causes and problems in the implementation of the state enterprise reform in Thailand?
20. Other suggestions/recommendations (please specify).

## **APPENDIX E**

### **AMOS Command, Data Analysis and Goodness-of-Fit Indexes**

## **PRINTOUT BY AMOS VERSION 16.0**

### **Analysis Summary**

#### **Groups**

##### **Group number 1 (Group number 1)**

##### **Notes for Group (Group number 1)**

The model is recursive.

Sample size = 589

#### **Variable Summary (Group number 1)**

##### **Your model contains the following variables (Group number 1)**

Observed, endogenous variables

satisfac

particip

developm

cooperat

supervis

empower

reward

payment

external

organiz

peoplecu

performa

ambiguit

conflict

insecuri

communic



percepti

affectiv

continua

normativ

Unobserved, endogenous variables

commitment

Unobserved, exogenous variables

human resources

e8

e7

e6

e5

e4

e3

e2

e1

work related

e12

e11

e10

e9

change related

e17

e16

e15

e14

e13

e18

e19

e20

ec

### **Variable counts (Group number 1)**

Number of variables in your model:	45
Number of observed variables:	20
Number of unobserved variables:	25
Number of exogenous variables:	24
Number of endogenous variables:	21

**Parameter summary (Group number 1)**

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	25	0	0	0	0	25
Labeled	0	0	0	0	0	0
Unlabeled	19	34	24	0	0	77
Total	44	34	24	0	0	102

**Models****Default model (Default model)****Notes for Model (Default model)****Computation of degrees of freedom (Default model)**

Number of distinct sample moments:	210
Number of distinct parameters to be estimated:	122
Degrees of freedom (210 - 122):	88

**Result (Default model)**

Minimum was achieved  
 Chi-square = 78.157  
 Degrees of freedom = 88  
 Probability level = .764

**Group number 1 (Group number 1 - Default model)****Estimates (Group number 1 - Default model)****Scalar Estimates (Group number 1 - Default model)****Maximum Likelihood Estimates****Regression Weights: (Group number 1 - Default model)**

	Estimate	S.E.	C.R.	P	Label
commitment<--- human resources	.552	.297	1.859	.063	
commitment<--- work related	.886	.355	2.492	.013	
commitment<--- change related	-.982	.554	-1.772	.076	
satisfac <--- human resources	1.000				
particip <--- human resources	1.225	.119	10.314	***	
developm <--- human resources	1.160	.112	10.346	***	
cooperat <--- human resources	.860	.094	9.158	***	

		Estimate	S.E.	C.R.	P	Label
supervis	<--- human resources	1.197	.117	10.262	***	
empower	<--- human resources	1.092	.104	10.458	***	
reward	<--- human resources	.994	.101	9.831	***	
payment	<--- human resources	.699	.083	8.387	***	
external	<--- work related	1.000				
organiz	<--- work related	1.073	.097	11.013	***	
peoplecu	<--- work related	1.051	.109	9.668	***	
performa	<--- work related	1.248	.135	9.264	***	
ambiguit	<--- change related	1.000				
conflict	<--- change related	-1.169	.143	-8.170	***	
insecuri	<--- change related	-.630	.123	-5.129	***	
communic	<--- change related	1.652	.181	9.118	***	
percepti	<--- change related	.308	.137	2.251	.024	
affectiv	<--- commitment	1.000				
continua	<--- commitment	.086	.076	1.131	.258	
normativ	<--- commitment	1.055	.111	9.534	***	

**Standardized Regression Weights: (Group number 1 - Default model)**

		Estimate
commitment	<--- human resources	.464
commitment	<--- work related	.625
commitment	<--- change related	-.486
satisfac	<--- human resources	.663
particip	<--- human resources	.751
developm	<--- human resources	.708
cooperat	<--- human resources	.546
supervis	<--- human resources	.690
empower	<--- human resources	.730
reward	<--- human resources	.629
payment	<--- human resources	.478
external	<--- work related	.496
organiz	<--- work related	.655
peoplecu	<--- work related	.600
performa	<--- work related	.617

		Estimate
ambiguit	<--- change related	.487
conflict	<--- change related	-.410
insecuri	<--- change related	-.228
communic	<--- change related	.623
percepti	<--- change related	.097
affectiv	<--- commitment	.657
continua	<--- commitment	.058
normativ	<--- commitment	.811

**Covariances: (Group number 1 - Default model)**

		Estimate	S.E.	C.R.	P	Label
human resources	<--> work related	.154	.020	7.596	***	
work related	<--> change related	.095	.013	7.487	***	
human resources	<--> change related	.122	.016	7.515	***	
e8	<--> e10	.093	.015	6.189	***	
e2	<--> e1	.099	.016	6.269	***	
e8	<--> ec	.096	.021	4.575	***	
e2	<--> e9	.090	.016	5.563	***	
e8	<--> e17	.043	.013	3.306	***	
e1	<--> e9	.064	.016	3.925	***	
e14	<--> e13	.098	.022	4.461	***	
e8	<--> work related	-.005	.012	-.424	.672	
e8	<--> human resources	-.019	.016	-1.129	.259	
e15	<--> e19	.095	.025	3.831	***	
e2	<--> e13	.019	.018	1.036	.300	
e12	<--> e11	.050	.016	3.068	.002	
e8	<--> e20	-.006	.021	-.274	.784	
e8	<--> e7	-.031	.011	-2.778	.005	
e5	<--> e1	-.052	.014	-3.589	***	
e9	<--> e17	-.033	.014	-2.421	.015	
e10	<--> ec	.053	.020	2.734	.006	
e15	<--> e13	.014	.024	.573	.567	
e9	<--> human resources	.015	.012	1.259	.208	
e11	<--> e14	.016	.014	1.114	.265	
e1	<--> e18	.012	.016	.760	.448	
e3	<--> e17	.024	.011	2.113	.035	
e4	<--> e1	-.043	.014	-2.979	.003	

		Estimate	S.E.	C.R.	P	Label
e7	<--> e6	.028	.014	1.999	.046	
e19	<--> change related	-.013	.009	-1.364	.173	
e14	<--> human resources	-.047	.013	-3.594	***	
e16	<--> e19	.058	.025	2.294	.022	
e10	<--> e20	.012	.020	.574	.566	
e1	<--> e10	-.020	.012	-1.707	.088	
e2	<--> e12	-.039	.015	-2.654	.008	
e3	<--> change related	.013	.006	2.032	.042	

**Correlations: (Group number 1 - Default model)**

		Estimate
human resources	<--> work related	.884
work related	<--> change related	.928
human resources	<--> change related	.994
e8	<--> e10	.315
e2	<--> e1	.302
e8	<--> ec	.397
e2	<--> e9	.264
e8	<--> e17	.164
e1	<--> e9	.179
e14	<--> e13	.208
e8	<--> work related	-.025
e8	<--> human resources	-.074
e15	<--> e19	.163
e2	<--> e13	.039
e12	<--> e11	.156
e8	<--> e20	-.025
e8	<--> e7	-.117
e5	<--> e1	-.147
e9	<--> e17	-.111
e10	<--> ec	.227
e15	<--> e13	.023
e9	<--> human resources	.055
e11	<--> e14	.059
e1	<--> e18	.033
e3	<--> e17	.108
e4	<--> e1	-.127
e7	<--> e6	.106
e19	<--> change related	-.059
e14	<--> human resources	-.187
e16	<--> e19	.102

		Estimate
e10	<--> e20	.052
e1	<--> e10	-.065
e2	<--> e12	-.105
e3	<--> change related	.105

**Variances: (Group number 1 - Default model)**

	Estimate	S.E.	C.R.	P	Label
human resources	.208	.037	5.625	***	
work related	.147	.026	5.671	***	
change related	.072	.013	5.641	***	
ec	.193	.031	6.287	***	
e8	.302	.020	14.883	***	
e7	.242	.018	13.508	***	
e6	.278	.019	14.284	***	
e5	.361	.022	16.114	***	
e4	.328	.022	14.907	***	
e3	.217	.015	14.348	***	
e2	.313	.020	15.491	***	
e1	.342	.021	16.164	***	
e12	.450	.029	15.573	***	
e11	.225	.017	13.047	***	
e10	.287	.020	14.632	***	
e9	.372	.028	13.347	***	
e17	.232	.015	15.866	***	
e16	.488	.029	16.556	***	
e15	.520	.030	17.077	***	
e14	.310	.025	12.180	***	
e13	.714	.042	17.135	***	
e18	.388	.036	10.774	***	
e19	.649	.038	17.102	***	
e20	.170	.033	5.198	***	

**Squared Multiple Correlations: (Group number 1 - Default model)**

	Estimate
commitment	.443
normativ	.658
continua	.007
affectiv	.432
percepti	.009
communic	.388
insecuri	.052
conflict	.168
ambiguit	.237
performa	.380
peoplecu	.360
organiz	.429
external	.246
payment	.229
reward	.396
empower	.533
supervis	.476
cooperat	.298
developm	.501
particip	.563
satisfac	.362

**Total Effects (Group number 1 - Default model)**

	change related	work related	human resources	commitment
commitment	-.982	.886	.552	.000
normativ	-1.036	.935	.583	1.055
continua	-.084	.076	.047	.086
affectiv	-.982	.886	.552	1.000
percepti	.308	.000	.000	.000
communic	1.652	.000	.000	.000
insecuri	-.630	.000	.000	.000
conflict	-1.169	.000	.000	.000
ambiguit	1.000	.000	.000	.000
performa	.000	1.248	.000	.000
peoplecu	.000	1.051	.000	.000
organiz	.000	1.073	.000	.000
external	.000	1.000	.000	.000
payment	.000	.000	.699	.000
reward	.000	.000	.994	.000

	change related	work related	human resources	commitment
empower	.000	.000	1.092	.000
supervis	.000	.000	1.197	.000
cooperat	.000	.000	.860	.000
developm	.000	.000	1.160	.000
particip	.000	.000	1.225	.000
satisfac	.000	.000	1.000	.000

**Standardized Total Effects (Group number 1 - Default model)**

	change related	work related	human resources	commitment
commitment	-.486	.625	.464	.000
normativ	-.394	.507	.377	.811
continua	-.028	.036	.027	.058
affectiv	-.319	.411	.305	.657
percepti	.097	.000	.000	.000
communic	.623	.000	.000	.000
insecuri	-.228	.000	.000	.000
conflict	-.410	.000	.000	.000
ambiguit	.487	.000	.000	.000
performa	.000	.617	.000	.000
peoplecu	.000	.600	.000	.000
organiz	.000	.655	.000	.000
external	.000	.496	.000	.000
payment	.000	.000	.478	.000
reward	.000	.000	.629	.000
empower	.000	.000	.730	.000
supervis	.000	.000	.690	.000
cooperat	.000	.000	.546	.000
developm	.000	.000	.708	.000
particip	.000	.000	.751	.000
satisfac	.000	.000	.663	.000

**Direct Effects (Group number 1 - Default model)**

	change related	work related	human resources	commitment
commitment	-.982	.886	.552	.000
normativ	.000	.000	.000	1.055
continua	.000	.000	.000	.086
affectiv	.000	.000	.000	1.000
percepti	.308	.000	.000	.000
communic	1.652	.000	.000	.000
insecuri	-.630	.000	.000	.000



	change related	work related	human resources	commitment
conflict	-1.169	.000	.000	.000
ambiguit	1.000	.000	.000	.000
performa	.000	1.248	.000	.000
peoplecu	.000	1.051	.000	.000
organiz	.000	1.073	.000	.000
external	.000	1.000	.000	.000
payment	.000	.000	.699	.000
reward	.000	.000	.994	.000
empower	.000	.000	1.092	.000
supervis	.000	.000	1.197	.000
cooperat	.000	.000	.860	.000
developm	.000	.000	1.160	.000
particip	.000	.000	1.225	.000
satisfac	.000	.000	1.000	.000

**Standardized Direct Effects (Group number 1 - Default model)**

	change related	work related	human resources	commitment
commitment	-.486	.625	.464	.000
normativ	.000	.000	.000	.811
continua	.000	.000	.000	.058
affectiv	.000	.000	.000	.657
percepti	.097	.000	.000	.000
communic	.623	.000	.000	.000
insecuri	-.228	.000	.000	.000
conflict	-.410	.000	.000	.000
ambiguit	.487	.000	.000	.000
performa	.000	.617	.000	.000
peoplecu	.000	.600	.000	.000
organiz	.000	.655	.000	.000
external	.000	.496	.000	.000
payment	.000	.000	.478	.000
reward	.000	.000	.629	.000
empower	.000	.000	.730	.000
supervis	.000	.000	.690	.000
cooperat	.000	.000	.546	.000
developm	.000	.000	.708	.000
particip	.000	.000	.751	.000
satisfac	.000	.000	.663	.000

**Indirect Effects (Group number 1 - Default model)**

	change related	work related	human resources	commitment
commitment	.000	.000	.000	.000
normativ	-1.036	.935	.583	.000
continua	-.084	.076	.047	.000
affectiv	-.982	.886	.552	.000
percepti	.000	.000	.000	.000
communic	.000	.000	.000	.000
insecuri	.000	.000	.000	.000
conflict	.000	.000	.000	.000
ambiguit	.000	.000	.000	.000
performa	.000	.000	.000	.000
peoplecu	.000	.000	.000	.000
organiz	.000	.000	.000	.000
external	.000	.000	.000	.000
payment	.000	.000	.000	.000
reward	.000	.000	.000	.000
empower	.000	.000	.000	.000
supervis	.000	.000	.000	.000
cooperat	.000	.000	.000	.000
developm	.000	.000	.000	.000
particip	.000	.000	.000	.000
satisfac	.000	.000	.000	.000

**Standardized Indirect Effects (Group number 1 - Default model)**

	change related	work related	human resources	commitment
commitment	.000	.000	.000	.000
normativ	-.394	.507	.377	.000
continua	-.028	.036	.027	.000
affectiv	-.319	.411	.305	.000
percepti	.000	.000	.000	.000
communic	.000	.000	.000	.000
insecuri	.000	.000	.000	.000
conflict	.000	.000	.000	.000
ambiguit	.000	.000	.000	.000
performa	.000	.000	.000	.000
peoplecu	.000	.000	.000	.000
organiz	.000	.000	.000	.000
external	.000	.000	.000	.000
payment	.000	.000	.000	.000
reward	.000	.000	.000	.000

	change related	work related	human resources	commitment
empower	.000	.000	.000	.000
supervis	.000	.000	.000	.000
cooperat	.000	.000	.000	.000
developm	.000	.000	.000	.000
particip	.000	.000	.000	.000
satisfac	.000	.000	.000	.000

### Model Fit Summary

#### CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	122	78.157	88	.764	.888
Saturated model	210	.000	0		
Independence model	20	3807.223	190	.000	20.038

#### RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.020	.957	.932	.606
Saturated model	.000	1.000		
Independence model	.146	.372	.306	.337

#### Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.928	.897	.961	.944	.961
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

#### Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.700	.650	.673
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

**NCP**

Model	NCP	LO 90	HI 90
Default model	141.552	97.937	192.935
Saturated model	.000	.000	.000
Independence model	3617.223	3420.363	3821.382

**FMIN**

Model	FMIN	F0	LO 90	HI 90
Default model	.467	.241	.167	.328
Saturated model	.000	.000	.000	.000
Independence model	6.475	6.152	5.817	6.499

**RMSEA**

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.043	.035	.050	.958
Independence model	.180	.175	.185	.000

**AIC**

Model	AIC	BCC	BIC	CAIC
Default model	428.552	434.256	765.691	842.691
Saturated model	420.000	435.556	1339.469	1549.469
Independence model	3847.223	3848.704	3934.791	3954.791

**ECVI**

Model	ECVI	LO 90	HI 90	MECVI
Default model	.729	.655	.816	.739
Saturated model	.714	.714	.714	.741
Independence model	6.543	6.208	6.890	6.545

**HOELTER**

Model	HOELTER .05	HOELTER .01
Default model	345	373
Independence model	35	37

## **BIOGRAPHY**

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