

**A CAUSAL RELATIONSHIP BETWEEN STRATEGIC HUMAN
RESOURCE DEVELOPMENT DESIGN AND EMPLOYEE
PERFORMANCE OF STATE ENTERPRISES LISTED ON THE
STOCK EXCHANGE OF THAILAND**



Phaitoon Inuthai

**A Dissertation Submitted in Partial
Fulfillment of the Requirements for the Degree of
Doctor of Public Administration
School of Public Administration
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ABSTRACT

Title of Dissertation	A CAUSAL RELATIONSHIP BETWEEN STRATEGIC HUMAN RESOURCE DEVELOPMENT DESIGN AND EMPLOYEE PERFORMANCE OF STATE ENTERPRISES LISTED ON THE STOCK EXCHANGE OF THAILAND
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The purpose of this study is to design a structural equation model and to test the confirmatory factor analysis (CFA) in order to explain the effect of strategic human resource development on the employee performance of state enterprises listed on the Stock Exchange of Thailand. Importantly, the review of relevant literature is implemented in order to explore the concept of strategic human resource development (SHRD), aiming at investigating the design of SHRD. It also focuses on exploring the role of job satisfaction and employee commitment as mediators and the role of career development needs as a moderator to adjust the relationship of the designed SHRD and employee performance.

The respondents from the data collection were a total of 337 employees that participated in this study through the implementation of structural equation modeling (SEM) using AMOS program to explain the performance results of employees. The empirical findings from the qualified sample cases showed that the proposed structural model confirmed the hypothesized construct paths to be consistent with the theoretical model verified by the acceptable criteria for the fit indices. The key findings revealed that job satisfaction and employee commitment fully mediated employee performance. The interaction of career development needs with SHRD design showed a direct effect on employee performance, while its interaction with job satisfaction and commitment showed indirect effects during the second-stage moderation.

When considering the indicators used in the test to support the two contexts of SHRD, the three indicators of the developmental context—individual learning,

emotional intelligence development, and strategic capability development—highly supported the SHRD design. In terms of the organizational context for the creation of a healthy environment, this context included top management support, HRD plans and policies, HRD professional roles, supervisor involvement, and evaluation of HRD. Every indicators highly supported the designed SHRD. The results of the empirical test led to the strengthening of the SHRD concept.

The empirical findings from this study provide guidelines for organizational management in terms of the implementation of strategic human resource development mainly in the state enterprises, where implementation should take into account the organizational and developmental contexts. Importantly, this implementation should align with the organization's strategy to support the work efficiency of employees. A critical suggestion from this study points out that investing in the SHRD of the organization, contributing to effective employee performance, should be carried out in parallel with imbuing employees with high job satisfaction and commitment to the organization.

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I would also like to thank my parents and my other family members for their encouragement and care as they looked forward to the day of my success. My thanks also go to my colleagues and fellow students in the Doctor of Public Administration program for their support.

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ABBREVIATIONS

Abbreviations

AGFI

AOT

AVE

CDN

χ^2

χ^2/Df

CFI

CR

CFA

Df

DC

EC

ECNIDA

EP

GFI

IOC

IE

JS

KI

Kur

ML

MCOT

MSQ

MI

NIDA

Equivalence

Adjusted Goodness Fit Index

Airports of Thailand Public Company Limited

Average Variance Extracted

Career Development Needs

Chi-square

Chi-square/Degree of Freedom

Comparative Fit Index

Composite Reliability

Confirmatory Factor Analysis

Degree of Freedom

Developmental Context

Employee Commitment

Ethics Committee in Human Research of National

Institute of Development Administration

Employee Performance

Goodness Fit Index

Index of Item - Objective Congruence

Indirect Effect

Job Satisfaction

Key Informant

Kurtosis

Maximum Likelihood

MCOT Public Company Limited

Minnesota Satisfaction Questionnaire

Modification Indices

National Institute of Development Administration

Abbreviations

ns

OC

P-Value

PTTEP

PTT

 χ^2/Df

RMSEA

RMR

Skew

SMC

SD

 β

SHRD

SEM

TE

TLI

Equivalence

Not Significant

Organizational Context

Probability Value

PTT Exploration and Production Public Company Limited

PTT Public Company Limited

Relative Chi-square

Root Mean Square Error of Approximation

Root Mean Square Residual

Skewness

Square Multiple Correlation

Standard Deviation

Standardized Estimates or Path Coefficient

Strategic Human Resource Development

Structural Equation Modeling

Total Effect

Tucker-Lewis Index

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Since the beginning of the 21st century, the management of all aspects of the organization has changed dramatically and still needs to be slightly adjusted continuously. These managerial adjustments result from social changes and technological advancements that continue to influence people's lifestyles and consumer behavior. The changes in organizations are probably not only caused by direct social and technological changes but also by the directions and public policies of governments in some countries, including large organizations of the private sector around the world. Through the ripple effect, many of these organizations have an influence on changing the management styles of other organizations. For example, a leading organization in communication technology can change the means of communication in many organizations. At the same time, it can also change people's behavior in communication. The effect of such change intensified with the emergence of the global COVID-19 pandemic in 2019. Certainly, various effects on performance prevent many organizations from meeting their goals. Those organizations find it difficult to deny that some of the reasons are not due to the performance of the personnel within the organizations, who may be unable to respond to changes that occur both inside and outside the organization. The situation as such pressures both public and private organizations to change their management to respond to changes in order to become more efficient. In particular, the public sector organizations, having a role and duty to minister to and serve the people, have to change their governance to a great extent to keep up with the changing directions in the era of globalization.

In addition, the public sector at present provides citizens with the opportunity to participate in the opinions and suggestions through public hearings or other mechanisms in order to streamline the managerial directions. Such public opinions

should be used to review the roles of the state in order to explore partnerships with the private sector, the civil society, and the people in order to take account of its reengineering of the aforementioned directions and regulatory policies. These factors have made the governments of each country pay more attention to adjusting their roles in order to form partnerships with business organizations and academic institutions as well as looking for cooperation between government (UNESCO, 2019). This also includes a review of the governments on matters related to public policies affected by the rapid changes in the global economy, technological advancement, and climate change. These changes have given governments the impetus to continually assess their performance based on people's needs and pressure from around the world.

In this same direction, the private sector needs to adjust its business strategy in accordance with the situation in order to continuously maintain its business potential and the level of ability to achieve goals. Maintaining these competencies depends on employee performance, as the organization must find ways to develop its employees. In this way they can perform consistently with the vision and mission that the organization has set in order to respond to changes and competition. This includes consistency with the organization's strategies, which generally include human resource strategies.

In terms of the human resource strategies of the organization, they are related to human resource management, recruitment, training, as well as the human resource development of the organization. In general, human resource development is the use of integrated principles for training and development, covering individual and organizational levels and career development for the employees of the organization. In this regard, the development in various dimensions is aimed at the effectiveness of the employees of the organization at the individual and team levels in order to ultimately achieve the organization's goals. When the principles are taken into account, the key goal of human resource development is to aim for the quality of life of employees and the creation of quality products and services for consumers on the basis of development (McLagan, 1989).

Nowadays, business organizations in Thailand, both private companies and state enterprises, are affected in the same direction as that happening globally. Both of these types of business organizations in Thailand are more likely to be affected by

international changes than to be the leaders of change. The obvious impact in the modern era is technological change, which has considerably altered customers' behavior. This has put business organizations under more pressure from increasingly intense business competition. Such business organizations need to strategize their management in response to the effects of those social changes. The idea is to try to maintain the ability of the organization to compete in business and to create returns to the organization at a satisfactory level to the shareholders. At the same time, the organization must create guidelines for encouraging employees to create their own performance, which can be considered the foundation leading to success in the organization's goals. Therefore, human resource development, considered as one of the essential tools of the organization, should become more strategic. This perspective on human resource development aims to enable employees to work in accordance with the vision and mission of the organization. In addition, the pressure from the rapid changes that affect the number and qualifications of workers in the current labor market may result in frequent employee turnover in the organization, thus destabilizing the organization in terms of establishing social relationships. On that account, for the employees of the organization to enhance their performance, the organization needs to boost their efficiency through learning and development so as to be in line with changes in the external environment. This is considered a guiding principle through the strategic human resource development of the organization.

During the past several years, strategic human resource development (SHRD) has become more widely accepted as an approach built on the concept of the currently available human resource development. It takes a comprehensive and long-term view of how human resource policies and practices may help businesses achieve their goals (Armstrong, 2014). This concept focuses on how to develop the knowledge and skills of employees and organizations as well as how to integrate work and employees' learning (Swanson & Holton, 2009). Human resource development can be used as a guideline in the developmental process in order to create employees with expertise at the individual, team, and organizational levels. Therefore, the integration of the traditional human resource development into the vision, mission, and strategy of the organization is necessary and drives the strategic human resource development. It is a guideline aimed at developing and applying this new concept to the organization in

the long run in terms of policy on the human resources of the organization. In other words, how strategic human resource development is implemented can lead to success in organizational goals. The concept developed from the existing human resource development is intended to be applied to human resources in all units of the organization. What is important is the ability to integrate employee development thought with the strategies of the organization. This new perspective is considered part of the strategic human resource management to create a competitive advantage for the organization.

It is obvious that the ultimate goal of the organization is its effectiveness. In general, the effectiveness of an organization is reflected in the profits that the organization generates or can be reflected in the return on equity of shareholders as business owners. This is true for the organization that is a public company, specifically one listed on the Stock Exchange of Thailand. As for the strategic human resource development in an organization, the organization must provide employees with satisfaction so that it results in the improvement of their performance. This is because employees are the main resource to drive the organization to achieve the organizational goals. Strategic human resource development is a type of management that must be consistent with the organization's business strategy. The human resource development of an organization is not usually determined based on just one of the problem issues within the organization; it arises from the consideration of the organizational structure as a whole to be used as a basis for the formulation of guidelines. Such management change is considered as an organizational strategy that focuses on business consistency and organizational structure (Boxall, 1992).

When discussing the impact of change, Smith (2011). stated that it can lead to work improvements and individual employee development, either directly or indirectly. Examples of obvious direct effects can be seen from the direct changes of various institutions in organizing training programs to increase the skills, knowledge, attitude and ability of employees so that they will have work characteristics that will be more effective. On the other hand, the reverse effect can cause changes in the development of employees in the future.

The existing knowledge on strategic human resource development in organizations, especially in international academic articles, theses, and research,

mostly focuses on the study of overall strategies or the relationships between job satisfaction and strategic human resource management. Equally focused on is the study of career development needs or aspirations suggested by academician Michael Armstrong (Armstrong, 2006) and other intrinsic factors, which are employees' job satisfaction and commitment. Many previous studies found that they affect the performance of employees and organizations. These intrinsic variables have been identified as influencing both independent and mediating roles. For example, Hendi (2019) focused on the mediating effect of both factors on the organizational learning effect of employee performance. However, relatively little research focuses on strategic human resource development, which is considered part of human resource strategies and strategic human resource management. In addition, achieving operational efficiency through strategic human resource development is a matter of interest in the search for the components of strategic human resource development. These SHRD components remain controversial in various ways as proposed to organizations in the form of alternative models.

When considering the research in Thailand on the study of human resource management, there has been no in-depth research on strategic human resource development. In addition, when looking into the contexts or samples in the study aforementioned, it is found that such study simply emphasizes business organizations as private, despite being both general public companies and those listed on the Stock Exchange of Thailand, including limited companies. Rarely has the study of state enterprises as public companies listed on the Stock Exchange of Thailand received attention. This research population was considered interesting in terms of finding the relationship between strategic human resource development design and employee performance. Therefore, this research focuses on the study of the design of strategic human resource developmental contexts in order to be in line with the objectives and goals of the organization for the development of employees. The researcher statistically tested such development design in order to ascertain the influence on employee performance. The present study also explores the influence of job satisfaction and employee commitment, which are expected to be mediating variables. In addition, this research focuses on the career development needs of employees, which were expected to play a moderating role in the relationship of each pair of

variables. As for the research sample, it aimed to explore the employees in state enterprises as public companies listed on the Stock Exchange of Thailand. The population in this research is a group of organizations with management experience, combining contexts from both government agencies and the private sector. Such state enterprises also exhibited management styles regarding human resource development that were generally under the concept and management viewpoint of the private sector. At the same time, government regulations and policies also needed to be taken into account.

1.2 Research Questions

Given the importance of the research problem, five research questions are addressed as follows:

1.2.1 How does strategic human resource development design correlate with job satisfaction and with the commitment of employees in state enterprises listed on the Stock Exchange of Thailand?

1.2.2 What are the relationships of job satisfaction and employee performance, as well as employee commitment and employee performance, in the state enterprises listed on the Stock Exchange of Thailand?

1.2.3 How does the strategic human resource development design directly and indirectly affect employee performance in state enterprises listed on the Stock Exchange of Thailand?

1.2.4 How do the career development needs of employees influence the following relationships?

1.2.4.1 The relationship between strategic human resource development design and employee performance in state enterprises listed on the Stock Exchange of Thailand

1.2.4.2 The relationship between employee commitment to and employee performance in state enterprises listed on the Stock Exchange of Thailand

1.2.4.3 The relationship between job satisfaction with and employee performance in state enterprises listed on the Stock Exchange of Thailand

1.2.5 How should the strategic human resource development design for employees of state enterprises listed on the Stock Exchange of Thailand look?

1.3 Research Objectives

The main research questions led to the answer of how the organization could improve employee performance through strategic human resource development. As such, the researcher set three important objectives in answering the questions related to the following:

1.3.1 To study the influence of job satisfaction and employee commitment as the mediating role of the relationship between strategic human resource development design and employee performance in state enterprises listed on the Stock Exchange of Thailand

1.3.2 To explain the influence of career development needs as the moderating role of job satisfaction, employee commitment, and strategic human resource development design versus employee performance in state enterprises listed on the Stock Exchange of Thailand

1.3.3 To develop a strategic human resource development design to be in line with organizational strategies and goals for improving employee performance in state enterprises listed on the Stock Exchange of Thailand

1.4 Scope of the Study

This is a mixed methods research, both quantitative and qualitative, that highlights strategic human resource development design to be in line with the strategies and goals of state enterprises as public companies listed on the Stock Exchange of Thailand with the following scope.

1.4.1 Scope of Population and Sample

The population in this study was state enterprise employees listed on the Stock Exchange of Thailand. There was a total of four companies, with a population in the reference study according to the 2020 annual report of each target state enterprise,

totaling 17,671 employees. For the samples in this analysis, the researcher determined the target number of samples selected from employees in each state enterprise in an equal proportion, with a minimum of 300 sample cases. In addition, the researcher collected qualitative data through in-depth interviews from key informants, selected from executives involved in the administration and the human resource management of each state enterprise, totaling four key informants.

1.4.2 Content Scope

This study focused on concepts and theories of the conformance of variables in strategic human resource development design, job satisfaction, employee commitment, career development needs, and employee performance.

1.4.3 Scope of Study Time

The researcher spent a total of two years and four months, from August 2019 to November 2021.

1.5 The Significance of the Study

In investigating the causal relationship of strategic human resource development design and employee performance, the observed variables are seen to be an interesting component of strategic human resource development. At the same time, there are still researchers trying to test and present the components as a strategic human resource development guideline. In addition, the study of strategic human resource development design consists of a review of relevant variables from various literature used in the search for related latent variables. They are expected to play an important role in mediating and moderating strategic human resource development design and employee performance in the theoretical structural model designed for testing state enterprise employees that belonged to public limited companies listed on the Stock Exchange of Thailand, which was the target population that the researcher specified in the study. Such listed state enterprises are organizations structured and empowered to make decisions, with the government as a major shareholder. They accounted for more than half of the total shares of the state enterprises listed on the Stock Exchange of Thailand under the Development of Supervision and Management

of State Enterprises Act, B.E. 2562 (2019) and the Budgetary Procedures Act, B.E. 2561 (2018). In terms of business management, however, their managerial cultures are both private and international, just like large public companies.

Within the function of this study, which is to explore the observed variables in each latent variable or construct expecting to support the improvement of employee performance of state enterprises listed on the Stock Exchange of Thailand, the researcher provides in-depth theoretical knowledge about strategic human resource development, job satisfaction, commitment, and the career development needs of employees. Therefore, this study focuses on various themes and components of latent variables for statistically testing the hypotheses. This research also explains the characteristics of the constructs and observed variables and directions of the relationships among such variables through in-depth interviews from the organization's executives.

1.6 Contributions of the Study

This study is expected to be useful in various fields, especially those involved at both the organizational and personal levels. Thus, the fields of knowledge that would be contributed to are:

1.6.1 The relationship between strategic human resource development design and the job satisfaction of employees of state enterprises listed on the Stock Exchange of Thailand

1.6.2 The relationship between strategic human resource development design and the employee commitment to state enterprises listed on the Stock Exchange of Thailand

1.6.3 The influence of job satisfaction and employee commitment in the role of mediators on the relationship between strategic human resource development design and employee performance in state enterprises listed on the Stock Exchange of Thailand

1.6.4 The influence of career development needs in the role of moderator among the relationships of job satisfaction and employee performance, employee commitment and employee performance, and strategic human resource development

design and employee performance in state enterprises listed on the Stock Exchange of Thailand

1.6.5 The relationship between strategic human resource development design and employee performance in state enterprises listed on the Stock Exchange of Thailand

Finally, the study will lead to design development for strategic human resource development that can positively affect employee performance in line with the strategies and goals of state enterprises listed on the Stock Exchange of Thailand, as well as for human resource professionals.

1.7 Terminology

In this study, the researcher defined the terminology for the readers so that they could gain more knowledge and understanding of this research. The terms and definitions of the research are as follows:

Table 1.1 Definitions of Terms

Terms	Definitions
Employee Performance	The results of operations in accordance with objectives and goals are set by the organization. Task performance is considered one of the behaviors of employees and has such important components as task performance, contextual performance, and adaptive performance (Borman & Brush, 1993; Pulakos, Arad, Donovan, & Plamondon, 2000).
Task Performance	Performance results according to the roles assigned by the organization, which is an organization's operating activities, such as production, marketing, purchasing, etc.

Terms	Definitions
Contextual Performance	Performance results in the context of the responsible job, which is not direct job performance but is a context related to responsible work, such as the behavior of workers showing kindness, selflessness, helping others in the work that supports the creation of work efficiency
Adaptive Performance	Performance results based on the ability to make adjustments in the characteristics of the individual's ability to modify the work under new situations that keep changing all the time and affecting operations
Job Satisfaction	The feelings or attitudes of personnel toward job assignments, where the feelings of likes or dislikes of employees are communicated regarding their assigned duties. They also include positive attitudes toward work and what they want to receive from their work that will eventually become satisfactory.
Employee Commitment	Positive attitudes or feelings of employees in the organization toward the duties and responsibilities assigned by the organization. Employee commitment is, therefore, a link between the employees and the jobs assigned by the organization.
Continuance Commitment	The feelings that arise from the calculation of people based on the investment that they have given to the organization and the return that they have received from it. In such cases, people will express themselves in the form of continuous working behavior, whether they will continue to work with that organization or change to work with other organizations
Affective Commitment	Feelings of the person, which are of attachments and feelings that they are part of an organization. As such, these individuals are willing to dedicate themselves to working for the organization.

Terms	Definitions
Normative Commitment	Feelings arising from social values or norms. These feelings arise in return for what a person has received from the organization through his or her expression of loyalty to the organization.
Strategic Human Resource Development	Guidelines or methods for members of the organization to learn or take action in the learning process, including acquiring knowledge and sharing it as well as applying the existing knowledge to connect with the organization's vision, mission, and strategy to remain or change. This development focuses on two contexts. The first is the developmental context, which focuses on the development of knowledge, skills, and the emotional intelligence of executives, managers, and staff to have the capability that the organization needs. The second is the organizational context, which focuses on creating an environment to support development, such as receiving support from executives, policies, work plans for effective human resource development, etc.
Career Development Needs	The needs or wishes of employees for self-development in their job duties based on the desire to succeed in their career, the need for commanding power in jobs, and the need to be recognized and have good relationships among members within the organization in order to support the achievement of the objectives and goals of those that want to succeed in their careers
Need for Achievement	The desire for success is the need to develop work to be more effective and to have higher standards of life. People that highly want success will have behavioral characteristics that clearly reflect their high work goals and challenging work, in order to focus on their work rather than rewards or monetary rewards. They want to get feedback on their progress and success at all levels and are more responsible for their personal work than engaging with others.

Terms	Definitions
Need for Power	<p>The need for power is the need to have control, or to influence or have responsibility over the activities of others. People that have this kind of need have such behavioral characteristics as seeking opportunities to control or influence other people, being competitive in situations that allow them to control others, and enjoying encounters or arguments with others. There are two types of needs for power, namely individual power and institutional power. Individual power is sought for personal benefit rather than for the benefit of the organization, but institutional power is aimed at the common good through working with other people.</p>
Need for Affiliation	<p>Bonding needs are used to maintain close friendships and interpersonal relationships. These needs for attachment show an attempt to create and maintain lasting relationships and friendships. People with such needs want others to like them. They like social activities and gatherings as well as seek participation through groups or organizational activities.</p>
Thai State Enterprises	<p>Business entities owned by the Thai government or are corporations or juristic partnerships in which one or more government-owned government agencies, organizations or business entities have capital in the company. The combined capital must be more than half of the total shares of that company.</p>
State Enterprises Listed on the Stock Exchange of Thailand (Listed State Enterprise)	<p>Public limited companies registered on the Stock Exchange of Thailand in which the Thai government is a major shareholder through ministries, bureaus, departments, or organizations governed by the government through the Development of Supervision and Management of State Enterprises Act, B.E. 2562 (2019) and the Budgetary Procedures Act, B.E. 2561 (2018)</p>

1.8 Research Overview

This research consists of five chapters. The first chapter discusses the sources of the study. The researcher conducted the study by looking into problems and searching for areas of interest in journal articles, research papers, and academic papers related to strategic human resource development practices. These practices currently offer a variety of concepts presented as alternatives to executives and human resource professionals of organizations to apply in accordance with the objectives and goals of the organization's strategies. In this way, an effective design for strategic human resource development can be identified. In the next chapter, the researcher presents the concept of strategic human resource development that led to the study of its relationship with employee performance in the organization. This study also includes the roles of the mediating and moderating variables that will influence both factors.

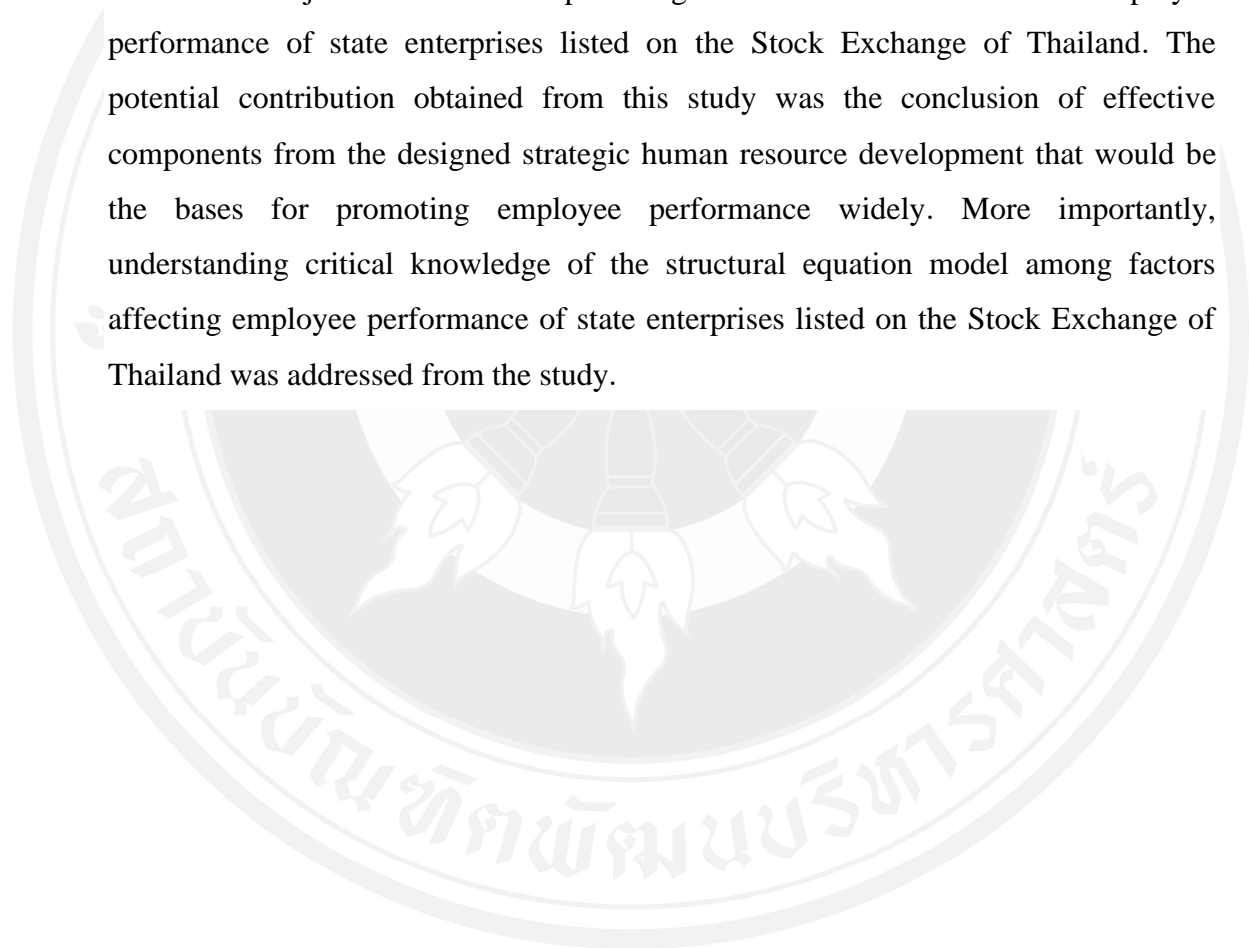
Therefore, the second chapter of this research reviews the literature related to employee performance in several organizational contexts and human resource management practices in order to support strategic developmental aspects. It also includes a study of the concepts of job satisfaction and employee commitment by studying the role of the mediator and theoretical concepts related to the career development needs of employees in the role of the moderator. This was done in order to explore the influences of strategic human resource development on the employee performance in state enterprises listed on the Stock Exchange of Thailand.

In the third chapter, the researcher specifies the research methodology for testing the hypotheses underpinning the study before drawing a conclusion as initially put forward. Therefore, this section consists of presenting the study methods, determining the population and samples, and providing guidelines for the development of the quantitative and qualitative research tools before collecting data for the results analysis. In addition, the statistical methods and analytical processes used to obtain accurate and representative studies of the population for credible research are shown in this section.

The fourth chapter is comprised of a presentation, analysis, and interpretation of the data and the factor analysis, as well as the influence of the mediating and moderating variables in tabular form. All of these might directly or indirectly affect

employee performance, which is an important objective of this study. Moreover, the qualitative information received from the key informants is presented to mutually explain the results of the structural model testing.

The final chapter of the study discussed the findings from the analytical process in order to summarize the directions and influences of the strategic human resource development design and how they affected the performance of the employees who were the sample in the study. Furthermore, this research also explained the role of job satisfaction and employee commitment as mediating variables including the explanation of the career development needs as a moderating variable to adjust the relationship among variables that affected the employee performance of state enterprises listed on the Stock Exchange of Thailand. The potential contribution obtained from this study was the conclusion of effective components from the designed strategic human resource development that would be the bases for promoting employee performance widely. More importantly, understanding critical knowledge of the structural equation model among factors affecting employee performance of state enterprises listed on the Stock Exchange of Thailand was addressed from the study.



CHAPTER 2

LITERATURE REVIEW

This research is a study of the causal relationships of the factors affecting employee performance in the state enterprises listed on the Stock Exchange of Thailand. It focuses on exploring the relationship between strategic human resource development design and employee performance in the target state enterprises. Moreover, the researcher studied job satisfaction and employee commitment variables in their mediating roles, which are related to finding the causal influence of SHRD on the performance of the employees. The career development needs of employees in the moderating role were also used to test the influence of such causal relationships in this study.

Therefore, this chapter reviews the literature related to the concepts, theories, the results of the research, and academic material underpinning the observed variables in order to create a conceptual framework to investigate their relationships with the empirical data.

For better understanding, the researcher divided the content of the literature review into the following:

- 1) Definition and components of employee performance (Section 2.1.1 and 2.1.2)
- 2) Definition and components of job satisfaction (Section 2.2.1 and 2.2.2)
- 3) The relationship between job satisfaction and employee performance (Section 2.2.3)
- 4) Definition and components of employee commitment (Section 2.3.1 and 2.3.2)
- 5) The relationship between employee commitment and employee performance (Section 2.3.3)

6) Concept, purposes, and design of strategic human resource development (Section 2.4.1 and 2.4.3)

7) A guideline for the human resource development of Thai state enterprises (Section 2.4.4)

8) Relationship between strategic human resource development design and job satisfaction (Section 2.4.5)

9) Relationship between strategic human resource development design and employee commitment (Section 2.4.6)

10) Relationship between strategic human resource development design and employee performance (Section 2.4.7)

11) The mediating role of job satisfaction in the relationship between strategic human resource development and employee performance (Section 2.4.8)

12) The mediating role of employee commitment in the relationship between strategic human resource development and employee performance (Section 2.4.9)

13) Concepts, theories, and components of needs and career development (Section 2.5.1 to 2.5.3)

14) Career development needs as a moderating variable of the relationship between strategic human resource development design and employee performance (Section 2.5.4)

15) Career development needs as a moderating variable of the relationship between job satisfaction and employee performance (Section 2.5.5)

16) Career development needs as a moderating variable of the relationship between employee commitment and employee performance (Section 2.5.6)

17) Conceptual framework of the study (Section 2.6)

2.1 Employee Performance

2.1.1 Definition of Employee Performance

Employee performance has been of interest, especially during the late 20th century. Many scholars and theorists have been trying to define “performance”, giving different meanings according to their study findings. However, the definition of employee performance shares a core concept—that performance is determined by the results that employees deliver to the organization. Among a number of diverse researchers having given definitions, Campbell (1990) defined “performance” as behavior or action related to the goals of the organization. This concept is in the same direction as that of Kenney et al. (1992), which stated that employee performance can be measured by the operational criteria established by the organization. Furthermore, Bernardin and Russell (1998) added that this performance is the result of a job or activity that has been scheduled for a specified period of time. This is in line with the work of J. Herbert and Lee (2000), where it was stated that employee performance is the result or engagement of employees to achieve their goals.

After 2000, Williams (2002) stated that performance can be considered a product of work. He stated that there are many terms that can be used to reflect performance, such as results, targets and goals, etc. As for research in the following year, Ellinger, Ellinger, and Keller (2003) concluded that performance is the sum of results obtained from the implementation of the expertise and skills of employees. The efficiency of employees was considered from the results of employees accumulated from their skills, efforts, and ability to jointly increase productivity in order to achieve the organization's goals.

The diversity of these definitions shows that the concept of performance is viewed as having an impact on work. However, Williams (2002) stated that there are still differences in the definitions and degrees of depth of each definition used to describe the meaning of “performance.” He also commented that job performance can be viewed in terms of employee behavior. However, not all work behavior can be considered performance based; only behavior related to job goals should be considered performance (Williams, 2002). This concept is consistent with Michael

Armstrong's point of view, stating that performance can also be considered in terms of behavior (Armstrong, 2014).

2.1.2 Components of Employee Performance

The concept of performance began to be widely accepted as having a multidimensional construct involved in employee performance in the organization. Especially in the last decade of the late 20th century, many researchers tried to study and find conclusions in this matter, with examples of important researchers during this period, such as Borman and Motowidlo (1993); Bates and Holton (1995); Holton III (1996); Campbell, McCloy, Oppler, and Sager (1993); Campbell et al. (1996), etc. As for performance components, Campbell et al. (1993) searched for these components and defined the contexts of behavior expressing the performance according to eight aspects. These eight aspects were not in the same format, as they had differences in the form of sub-factors and the content varied according to the work performed. However, Campbell et al. (1996) conducted further studies and stated that some work might be beyond the eight aspects, which included (1) specific ability, (2) the ability to work in addition to specific job duties, (3) the ability to write and to communicate verbally, (4) the attempt to show dedication to one's work, (5) self-discipline, (6) participation in working with teams and helping colleagues, (7) the ability to supervise the operations of subordinates closely, and (8) the ability to manage people and other resources in an organization for cost control and finding the necessary resources for organizational management.

Moreover, among the number of researchers looking at the diversity of the components of performance, Borman and Motowidlo (1993) divided performance into two parts. The first part was task performance, which consisted of various tasks that were the main activities of the organization, such as production, marketing, purchasing, etc. The other was contextual performance, which was a performance that was not a direct role but was context-related work, for example, the behavior of employees that showed kindness and sacrifice, which was expressed in the form of helping colleagues in the operation, etc. Furthermore, Borman and Motowidlo (1993) identified the researchers and organizations that rarely paid attention to studying samples in order to explore other performance contexts that could achieve more

efficiency for organizations. As a result, there was a tendency to find answers by focusing only on task performance. The second form was context performance, which was related to the organization's service activities, the distribution of products, important event planning, the coordination and supervision of various related tasks, or even helping with the work of colleagues in order to work efficiently and effectively. When activities related to these tasks were carried out through effective work behavior, they could lead to expectations regarding employee performance that would support organizational goals.

A few years later, the components were divided into two parts, task performance and contextual performance, and were more restricted as the organization felt the lack of the consideration of performance. This allowed Hesketh and Neal (1999) to propose a third component of performance based on adaptive performance. The newly added performance component provided a unique perspective on the ability of employees to change work under dynamic situations. Additionally, many researchers described the work behavior of employees that could be adjusted according to the situation (London, 1983; Murphy & Jackson, 1999; Pulakos et al., 2000). One mentioned in this regard, that employees could show their organization adaptive performance by changing their behavior according to the needs of the work that changed according to the situation that affected operations. From the 21st century onwards, many researchers have tried to frame the concepts or classify the performance components for measuring employee performance. The present researcher has summarized the components according to the concepts of researchers and scholars according to different periods for a clearer understanding as follows:

Table 2.1 Summary of Employee Performance Components

Scholars	Employee performance components
Borman and Brush (1993)	Task performance and contextual performance
Campbell, McCloy, Oppler, and Sager (1995)	Behaviors specifically related to job and non-job tasks, communication behaviors for both writing and speaking, demonstrating effort, maintaining personal discipline, facilitating peer and team

Scholars	Employee performance components
	performance, supervision or leadership position, and management
Hesketh and Neal (1999)	Task performance, contextual performance, and adaptive performance
Pulakos et al. (2000)	Adaptive performance model
Kennedy, Laskk, and Burns (2001)	Work role empowerment, behaviors toward customers, and teamwork
Borman, Penner, Allen, and Motowidlo (2001)	Conscientious initiative and personal and organizational support
McCook (2002)	Perceived effort, satisfaction with co-workers, and opportunity to receive rewards
Johnson (2003)	Job performance and contextual performance
Parker, Williams, and Turner (2006).	Proactive behavior at work, proactive problem solving, and proactive idea implementation
Armstrong (2006)	Employee's productivity at the individual level meets the firm's performance standard
Griffin, Neal, and Parker (2007)	Employee's proficiency, additivity, and proactivity of tasks contributed at the individual, team, and organization levels
Schepers (2008)	Work performance and discipline effort
C. V. Audrey and Patrice (2012)	Creativity and creativity in facing difficulties, interpersonal adaptableness, training efforts, and managing stress at work
Koopmans, Bernaards, Hildebrandt, de Vet, and van der Beek (2014)	Task performance, contextual performance, and counterproductive work behavior

Table 2.1 shows the concepts of employee performance suggested by scholars from the 21st century that were based on the extension of two key components: task performance and contextual performance (Borman & Motowidlo, 1993). The efforts

in finding the more comprehensive components of performance were mainly related to the search for behavior that affected the employees' performance in the organization. Hesketh and Neal (1999) originally suggested separating adaptive performance from the existing two components. However, Pulakos et al. (2000) was the one who clarified the concept of adaptive performance.

In creating the conceptual framework for measuring employee performance in the state enterprises listed on the Stock Exchange of Thailand in response to the objectives of the study, the researcher encapsulated the important criteria in measuring employee performance from three components, which were task performance, contextual performance and adaptive performance (Pulakos et al., 2000). These components are considered suitable for measurement of employee performance. The observed variables of each component will be identified to test with causal factors involved in this research. The components of employee performance are showed in Figure 2.1.

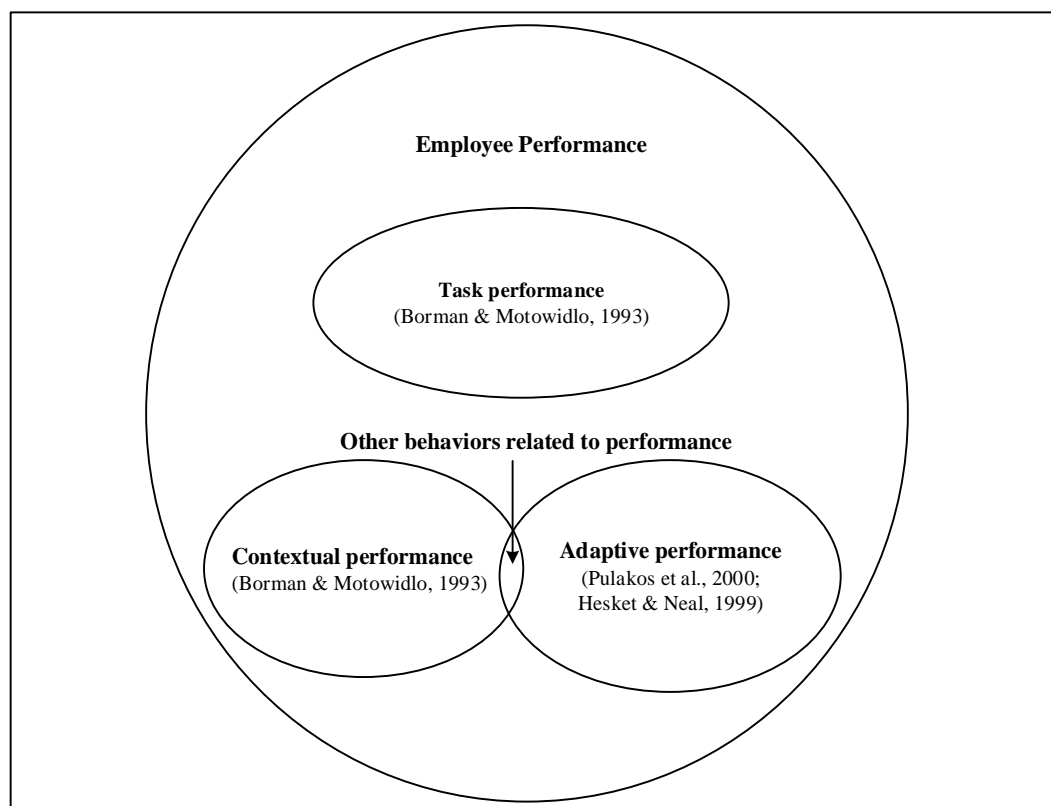


Figure 2.1 Components of Employee Performance

However, under the behavioral controversy, Motowidlo (2003) viewed that performance related to behavior is action that the organization expects to receive from employees under various work situations. Those considered highly effective in their work often receive employment priorities from the organization when compared with less efficient employees. Therefore, it can be said that one of the success factors of every organization is the work efficiency of employees. However, although behavior in the operation of the organization is only a feature that is relevant and affects performance, it is considered related because behavior is what the employees show in the operation of the organization. Examples of studies related to this matter include the study of the factors that affect the performance of state enterprise employees in the Thai telecommunications industry, which is the value that the organization expects to receive from the behavior of each employee. This study searched for the causal variables that have an influence on performance, and the result of this study suggests that employees that are achievement-motivated by different training programs will receive different performance results. This study shows that the characteristics of job duties that motivate people to work include responsibility, ambition, sharing, and having knowledge about work and work planning (Chunin, 2018). In addition to the above, de Waal (2010) previously investigated performance-driven behavior as a means of improving organizational performance in a variety of businesses in the Netherlands and the United Kingdom. The findings of the study were the first to show how important it is to combine instrumental and behavioral dimensions in order to build a successful performance-driven organization that achieves positive results over time. These findings are unequivocal and powerful, and they can be applied to all dimensions evaluated.

The concepts of the researchers and scholars discussed above can lead to the conclusion that performance is the result or output that employees, as members of the organization, delivers to the organization through their assignments. Moreover, work performance also includes the behaviors related to the work context that can contribute to greater work efficiency, such as participation in related work, etc. Work performance also includes the characteristics of those that can adjust themselves to match the operational conditions or situations in the work, which is constantly changing, in order to achieve the goals of the work roles assigned by the organization.

As a result of this study, the employee performance in the state enterprises listed on the Stock Exchange of Thailand refers to the results that those employees have delivered to the organization in accordance with their assigned jobs, and this performance becomes as effective as or better than what the organization expected.

2.2 Job Satisfaction

2.2.1 Definition of Job Satisfaction

Job satisfaction is another factor considered to be linked to employee performance. Many researchers and scholars have attempted to define job satisfaction so that academic understanding can be in the same direction. Until now, however, there has not been a universal conclusion when referring to job satisfaction because it is associated with feelings in many contexts that occur with employees in the organization. In terms of academic definitions, Muchinsky (1993) explained that job satisfaction is the emotional response of personnel that express what they like and have not received from their work. This is in line with the work of Bavendam (2000), who explained that job satisfaction is the feeling toward work and its conditions at that time. The job satisfaction of employees is considered one of the important factors that can be linked to the happiness of the employees while working for the organization. If the employees are satisfied with the organization, chances are that those employees will be more dedicated to their working. Job satisfaction is, therefore, a key supporting factor that leads to being accepted by others, receiving compensation, getting promotions, and achieving success that can respond to the needs of employees from their work (Kaliski, 2007). Furthermore, Rounds and Armstrong (2005) commented that job satisfaction is comprises of an employee's attitudes and feelings toward their work. A positive attitude toward work and what employees want to receive from their work will become job satisfaction in the end. However, when discussing job satisfaction, it conveys the feelings of the like or dislike of the employees regarding the job assigned by the organization.

Therefore, job satisfaction is when employees were are with their work, are responsible for it and perform well, and this can result in compensation from their work endeavors. However, if their attitude toward their work is negative and they do

not receive what they have expected from their job, it can lead to job dissatisfaction. In order to identify job satisfaction, Spector (1997) suggested three aspects to consider. First, the organization should assess employees fairly according to their values, as effective assessment of job satisfaction will lead to work efficiency. Second, employee behaviors rely on the degree of job satisfaction that will affect their actions in an organization. Finally, job satisfaction can serve as an indicator of the organization identifying the level of satisfaction of each function leading to the boosting of employee performance in unsatisfactory areas. To sum up, it is clear that job satisfaction is the feeling of employees that want to achieve success in their work efficiency.

2.2.2 Components of Job Satisfaction

As mentioned, job satisfaction has not been universally defined. Therefore, determining the appropriate and standardized measurement components of job satisfaction cannot be considered conclusive as a standard in the same operation. When discussing the factors that are involved in measuring job satisfaction, many times job satisfaction assessors tend to use human resource management elements as inevitable elements in assessing it. For example, providing compensation and benefits, learning and development, as well as job progress, etc. have been used as factors in determining satisfaction. Therefore, the components or factors that are appropriate to be used to create a tool for measuring job satisfaction are still in the context defined by each organization. They are based on the view or dimension that the organization desires to receive feedback from the staff in the organization and from the effort to propose diverse variables. Rue and Byars (2003) have proposed the factors that contribute to job satisfaction measurements, including the supervisor's concerns for the employees, job designs relevant to the scope of work, job specificity, interest in one's work and its value, compensation for performance, the operating environment, social relations, and the long-term opportunities given by the organization to its employees. This also includes other opportunities as well as the aspirations and need for achievement. There is also a well-known job satisfaction measurement tool developed and known as the Minnesota Satisfaction Questionnaire (MSQ), which was designed to measure employees' satisfaction toward their jobs.

There are three measurement forms: the Long-Form MSQ, which has two forms, namely the 1977 version and the 1967 version, and the Short-Form MSQ, which measures more specific information about the job aspects of each employee using the Long-Form MSQ. This form consists of 20 gauges: ability utilization, achievement, activity, career advancement, authority, company policies, compensation, co-workers, creativity, independence, moral values, recognition, responsibility, security, social status, social service, supervision for human relations, technical supervision, variety and working conditions. The Short-Form MSQ consists of 20 items from the best Long-Form MSQ used as a representative for all 20 gauges. Analyzing the 20 factors results in two factors: intrinsic satisfaction and extrinsic satisfaction. These two factors are combined with the general satisfaction scores obtained from the Short-Form MSQ using the same guidelines used in the Long-Form MSQ in 1977. The dimensions of the measurement are determined by five key elements: the nature of work, compensation and benefits, attitudes toward supervisors, relation with co-workers, and opportunities for promotion (Aziri, 2011).

In determining the appropriateness of the various variables used in measuring job satisfaction, the researcher had to consider the context of the organization and the external environment, such as region, culture, etc. In this research, the researcher could see that the state enterprises listed on the Stock Exchange of Thailand, the population in the study, was a large organization with a universal management practice consistent with the various measures according to the Minnesota Satisfaction Questionnaire. Thus, in order to fit the timeframe and research method for studying employees' job satisfaction in the state enterprises listed on the Stock Exchange of Thailand, the researcher applied the Minnesota Satisfaction Questionnaire in the Short-Form MSQ format for evaluating the job satisfaction of the employees. The aforementioned indicator was adapted for data collection through a questionnaire, which was a quantitative research tool that suited the organization's context. The researcher divided the factors in measuring the satisfaction of the employees into five important components: nature of work, compensation and benefits, attitudes toward supervisors, relation with co-workers, and opportunities for promotion. These five components were used to create the model for testing the causal relationship with the relevant factors according to the objectives of the study.

In summary, employees' job satisfaction in the state enterprises listed on the Stock Exchange of Thailand, according to this research, means employees' feelings or attitudes toward their jobs assigned by the organization. Such satisfaction is, therefore, an expression of the feelings of likes or dislikes of the employees toward the job characteristics, rewards and benefits, attitudes toward their supervisors, relations with their co-workers and opportunities for promotion. A positive attitude toward one's work and what the employee wants to receive from his or her work will lead to satisfaction in the end.

2.2.3 Relationship Between Job Satisfaction and Employee Performance

Job satisfaction and employee performance are two latent variables that researchers and many organizations employ in order to try to find answers regarding the relationship between these two variables. In particular, such organizations aim to seek the opinions of the employees through activities or what the organizations have carried out. Thus, it can be seen that this kind of action can result in employee satisfaction reflected back to the organization as a dependent factor from what the organization had done, which can be considered a causal factor.

The design of the data collection tools in this research focused on being a factor that would affect employee performance in either positive or negative directions. Consequently, job satisfaction in this research framework is an exogenous variable that can positively affect employee performance and mediate the relationship between strategic human resource development design and employee performance. Therefore, the researcher reviewed the literature, which identified the connection between job satisfaction and employee performance, and attempted to find an answer as to why people believe that job satisfaction is related to performance.

In studying the interrelationships between these two factors, after 2000, most studies have shifted their focus on job assignments in terms of results and behavior because studies of this nature are easier to find and can provide more observations than studies of individual characteristics. A study by Judge, Thoresen, Bono, and Patton (2001) argued that there are seven models that can be used to describe performance and its relationships with satisfaction. This identification means that some of these models can be used to determine the relationship between job

satisfaction and work efficiency. As a result, it can be said that employees' satisfaction can either improve their work performance or vice versa. In the same year, Schermerhorn Jr, Hunt, and Osborn (2001) stated in their work that job satisfaction is the level at which each employee feels positive or negative about the job. This shows that job satisfaction is a general attitude that people have toward their job. This academic paper also addressed job-related factors, such as wages and job responsibilities, opportunities for promotion, support from supervisors, and relationships with colleagues that might affect employee satisfaction or dissatisfaction. The factors in each task have a positive correlation. However, Hersen (2004) stated in his paper under the topic of psychological assessment that there is only a weak positive relationship between job satisfaction and work performance. However, he stated that employees that were satisfied or happy will be able to work more efficiently. A few years later, Sarmiento and Beale (2007) concluded from a study that performance is a consequence of two components, the ability and skills of employees to better engage in their work. In the same year, Kaliski (2007) tested job satisfaction that could be perceived as a sense of accomplishment and asserted that there was a direct relationship with the work of the staff. As for George and Jones (2008), they tried to further their study on this issue and found that job satisfaction consisted of the beliefs and feelings that everyone held about work. In the same year, Ramlall (2008) put forth the purpose of work and its relationship with satisfaction, commitment, and performance. The implications for organizations were numerous and critical. It was found that higher levels of satisfaction at work and outside of work, as well as commitment to the job and, eventually, performance, resulted from a relationship between one's specified work purpose and one's broader purpose of life. This shows that, regardless of the kind of profession one has, there is a high degree of fit between one's work and one's overall purpose in life, as supported by the findings of this study. Similarly, the study of Vein et al. (2015) examined the link between job satisfaction and the efficiency of salespeople, as well as organizational sales adjustments; the results showed that there is a significant relationship between the efficiency of salespeople and job satisfaction. However, in the study of the relationship between job satisfaction and performance, there is still controversy

surrounding the role of the job satisfaction variable as an independent variable that influences performance or as a dependent variable that is affected by performance.

Likewise, a study of Raza et al. (2015) examined the connection between job satisfaction and the performance of salespeople, as well as organizational sales adjustments. It showed that there is a strong relationship between the performance of salespeople and job satisfaction. On top of that, a study by Vermeeren, Kuipers, and Steijn (2014), aimed to observe cooperation related to the effectiveness of public organizations and labor management. The study focused on job satisfaction as an intermediary between the organization's performance and human resource management in relation to the effects of supervisors' management. This study concluded that satisfaction is positively correlated with employee performance.

Furthermore, Shmailan and Abdulwahab (2016) established a direct correlation between the employee's engagement and satisfaction in key findings, which showed better productivity and career development in satisfied employees. In a study published in the same year, Inuwa (2016) also depicted a positive correlation between job satisfaction and the performance of employees, while describing job dissatisfaction as one of the major factors in the demotivation and demoralization of employees, leading to lower productivity and performance of the organization.

In addition, job satisfaction is diverse and complex and it can be seen in many ways through different samples and is often associated with motivation (Aziri, 2011). Hamed et al. (2017) conducted the study of employee satisfaction in the Oriental Ready Mix Company Sultanate of Oman. One of the results pointed out that the appreciation of employees was related to the building of employee satisfaction. The results of this study can be linked to the appreciation of hard-working employees and good job performance in supporting the company in order to obtain get good results from their work. This study therefore suggests that job satisfaction plays an important role in the efficiency and effectiveness of employees.

Interestingly, in the past years many studies have tried to find a link between job satisfaction and employee performance in many organizations by using different concepts or different factors. An example of this is a study of Bergh (2009), that attempted to explain job satisfaction by separating job satisfaction directly under the responsibility of the employees and job satisfaction that was not their direct

responsibility. It was found that there was only a small relationship between job satisfaction and job performance; this study did not summarize the direction of the relationship of these factors. According to a study by Rose, Kumar, and Pak (2011) regarding the impact of organizational learning on organizational commitment, job satisfaction, and performance, one of their objectives was to observe a connection between job satisfaction and performance through a sample of public service supervisors in Malaysia. The result of this study made us aware that organizational learning can have the same positive impact as organizational commitment, job satisfaction, and performance. Similarly, Yahaya, Yahaya, Ma'alip, Ramli, and Kamal (2012) did a psychological study on career pressure, organizational commitment, job satisfaction, and employee behavior as members of the organization and it was discovered that the performance of employees depended on job satisfaction. Therefore, the relationship between job satisfaction and employee performance is an issue that organizations have to consider and that can lead to strategic human resource development. In general, these two variables show the direction of a logical relationship between each other. Successful organizations are those that use periodic satisfaction tests and job performance tests to monitor the levels of these important variables and to determine the level of values that need to be improved. An interesting example is a study by Shaikh, Zuberi, and Venkatesh (2012), which attempted to put forth the view that if job satisfaction is due to extrinsic satisfaction, it should lead to good work. However, when satisfaction was achieved through an inner feeling, this satisfaction would result from performance instead. Other studies, such as those of Triwahyuni and Ekowati (2017) and L. Suprayitno and Qomariah (2021) on the effect of job satisfaction on employee performance, both displayed a crucial and positive correlation between employees' satisfaction and the performance of the employee through organizational commitment.

The many years of research discussed above demonstrate that when employees in the organization are asked to evaluate various aspects of their job, such as supervision, compensation, opportunities for promotion, and cooperation with their colleagues, the characteristics associated with the job become an element that most organizations focus on in obtaining replies from employees (Harter, Schmidt, &

Hayes, 2002; Heskett, Sasser, & Schlesinger, 1997; Keyes, 2002; Koys, 2001; Schlesinger, 1997).

According to the above empirical studies, a lot of research supports the notion of the influence of job satisfaction on employee performance. Therefore, the researcher tested the job satisfaction construct to find a relationship with the employee performance construct in order to find the direction of influence. As a result, one of the research hypotheses was set as follows:

Hypothesis 1:

Job satisfaction has a significant and positive effect on employee performance in the state enterprises listed on the Stock Exchange of Thailand.

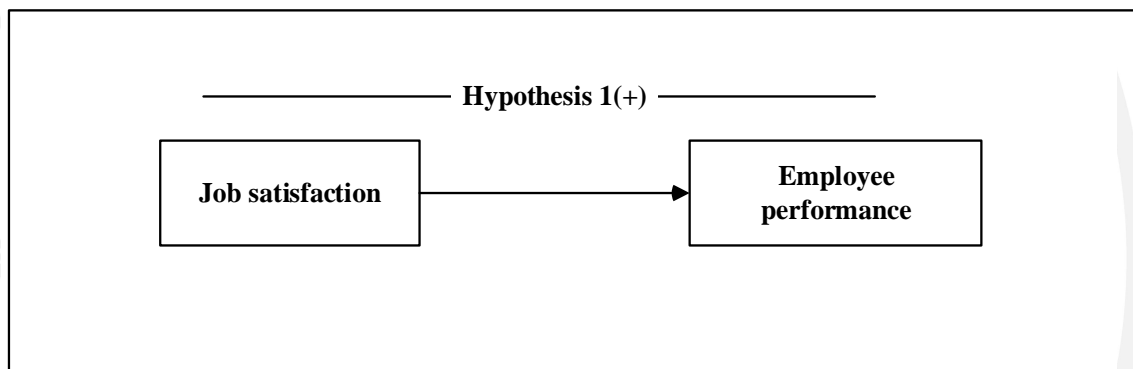


Figure 2.2 Hypothesis of the Relationship Between Job Satisfaction and Employee Performance

2.3 Employee Commitment

2.3.1 Definition of Employee Commitment

Commitment is one of the factors that researchers and scholars continuously pay attention to in the study of the impact on the performance of employees and the organization through a great deal of research (e.g. (R. A. Baron & Greenberg, 1990; T. T. Herbert, 1976; Keyes, 2002; Mowday, Porter, & Steers, 1982; T. Northcraft & Neale, 1996; Steers & Porter, 1983), all of whom defined the term in the same direction in a number of these studies. T. T. Herbert (1976) stated that organizational engagement coordinates employee behavior with organizational goals that define

activities and behaviors. Employees tend to accept those goals as incentives even though they might have to sacrifice some of their personal interests. In defining the meaning of commitment, it can be seen to be another difficult factor, as proposed by Meyer (1997); J. P. Meyer and N. J. Allen (1991) and Meyer and Herscovitch (2001) attempted to compile and analyze both similar and distinct traits to describe the essential characteristics of commitment. They stated that commitment is the driving force that makes a person act in connection with a set goal. In addition, Sheldon (1971) defined commitment as a worker's attitude or feelings toward an organization, which can be a positive assessment of the organization. It would be a link between that person and the organization. Later, (Mowday et al., 1982; G. B. Northcraft & Neale, 1990) referred to commitment as a deep, strong relationship between employees and the organization, rather than typical loyalty. It is because commitment is considered a strong relationship and makes employees willing to devote themselves to creating better-performing organizations. Under the perspective of R. A. Baron and Greenberg (1990) and Steers (1997), they agreed that commitment refers to a person's desire to be a part of the organization forever. It is the employees' sense of self-unity with the organization, the value that they are in harmony with the other members of the organization, and the willingness to devote their energy and encouragement to the mission of the organization. Moreover, Schalk and Freese (1997) defined organizational commitment as the willingness of the employees to work for the organization so that their performance is at the standard level of the contractual agreed upon with the organization.

Additionally, some researchers have attempted to conceptualize commitment in such a way that it could be characterized according to multiple issues. In this number of researchers, Steers and Porter (1983) defined organizational commitment as a three-character trait of individual relationships: (1) strong beliefs and acceptance of goals and values; (2) willingness to put forth one's best efforts for the organization; and (3) great hopes of continuing to be a member of the organization. Subsequently, Steers (1997) stated that organizational commitment could be better used to predict the turnover rate of employees in an organization than job satisfaction. That is to say, one, that commitment to the organization is a concept that covers more than job satisfaction. It can reflect how the individual responds generally to the organization as

a whole. Job satisfaction, however, reflects a person's response to the job or only one aspect of the work. Two, commitment to the organization is more considerable than satisfaction despite its firm but slow development, and three, commitment to the organization is a measure of the effectiveness of the organization.

When it comes to academic work that conveys a coherent idea of employee commitment to organizational performance, the Society for Human Resource Management addressed this issue in the 2007 Change Management Survey Report, where it was indicated that organizational commitment is a strategy to improve organizational efficiency and effectiveness (Benedict, 2007). Similarly, Fazzi (1994) indicated that organizational commitment is influenced modern administration, reasoning that organizational commitment can lead to effective administration. It is the duty of management to build employee commitment and loyalty in order to minimize the loss of valuable employees.

2.3.2 Components of Employee Commitment

When considering the components of employee commitment to the organization, some researchers and scholars have examined the commitment to developing measurable variables of the construct for research since the 1960s. However, the search for an effective component of commitment remains, taking into consideration whether components should be applied in describing the phenomenon of employee commitment in multiple contexts of organizations. In the early stage, Kanter (1968) stated that each member of the organization had different behaviors that showed an individual's commitment. These differences made people in the organization committed to the organization for different reasons, which can be divided into three types. First is continuance commitment. This is related to the knowledge and understanding of the person, taking into account costs and profits. For example, when thinking that the cost of leaving the organization is higher than that of staying with the organization, it causes that person to remain in the organization in order to make a profit. The person thus would remain in the organization. Therefore, it can be said that it is the systematic binding of social roles. Second is cohesion commitment. This is associated with positive feelings regarding the organization. Good emotions and feelings bind members to the organization and satisfaction will

thus arise. If group members are highly related, there would be no resistance or envying of each other and this joint system could continue to exist—members would adhere to each other. Third is control commitment. This is an obligation where people adhere to the standards and respect the authority of the group. They agree with the morality, ethics, justifications, and expression of the values of the people and the group. Thus, obedience to these needs is a necessary part of social standards, and “punishment” in the system has to be appropriate. Subsequently, Mowday et al. (1982) proposed the concept of attitude as a person's feeling of being part of an organization or the need to work in the organization. In this context, people express their commitment to the organization according to different attitudes: strong commitment and acceptance of the goals and the values of the organization. They are willing to put in their best efforts to work for the organization and have a strong desire to maintain their membership of the organization. Subsequently, J. P Meyer and N. J Allen (1991) proposed the three-component model of commitment, created to support the notion that commitment has three different components that correspond to different psychological states. They created this model for two reasons: (1) to “aid in the interpretation of existing research” and (2) “to serve as a framework for future research.” Their study was based mainly on previous studies of organizational commitment.

In a subsequent study after 2000, the Gallup Organization categorized three levels of organizational engagement through SHRM research on leveraging employee engagement for competitive advantage in 2009. One, engaged employees were those that were committed and felt deeply bound to the organization. This would result in taking into account the progress of the organization. Two were non-engaged employees that did not adhere to organizational ties or those that were inattentive, worked perfunctorily, or were not dedicated to their work. The group was actively disengaged employees that were unhappy at work. Herscovitch and Meyer (2002) applied the concept of the three-component model of commitment—*affective, continuance, and normative commitment*—by affixing it to the theoretical foundations of a more commonly recognized model of commitment.

The basis behind many of these studies was to find ways to improve how employees feel about their work duties so that these employees would become more committed to their organizations.

Table 2.2 Summary of the Commitment Components

Scholars	Components of commitment
Buchanan (1974)	(1) Identification (2) Involvement (3) Loyalty
Steers (1977)	(1) Confidence and acceptance of the goals and values of the organization (2) Willingness to put forth effort for the good of the organization (3) The need to remain a member of the organization
Mowday et al. (1982).	(1) Personal characteristics (2) Structural characteristics (3) Job-related characteristics (4) Work experiences
J. P. Meyer and N. J. Allen (1991); Meyer and Allen (1997)	(1) Continuance commitment (2) Affective commitment (3) Normative commitment

Under the commitment components of the above concepts of the relevant scholars and theorists, when taken into account the consistency with employee commitment in order to study the relevance to the performance of the state enterprises listed on the Stock Exchange of Thailand this time, the conceptual components of the model of J. P. Meyer and N. J. Allen (1991); Meyer and Allen (1997) exhibited relatively obvious dimensions. This was a commonly used component for measuring commitment to the organization. Given the model's reference, the researcher considered that it was appropriate to design an observed variable used to measure employee commitment that could affect employee performance in the study.

Therefore, the researcher selected the three-commitment component based on J. P. Meyer and N. J. Allen (1991); Meyer and Allen (1997). This component was one of the forms of organizational commitment that have been studied the most to accurately predict the psychological state of people in constructing observed variables for investigating employee commitment (Noraazian & Khalip, 2016).

1) Continuance commitment refers to the feelings arising from employees' calculation based on the efforts that they make in the organization. It also refers to the returns that those employees receive from the organization where they would continue to show behavior in their work, whether they would continue to work with that organization or change their workplace.

2) Affective commitment refers to the feelings that arise from within employees. This is a feeling of commitment to and unity with the organization. They feel that they are part of the organization and are willing to be dedicated and devoted to it.

3) Normative commitment refers to the feelings that arise from the values or norms of society. This is a feeling that arises in return for what they have received from the organization and is expressed in the form of personal loyalty to the organization.

In summary, employee commitment in this study refers to the positive attitudes or feelings of employees in the state enterprises listed on the Stock Exchange of Thailand regarding the duties and responsibilities assigned by the organization. Employee commitment is therefore a link between employees and their duties assigned by the organization.

2.3.3 Relationship Between Employee Commitment and Employee Performance

In the study of the factors related to employee commitment or organizational commitment in the early stage of shaping this idea, Arnold and Davey (1999) conducted a study to help retail organizations understand the rationale for employee performance through job commitment, together with other key factors, such as motivation and job satisfaction. These variables were determined by the employees with educational and work experience backgrounds. The conclusion drawn from this

study was that there was a significant positive relationship among motivation, job satisfaction, and job commitment. The study sample suggested that employees' roles changed depending on their job opportunities. It is true that if employees have fewer responsibilities than other parties, they need to be "controlled" in order to maintain their ability in their work. Moreover, organization policy plays an important role in delivering job commitment and it appears that the organization might benefit from increased commitment at every stage, which significantly reduces absenteeism and non-compliance.

After 2000, research studies looking at similar relationships with career commitment had been defined and measured in a number of ways. This might complement the treatment and stimulation of employee behavior or represent the bond that people in the organization had. M. L. Jones, Zanko, and Kriflik (2006) stated that over the years career commitment had been defined and measured in several areas, including, the fact that one, job commitment could be a balanced force that serves to maintain and encourage employee behavior; that two, polite power commitment requires the person to honor commitment; and that three work commitment could identify the individual strengths and physiological commitments that people in the organization feel. Many years later, one study aimed to investigate the correlation between employee commitment and performance within the public and private sectors in Pakistan, (Dost & Tariq, 2012). This study revealed a moderate effect of employee's commitment on performance within the organization.

Subsequently, Rehman, Saif, Khan, Nawaz, and Rehman (2013) studied (again in Pakistan) the influence of the factors affecting organizational commitment and the results indicated that compensation and work had a significant influence on the organizational commitment to general education while career development had no impact on the commitment of the organizations. Compensation affected higher commitment, which outweighed the nature of the work for which the employees were responsible. This study analyzed various theories, focusing on the conceptualization model of Meyer and Allen (1997). Most organizational careers were planned with strategic procedures under the control of the organization, and most behavioral characteristics were presented in a manner aimed at improving current jobs and relocation intent (Kossek, Roberts, Fisher, & Demarr, 1998). In addition, there were

studies that indicated that commitment related to employee performance through measuring employee work behavior was positively correlated with career commitment.

Given the study results regarding the relationship between organizational commitment and employee performance of T. R. Suprayitno and Zakiya (2021), which was previously mentioned in terms of job satisfaction, it highlighted that there was a positive effect between these two factors. However, the study could not prove that organizational commitment mediated job satisfaction regarding employee performance.

According to the studies above, it appears that the search for a relationship between employee commitment and employee performance over the past decades frequently required job satisfaction involvement in order to explain the effect on employee performance and organizational performance. Therefore, employee commitment is what helps support organizational goals by emphasizing the conceptual framework-building model of J. P. Meyer and N. J. Allen (1991); Meyer and Allen (1997) according to three components: (1) continuance commitment from employees working with the organization; (2) affective commitment, where employees feel that they are part of the organization and are dedicated to their work; and (3) normative commitment from general social norms that are instilled in the individual in terms of responsibility for his or her work and for the organization. Regarding the development of employee commitment, organizations have to plan and strategic procedures have to be in place in order to create a feeling of attachment on the part of employees. In order to investigate the relationship between employee commitment construct and employee performance construct, a second research hypothesis was set as follows:

Hypothesis 2:

Employee commitment has a significant and positive effect on employee performance in the state enterprises listed on the Stock Exchange of Thailand.

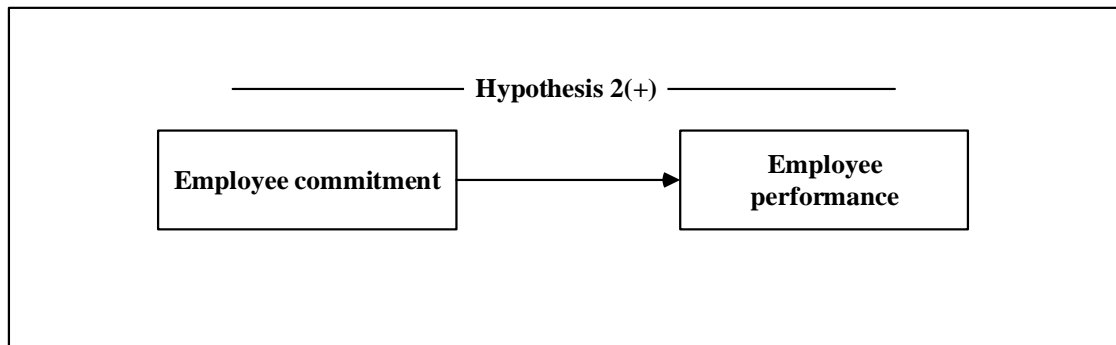


Figure 2.3 Hypothesis of the Relationship Between Employee Commitment and Employee Performance

2.4 Strategic Human Resource Development

2.4.1 The Concept of Strategic Human Resource Development

The search for the concept of strategic human resource development began to become more prominent at the end of the 1990s. A wide variety of authors and theorists (Becker, Huselid, Huselid, & Ulrich, 2001; Ericson, 2006; Garavan, Costine, & Heraty, 1995; Harrison, 1997; Nadler & Wiggs, 1986) attempted to build on the concept of human resource development to be consistent with the operating conditions of organizations that needed to be adjusted to reflect changes in the economic conditions and societies of the world. The search for such ideas defined human resource development as a component of human resource management (Yorks, 2004). Under the concept of human resource management, human resource development involved training and development as a sub-specialty element and was subsequently elevated to the concept of learning and development (Walton, 1999). The concept of human resource development has become apparent in its elevation to strategic human resource development from the beginning of the 21st century to the present. The concept of strategic human resource development was further developed by Grieves (2003a), who saw it as development connected to the concept of organizational development as well. For this reason, the concept of strategic human resource development resulted in many different perspectives. Under this new concept, Harrison (1997) indicated that strategic human resource development was a matter that arose from the vision of the organization in terms of seeing the ability and

potential of personnel based on business strategy, which was the overall view of the organization. Further, Armstrong (2000) opined that it was a matter of developing learning organizations, and the organization provided educational opportunities for personnel to learn and develop at the individual, team, and organization levels. Previously, Garavan (1991) had been trying to study and conceptualize this subject since the late 19th century. He looked at strategic human resource development as a strategic management tool for developing training and managing or being involved in the education of personnel at a professional level so that such groups could achieve the objectives of the organization. It also ensured the efficient use of knowledge and skills of each person. Additionally, Armstrong (2000) also argued that the strategic human resource development concept was a vision of the long-term operation of the organization and how the strategic human resource development would play a role in fostering successful business strategies. This clearly showed that the organization's business strategy dictated strategic human resource development. The crucial role of this concept was to ensure that businesses in operation could achieve their goals (Armstrong, 2014).

2.4.2 Purposes of Strategic Human Resources Development

Strategic human resource development aims to create coherence and encompasses operational guidelines for human resource development. In most cases, the human resource development process focuses on creating an environment that encourages personnel in the organization to learn and develop. Human resource development activities might include traditional training programs used to guide the development of people in the organization. However, strategic human resource development focuses more on the development of intellectual capital in the organization. The focus in this type of development can be considered the creation of a knowledge base for the organization under systematic knowledge management. In addition, strategic human resource development can also be considered a means for planning for personnel to access development on their own, also known as self-administered learning, under the support and guidance of appropriate knowledge development from the organization. Even if strategic human resource development is in line with the business directions, its policy should also take into account the wishes

and needs of individual development. Another priority in human resource development policies is to take into consideration the ability to work from both outside and inside the organization as well (Armstrong, 2000).

2.4.3 Strategic Human Resource Development Design

With the concept of human resource development expanding considerably, it raised the question of how important effective strategic human resource development is. A number of researchers had tried to build on the idea of strategic human resource development with a basic conclusion that could explain that strategic human resource development is linked to organizational strategies. In addition, under various perspectives in the construction of the model, this new concept was designed under different foundations, where some scholars proposed a process concept while others separated components according to the activities or contexts of various administrative areas in the organization. Swanson and Holton (2009) for example identified human resource development as a process of developing expert knowledge for the purpose of developing individual and teamwork processes, which included the organization system. Human resource development was clearly focused on the development of skills, knowledge, and competence specific to the organization's objectives in order to ensure that employees were able to apply knowledge to their responsibilities (Mankin, 2009). However, there were also arguments concerning the direction in which strategic human resources should develop. Certainly, strategic human resource development still aims to achieve organizational objectives of performance resulting from the effective performance of employees. However, according to the literature review and academic work, the concept of strategic human resource development can be divided into two contexts as follows:

2.4.3.1 The Design of Strategic Human Resource Development

Focusing on the Developmental Context

Armstrong (2000) made efforts to define a strategic human resource development approach, focusing on the elements of organizational action and setting the following guidelines.

1) The Individual Learning Strategy

The learning strategy of individuals in organizations is driven by their duties and responsibilities in the organizations, which alters the behavior and enhances the knowledge of these individuals in order to achieve organizational goals. The starting point for individual development is to discover the development and learning opportunities of the individual. The strategy should cover: (1) identification of learning needs; (2) planning roles in self-administered individual development and learning; and (3) supporting learning in the guiding manner of the development, coaching, and mentoring people in the organization, and designing specific development courses in order to meet individual development needs with internal and external training. This includes courses designed to meet the needs of employees in different groups.

2) The development of organizational learning and the learning organization strategies

Organizational learning strategies are aimed at developing abilities based on the existing organization's resources. These development strategies follow the basic principles of human resource management. It can be said that it is a necessary part of development for the organization to invest in personnel in order to develop human capital in the organization and to increase knowledge and skills for the organization. Regarding organizational learning, Argyris (1992) pointed out that organizational learning can take place under two conditions. The organization learns from its successes as intended. The other way is that the organization learns from its failure to achieve the set goals and this leads to finding solutions. The development of a learning organization is based on the organizational learning process, which is the basis for this concept. Wick and Leon (1995) argued that the learning organization is a matter of continuous development from the creation and cultivation of the skills necessary for the success of the organization in the future. In addition, Garvin (1993) stated that the learning organization is a skill created by the organization and its transfer of knowledge as well as a more profound update of knowledge. Previously, Senge (1990) called the learning organization a continuous learning organization that builds the future of the organization.

3) Knowledge Management Strategy

Knowledge is the result of learning. Organizational learning can be developed and enhanced as the organization develops and implements a systematic knowledge management strategy. The knowledge management strategy encourages the sharing of knowledge by connecting individuals in the organization through documented information transfer in order to create learning from the experiences of the people in the organization in the information system. This could be in the form of presentations, reports, databases, libraries, policies, and manuals. Further, this knowledge can be transmitted through such activities as conferences, workshops, courses, posting videos, and documents through enterprise networks or the intranet, which are traditional knowledge communication channels still effective in transferring knowledge today. The main goal is to pass on knowledge to individuals, which could be done through interview methods in order to share knowledge within the organization.

4) The Development of Intellectual Capital

Intellectual capital can be considered the intellectual property that the organization produces. This might involve the organization's customers in terms of brand loyalty. In addition, it might be related to the organization, referring to experts in the organization in gathering knowledge, trading secrets, and systems and methods, including personal knowledge such as specialized knowledge and skills. Intellectual capital then emphasizes the importance of adding value to assets and reducing the burden of expenses to a minimum. The basis of this strategy is to gather information on the specific knowledge that the organization has and to assess future needs.

5) The Development of Managers

Supervisors and management development strategies are the subject of a long-term view on how to create an effective organization for (1) ensuring that supervisors and executives understand the expectations that the organization has for themselves and accepting the goals that the organization wants and the results of assessments and areas that need improvement from performance deviations from the goals; (2) classifying supervisors according to their potential to stimulate preparations and actions in human resource development and to ensure that supervisors are

required to have greater responsibility in their area and elsewhere within the organization; and (3) implementing successors and building systems and reviewing them regularly.

6) The Development of Emotional Intelligence

In developing emotional intelligence, Goleman, cited in Armstrong (2000), stated that the ability to perceive one's feelings and that of others contributes to one's emotional management and aids in management, thereby improving the relationship among people in the organization. Emotional intelligence can make a person successful as a leader and can be identified as follows: (1) the ability to control one's emotions and behavior; (2) the ability to perceive and understand emotions, conveying them and knowing their impact on others; (3) the ability to understand other people's emotions and skills in responding to others' emotions; and (4) the ability to manage relationships and build networks with others in order to obtain results or achieve desired goals.

7) The Development of Strategic Capability

Strategic competence includes the ability to properly select strategies and actions as well as the selection of suitable resources. Harrison (1997) proposed that the stimulation of strategic competence involves planning the learning activities that individuals need to improve, including: (1) understanding the rapidly changing business environment; (2) the ability to create a strategic vision; (3) understanding strategic decision-making tools and processes; (4) understanding the methods for creating strategies; (5) selection and evaluation of strategic decision-makers; (6) linkages between strategy and performance; (7) quality of thinking and strategic learning; and (8) management and development of an organizational knowledge base.

2.4.3.2 Concepts of Strategic Human Resource Development Focusing on the Organizational Context

1) Human Resource Development According to Tomas N. Garavan

Strategic human resource development can be regarded as the strategic management of development training and management or professional educational intervention in order to achieve organizational objectives. At the same

time, the effective use of the detailed knowledge and skills of each employee is ensured (Garavan, 1991). It also highlights the need for integration into business planning as essential for strategic human resource development, as well as participation in organizational goals and mission awareness. It has then been suggested that the active support and involvement of senior management as stakeholders are essential to the development of strategic human resource development. His study argued that the external environment impacts opportunities or obstacles to business operations and human resource development. It is an important factor contributing to the strategic development of human resources. The nine key features of the strategic human resource development proposed by Garavan (1991) are the following: (1) integration with organizational missions and goals; (2) senior management support; (3) organizational environmental review; (4) human resource plans and policies; (5) the supervisor's commitment and participation; (6) the existence of complete human resource management activities; (7) the expanded role of trainers; (8) cultural awareness; and (9) focus on evaluation. It is generally accepted that strategic human resource development is representative of a model developed from previously emerging human resource development. Later, Garavan (2007) attempted to introduce new approaches in terms of strategic human resource development integrated in alignment with the organizational structure at each level (vertical) and at the same level within the organization (horizontal) in learning activities and development, which could lead to the achievement of strategic goals. Strategic human resource development was divided into four levels: level 1 was the international environment, which focused on the adaptation of various systems, policies, and practices. This level model proposed an international environment that could be understood under local, national, and international conditions. Level 2 included strategy, culture, and leadership. The model at this level influences the strategic human resource development practices adopted by the organization and the organization's priorities in obtaining strategies. They generally focus on training skills that lead to productivity and efficiency. Level 3 was job value. Job specificity was at different levels in job value and job specificity. The organization decides on the applied strategic human resource development practices based on the importance of the job. The last level has to do with the individual expectations of the value of the

person in the organization. Employee expectations and organizational decisions are relevant to employees that are considered good in the organization through the implementation of strategic human resource development.

2) The Human Resource Development Concept of Jim Grieses
Grieses (2003a) offered four key characteristics for strategic human resource development. He stated that the four key principles should consist of strategic human resource development as part of organization's strategy; responsibilities assigned to the supervisor; upgrading training to learning, and the learning of the organization from the basis of the work, which can be described in detail as follows:

(1) Strategic Human Resource Development as Involved in Organizational Strategy

This is a human resource development perspective that is a strategic advantage through business strategy by managing both at the employee level and the organization level. Organizational change is a key driver at three levels: organizations, groups, and individuals. However, strategic human resource development is not just a reflection of senior supervisor strategies; the supervisor has to be aware of the internal processes of the team and of as many employees as possible.

(2) Responsibilities Assigned to the Supervisor

The supervisor's role has to be adjusted through both individual development and as a team in order to develop the necessary skills and knowledge suitable for the job, and to acquire the ability to create ethical values and accountability for the organization. This means that supervisors have to be motivated and developed in their creativity, mentoring employees and representing change. This is the decentralization of decision-making so that customer needs can be responded to quickly.

(3) Raising the Level of Training to Learn

Learning from a strategic human resource development perspective transcends the principles of motivation and responsiveness through a training program. Rather, it focuses on developing knowledge as a resource of the

organization and creating synergies among groups or teams, focusing on new ideas in creating products and services or finding new solutions to problems.

(4) Learning of the Organization from the Fundamentals of Work-based Learning (WBL)

This is essential for the development of human resources; it is what the organization has to give great importance to as it leads to the development of learning within the organization. It requires a continuous development process through a variety of activities within the organization. WBL does not need to adjust to any strategy but follows the organization's existing one. It is also important to incorporate future predictions into the organizational learning design.

3) The Peterson Model

Peterson (2008) explained the concept of systematic thinking by acknowledging the importance of the external environment. The main point of interest was the size of the internal environment, such as human resource management capabilities, strategic human resource development goals and objectives, and the role of the human resource development professionals as strategic partners. He assumed that strategic human resource development operated within a broader social context, including the economic, regulatory, international, competitive, global, cultural, and political factors that were involved. Sometimes these factors influenced organizational responses through foresight. Peterson (2008) proposed a three-dimensional model within the organization that facilitated strategic human resource development; namely, learning culture, commitment to improving efficiency, and the ability to make strategic contributions. This model showed that the learning culture was one that provided a systematic, sustainable, and continuous opportunity for the development of employees' abilities.

From a collection of important research efforts to present a model or feature of strategic human resource development as a guideline for the development of employee performance and the performance of the above organization, it can be seen that each conceptual perspective and sub-element of strategic human resource development focused on two levels (Becker et al., 2001; Boudreau & Ramstad, 2004; Dwyer, 2000 ; Garavan, 1991; Gilley & Maycunich, 2000; Lee, 1997; McCracken & Wallace, 2000; Pfeffer, 1998; Robinson & Robinson, 2005; Torraco & Swanson,

1995; Ulrich, 1998). They focused on the development of employee performance and building the performance of the organization, as shown in a wide variety of strategic human resource development models today. Much of the research attempted to apply the principles of Garavan (1991) as a model for testing relationships with organizational performance. As there are many elements in the strategic operation of the organization, previous studies stipulated the idea whether “strategic HRD” and “HRD strategy” were the same or different. However, many components of strategic human resource development can be categorized in context through strategic organizational management in order to create a suitable environment for learning. The concept of Armstrong (2000) was also aimed at raising the level within the organization to learn about and develop human resources to be more strategic. The components of strategic human resource development based on the concept of researchers and scholars can be divided into two contexts as follows:

Table 2.3 Key Components of Strategic Human Resource Development

Scholars	Key components	Contexts of SHRD
Armstrong (2000)	(1) Individual learning	Developmental context
	(2) Development of learning and learning organization	Organizational context
	(3) Knowledge management	
	(4) Intellectual capital development	Organizational context
	(5) Supervisor development	Organizational context
	(6) Emotional intelligence development	Developmental context
	(7) Strategic capability	Developmental context
Garavan (1991)	(1) Consistency with the mission and goals of the organization	Organizational context
	(2) Support from top management	Organizational context
	(3) Organizational environment inspection	Organizational context
	(4) HRD plans and policies	Organizational context

Scholars	Key components	Contexts of SHRD
	(5) Supervisor commitment and involvement	Organizational context
	(6) Existence of complete human resource management activities	Organizational context
	(7) Expanded trainer roles	Organizational context
	(8) Cultural perception	Organizational context
	(9) Focus on evaluation	Organizational context
Garavan (2007)	Level 1: The overall environment at local, National, and international levels	Organizational context
	Level 2: Strategy, structure, culture, and leadership	Organizational context
	Level 3: Work value, specificity of work	Organizational context
	Level 4: Individual expectations, the value of the individuals in the organization	Organizational context
Grievies (2003b)	(1) Development of strategic human resources as involved in strategy	Organizational context
	(2) Responsibilities assigned to the supervisor	Organizational context
	(3) Raising the level of training to learning	Organizational context
	(4) Learning of the organization from the fundamentals of work	Organizational context

Table 2.3 summarizes the varieties of strategic human resource development components. It is evident that many researchers and scholars alternatively proposed components of strategic human resource development linked to organizational strategy for the management of the organization and human resource professionals. Among the interesting concepts, Armstrong (2000) concept is a mix of components that should be featured in the concept of the elevation from human resource development to strategic human resource development. Therefore, in

constructing a model to be used for an analysis based on the structural equation modeling, the researcher selected components from the two contexts that mainly focused on the development dimension in order to provide clarity in the direction of the correlation through SEM analysis.

2.4.4 A Guideline for the Human Resource Development of Thai State Enterprises

As for human resource development in government affairs in accordance with the concept of human resource as human capital by the State Enterprise Policy Office (2020), the government provides guidelines in the area of learning and development for employees of Thai state enterprises according to five levels.

Guidelines for human capital development Level 1: the learning system design and organizational development should contain at least the following components: (1) core/managerial/functional competency necessary to conduct business both today and in the future including supporting change in digital technology; (2) complete and quality assessment of competency gaps of personnel to be used as an individual development plan (IDP); (3) long-term human resource development roadmap taking into account the development of personnel having both knowledge and skills that correspond to business changes; (4) leadership development at all levels, including primary, middle, and senior management; (5) modification of personnel development that is not focused solely on training, such as coaching and on-the-job training, and concept creation and responsibility for self-learning; (6) development of temporary and outsourcing development; and (7) development of digital technology that supports the learning system.

Level 2: assessing the effectiveness of the learning system and various developmental styles other than training, including the analysis of the returns on investment of employee development in order to utilize decision-making and to improve human resource development plans

Level 3: completing operations according to the annual work plan with an effective mechanism or process for monitoring and evaluating performance and obtaining the results as specified

Level 4: learning and development systems that are linked to the organizational strategic plan and important programs, such as customer and market plans, digital technology plans, innovation plans, knowledge management plans, etc.

Lastly, Level 5: using feedback from the operations of the annual work plan. This includes information from other sources to be updated so as to be in line with the changes and for improvement that is focused on continuous development in order to work at maximum efficiency.

In this way, the organization will have personnel that like to do research, learn new things, and always have creative ideas that will help those personnel to use their ideas to help develop the organization. The creation of a learning culture is something that the organization has to help create for a learning environment for personnel. As a result, self-learning will continue to increase in the future. In addition to learning to develop themselves, personnel will learn to apply their acquired knowledge to better develop their work. In addition, at the supervisory or at the line manager level, they can help create a learning atmosphere by giving advice and encouragement to employees to learn and exchange knowledge with one another. This will encourage learning to develop work and to help improve performance both at the individual level and at the organizational level. Personnel-centered learning and the development of the concept of human capital development of Thai state enterprises are illustrated in Figure 2.4.



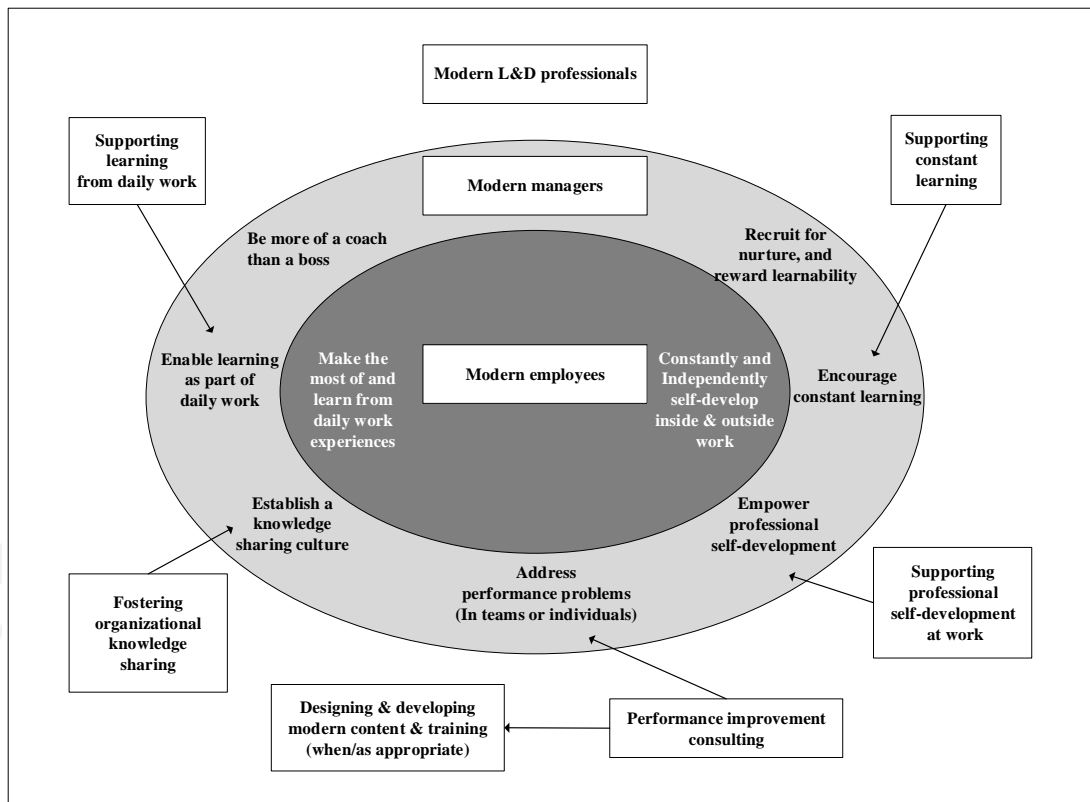


Figure 2.4 Personnel-Centered Learning and Development of the Concept of Human Capital Development of Thai State Enterprises

From the collection and synthesis of the concepts related to strategic human resource development in order to realize the common purpose of enhancing human resource development for the development of strategic human resources, it is clear that the main principle shared by scholars and the researcher is that strategic human resource development must be linked to organizational strategies. Thus, from a review of the literature since the beginning of the 21st century, it can be seen that the concepts of strategic human resource development have varied. In conclusion, however, there are two dimension of human resource development, which are providing a variety of training and development activities and building suitable contexts within the organization. In this way, the duplication of both organizational and human resource strategies was addressed. Focusing on this discussion will lead to the construction of a research framework, thus leading to further testing of the relationships.

From the perspectives and results of various concepts of strategic human resource development, the meaning of strategic human resource development is that

knowledge learning and sharing as well as applying the existing and acquired knowledge to connect with the vision, mission, and strategy of the organization have either persisted or changed. The essential components of strategic human resource development have focused on two contexts. First is the developmental context, which has focused on development of knowledge, abilities, skills, and the emotional intelligence, especially for middle managers, supervisors, and employees to have the ability to meet the needs of the organization. The other is the organizational context, which creates an environment to support such development as that from the management of effective human resource development policies and plans and the increasing roles of managers and human resource professionals, etc.

Therefore, in selecting observed variables for testing the strategic human resource development design in accordance with the objectives of this research, the researcher defined sub-components that divided human resource development into two first-order constructs: the developmental context construct and the organizational context construct. As for the selection of latent variables from the aforementioned literature review and for strategic human resource development related to the developmental context, it consists of three observed variables: (1) individual training and development of employees at the operational and supervisory levels; (2) emotional intelligence development; and (3) strategic capability development. As for strategic human resource development related to the creation of an organizational context, it consists of five observed variables: (1) support from top management; (2) the efficiency of human resource development policies and plans; (3) the roles of HRD professionals in supporting people's development in the organization; (4) the level of involvement of supervisors; and (5) the efficiency of HRD evaluation. However, it can be seen that researchers set observed variables related to the organizational context in strategic human resource development, both to create the overall environment of the organization and to create the environment-specific activities in certain parts of the organization. In addition, some observed variables were taken into account in strategic human resource development, such as organizational culture perception and individual expectations, etc. As these factors are related variations according to the demographic characteristics or opinions of the sample groups in the study, the researcher focused mainly on selecting observed

variables related to the creation of the overall organizational environment that supported strategic human resource development.

2.4.5 Relationship Between Strategic Human Resource Development and Job Satisfaction

In the study of strategic human resource relations, the relationships from the strategic human resource development elements of each organization were used. These appeared in both the development of individual learning and organizational learning and development into a learning organization, knowledge management, cognitive capital development, supervisor development, the development of emotional intelligence, and the development of strategic talent that would result in the development of employees and the satisfaction of their performance under the human resource development model in various dimensions.

In the study of the relationships between strategic human resource development and job satisfaction, activities related to SHRD, i.e., individual learning development, organizational development into learning organization, knowledge management, cognitive capital development, supervisor development, emotional intelligence development, and strategic capability development, are considered. These activities are expected to further improve employee performance.

Some previous studies have examined the influence of the relationship between human resource development and job satisfaction, such as the study of the relationship between job satisfaction and the overall workplace training of technicians in both American and Canadian organizations. This study was based on the training components, job analysis, and training time. Training methods and content were found to be significantly positively correlated with job satisfaction (Schmidt, 2007). In addition, Vasudevan (2014) conducted a study of the influence of training on the work commitment, job satisfaction, and employee performance in various organizations in Malaysia. It was seen that assessment of training needs, content, delivery methods, and training assessments positively affected and had a significant influence on employee job satisfaction. A few years later, to make clear the correlation between strategic human resource development and job satisfaction, Tizikara and Mugizi (2017) conducted research on human resource development and employee job

satisfaction at the Public University in Uganda, which revealed that HRD has a positive effect on job satisfaction. On the other hand, the work of Coyle-Shapiro et al. (2013) also pointed in the same direction, showing that HR planning can lead to better productivity among employees.

In this paper, the researcher applied the approach of strategic human resource development in various development dimensions according to the concept of Armstrong (2000) when testing the relationship with the job satisfaction of employees in the state enterprises listed on the Stock Exchange of Thailand. Therefore, hypothesis 3 is set as follows:

Hypothesis 3:

Strategic human resource development design has a significant and positive effect on employee job satisfaction in the state enterprises listed on the Stock Exchange of Thailand.

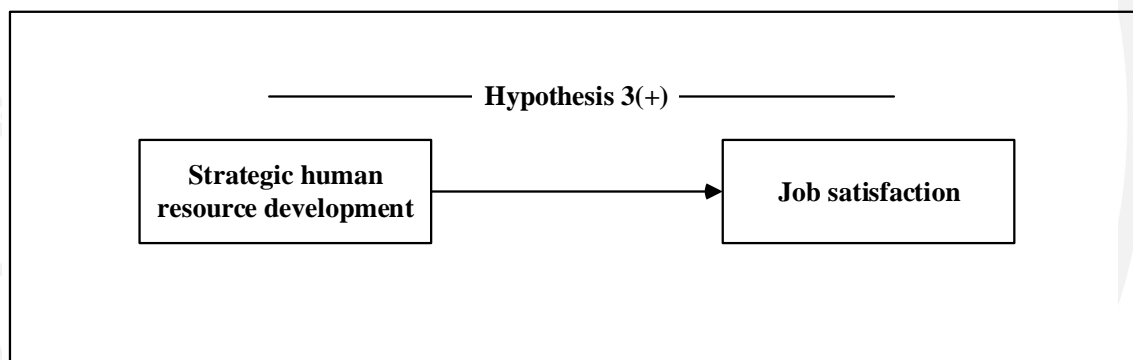


Figure 2.5 Hypothesis of the Relationship Between Strategic Human Resource Development and Job Satisfaction

2.4.6 Relationship Between Strategic Human Resource Development and Employee Performance

Employee performance is a variable in this research, as this research aims to find out in what ways organizations can generate efficiency through strategic human resource development. In terms of performance, a number of academic works have been carried out using different perspectives in order to lead to good employee performance. Examples of academic work, such as that of Shields (2015), indicated

that employee performance can be divided according to the level of work performed by the employees and their responsibilities, and it was found that employee performance at each level was relevant to results and success. In addition, Ahmad, Farrukh, and Nazir (2015) stated that employee performance is relevant to organizational culture. Armstrong (2000) concept of strategic human resource development differed from existing human resource development, which offered a general development model for the individual. However, the concept of strategic development needs to be consistent with the strategy and goals of the organization. Therefore, multi-dimensional development is the overall development or the creation of a developmental environment in the organization that will support individual development. This includes the importance of employee development at the supervisory level in order to drive the strategy of the organization, which can anticipate the success of the organization from strategic human resource development. Moreover, in a study of the results of the effect of strategic human resource development on the performance of the organization, Lyons (2016) showed that SHRD has a constructive influence on the performance of the organization as a whole. The results illustrated that SHRD affects organizational performance with the highest factor loading value of the workforce-focused result variable, indicating that this variable is closely associated with the SHRD construct of the study. In addition, Mohamed et al. (2019) found a significant and positive relationship between HRD constructs and employee performance.

Therefore, in this paper, the researcher tested strategic human resource development design as an exogenous variable in order to find the relationships with the employee performance in the state enterprises listed on the Stock Exchange of Thailand in order to find the direction of both the direct and indirect influences. Therefore, the following research hypothesis is suggested:

Hypothesis 4:

Strategic human resource development design has a significant and positive effect on employee performance in the state enterprises listed on the Stock Exchange of Thailand.

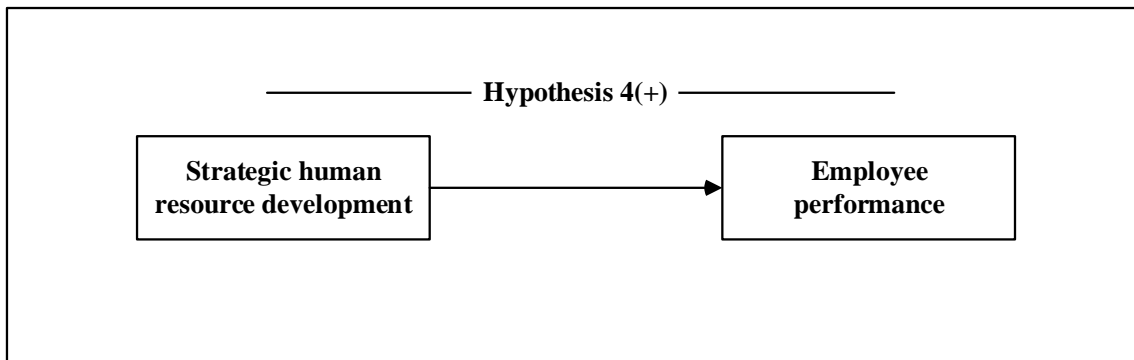


Figure 2.6 Hypothesis of the Relationship Between Strategic Human Resource Development and Employee Performance

2.4.7 Relationship Between Strategic Human Resource Development and Employee Commitment

Given the number of factors that cause employee commitment, strategic human resource development can be seen as an elevated perspective on the development of the original HRD concept. London and Bray Douglas (1984) and London and Mone (1987) presented important aspects for managers in terms of organizational behavior analysis. The gist of their proposal suggested that career motivation and organizational commitment are positively related to each other. This is because employee commitment is highly associated with employee participation, and there is a positive correlation between job commitment and behavior and employees' job improvement roles; job commitment therefore is a key goal in human resource management.

Even with relatively little literature on these factors, in a study by Benjamin (2012) on human resource development climate and employee commitment. Some of the human resource development variables were viewed as being relatively related to the study, which consisted of developmental functions such as formal and informal training, career development, performance management and development, organizational development, and coaching and mentoring. This development was focused on a superior workforce so that the organization and individual employees can accomplish their work goals in service to customers. The results from the data analysis highlighted that the human resource development climate is strongly affected

by affective commitment variables more than continuance and normative commitment variables. This led to the conclusion that affective commitment is an employee's psychological attachment to the organization. This study provides the observation that those that are perceived as having more human resource development within an organization are more likely to have high affective commitment. Additionally, career motivation was seen as being positively associated with affective commitment. However, when considering the positive relationships between career motivation and job satisfaction, this study suggested that career motivation supports employees' job satisfaction. This can be done by positively reinforcing for efficiency and creating job success opportunities through supporting challenging career development and potentially improving employee motivation.

Therefore, in the present study, the researcher aimed to test the relationship between strategic human resource development and employee commitment variables in order to explain the direction of the relationship by putting forward the following hypothesis:

Hypothesis 5:

Strategic human resource development design has a significant and positive effect on employee commitment to the state enterprises listed on the Stock Exchange of Thailand.

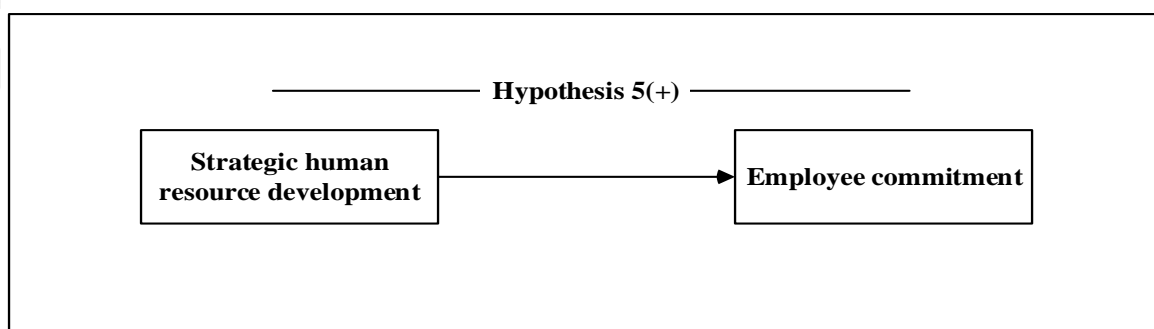


Figure 2.7 Hypothesis of the Relationship Between Strategic Human Resource Development and Employee Commitment

2.4.8 The Mediating Role of Job Satisfaction in the Relationship Between Strategic Human Resource Development and Employee Performance

In general, job satisfaction is believed to be one of the psychological factors influencing employee commitment and dedication toward the achievement of organizational goals. Therefore, if employees are satisfied with their job, it is likely that they will make an effort toward innovation and creativity through their job performance (Achieng'Odembo, 2013). From the organizational perspective, human resource development is an essential element in the development of employee proficiency and knowledge that can ensure sufficient skills for effective performance of their current duties and other challenging tasks assigned to them in the future. As such, it is of interest as to the way in which job satisfaction can support the relationship between strategic human resource development and the employee performance in the state enterprises in this study. Past study regarding the role of job satisfaction as a mediator between the causal factors and employee performance in various dimensions also showed a positive result in support of such a role. A similar example of this study can be seen in the study by M. K. Jones, Jones, Latreille, and Sloane (2009), regarding training, job satisfaction, and workplace performance through the British 2004 Workplace Employee Relations Survey (WERS). Furthermore, there is clear evidence of a positive relationship between job satisfaction and training, and job satisfaction and the measures of performance. The complexity of the relationship between training and performance depends on the particular measures of training and performance provided in the study. This study suggested that employers might be able to improve established performance by increasing the volume of training and by taking action to raise the job satisfaction of the workforce, but to succeed in this they also need to pay attention to the quantity and type of training offered.

Another example is a study by Khan, Abbasi, Waseem, Ayaz, and Ijaz (2016) on the impact of training and development of employees on performance in the telecom sector of Pakistan. One of the main objectives was to investigate the relationship between the training and development of employees and employee performance with job satisfaction as a mediator. This study showed empirical evidence that there was a positive impact between training and development and job

satisfaction through employee performance. Therefore, this paper summarized that training and development can lead to higher employees' job satisfaction level and that they will fulfill their duties with a great deal of responsibility with the best performance. In addition, Tentama, Kusuma, and Subardjo (2019) studied job satisfaction as a mediating variable in the effect of transformational leadership on the performance of the educational staff of a university. The results confirmed that job satisfaction significantly mediated the relationship between transformational leadership and the performance of the educational staff. Therefore, in order to confirm the mediating role of job satisfaction, the researcher set the research hypothesis as follows:

Hypothesis 6:

Job satisfaction significantly mediates the relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

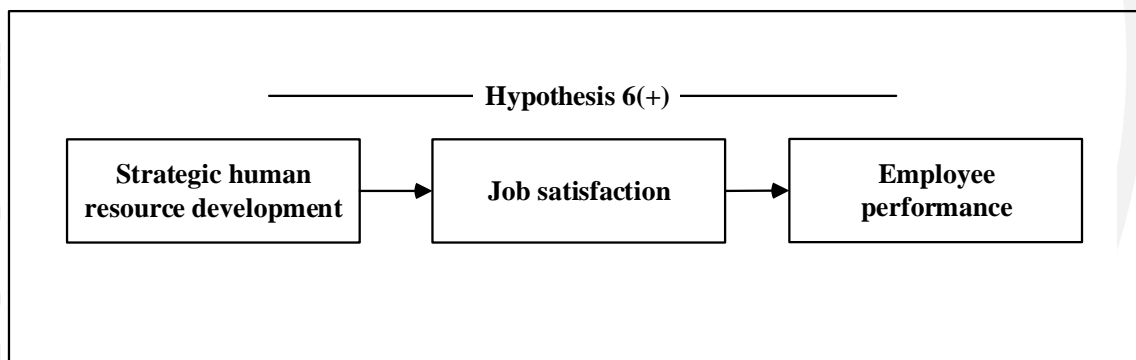


Figure 2.8 Hypothesis of the Mediating Effect of Job Satisfaction on the Relationship Between Strategic Human Resource Development and Employee Performance

2.4.9 The Mediating Role of Employee Commitment in the Relationship Between Strategic Human Resource Development and Employee Performance

When discussing the effect of employee commitment, it can be caused by a number of factors. SHRD provides an elevated perspective on the development of the original HRD concept with relevant research work in the same direction as

organizational commitment. When considering employee commitment as an independent factor that contributes to employee performance, one person's relationship with another in the work environment often shows the bond between employees and related organizations. Such commitments between each other are measured in terms of employee productivity and organizational policies. It can be concluded that commitment to work in the organization is composed of employee behavior, focusing on real career commitment that provides concrete internal and external substantive material environments within the organization, retaining the organization's employees. Career commitment is on the performance of the employees receiving and appreciating the temptation to match performance that might be rewarded as well as the organization's returns. One of the key factors is the physiological or emotional engagement of the employees responsible for the positive response from the organization through loyalty, feelings of warmth and happiness, etc. Overall, career commitment supports organizational goals. This study analyzed various theories, focusing on the conceptualization model of Meyer and Allen (1997). Most organizational careers are planned with strategic procedures under the control of the organization, and most behavioral characteristics are presented in a manner aimed at improving current jobs and relocation intent (Kossek et al., 1998).

Over the years, research studies looking at similar relationships with career commitment were defined and measured in a number of ways. This might complement the treatment and stimulation of employee behavior or represent the bond that people in the organization had. The first example is that of Rehman (Rehman et al., 2013), who studied the influence of the factors affecting organizational commitment. The results indicated that compensation and work have a significant influence on organizational commitment to general education while career development has no impact on the commitment of the organization in Pakistan. Compensation affects higher commitment, which outweighs the nature of the work for which the employees are responsible. Another example was that of Arnold and Davey (1999) study of employee performance-related commitment, where it was found that measuring employee work behavior was positively correlated with career commitment. Therefore, the following research hypothesis is suggested:

Hypothesis 7:

Employee commitment significantly mediates the relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

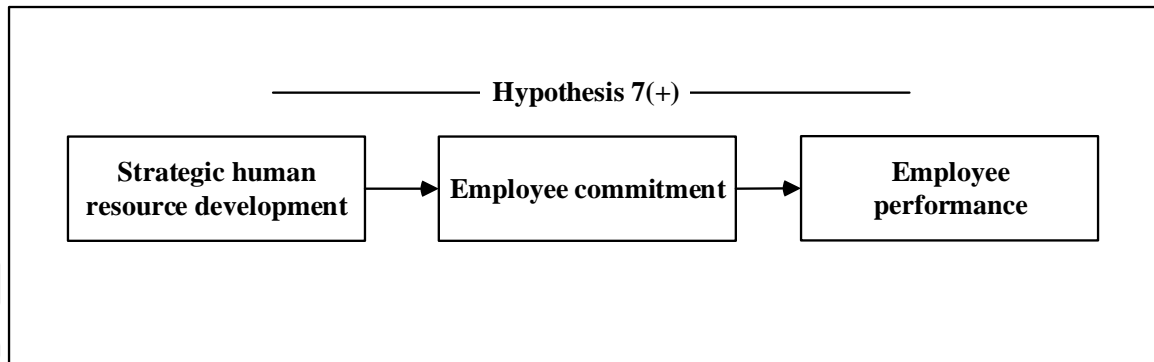


Figure 2.9 Hypothesis of the Mediating Effect of Employee Commitment on the Relationship Between Strategic Human Resource Development and Employee Performance

2.5 Career Development Needs

In studying the concept of the career development needs of the employees, it was initially necessary to understand the definition of “needs” and “career development.” The term “needs” is a concept associated with motivation. As for “career development,” it has been studied in a lot of research using a similar approach, such as career advancement, professional development, and career aspiration. For example, career aspiration focused on students’ level of commitment to building a career or developing themselves into professionals of their choice. This also includes education that focuses on developing oneself toward professional expertise, also known as “professional development,” concentrating on career groups such as teachers. However, this research focuses on the career development needs of each employee. These needs lead to motivation that can drive employees to develop themselves in their work, leading to good performance.

2.5.1 Theory of Needs

When it comes to the term “needs,” the more widely known and accepted theories are Maslow's needs theory, ERG theory, and McClelland's two-factor theory, which have gained great academic support as they correlate with achievement and productivity. Robbins, Collins, Morhayim, and Cowen (2010) described the hierarchy of needs as a well-known theory developed by Maslow (1943), a psychologist at Brandeis University. The theory states that a person's needs can be ordered from the most basic to the highest level. There are three key concepts in this theory. First, the person is a demanding being where demand is a motive for behavior. Only unmet needs are motivated. The needs that have already been met are no longer motivated. Second, the individual's needs are hierarchical, sorted by importance from basic needs to more complex ones. Lastly, when the basic needs are met, the person moves to the higher order needs. The individual needs of Maslow's theory can be categorized into five levels, from low to high. When considering the need for professional development under Maslow's hierarchy of needs, the career development needs of employees should not be classified as a basic requirement in the hierarchy. Rather, they would be an entry into the level of esteem needs. Once social needs are met, employees would want to make themselves more prominent, such as having pride and building self-esteem, appreciating the accomplishment of the job for which they were responsible. As for the feeling of self-confidence and esteem, the requirements are rank, position, high salary, challenging work, recognition from others, participation in job decision-making, career advancement opportunities, etc. In addition, advancing to the highest needs from the occupation or self-actualization requires the fulfillment of one's potential by achieving one's highest wishes, progressing to the development of skills to the maximum, being independent in making decisions, and being able to think creatively as well as advancing to a higher position in one's career and work, etc.

Maslow (1954) hierarchy of needs was divided into two groups: (1) deficiency needs, which are basic needs that include physical and safety needs; and (2) growth needs (advancement and self-development), e.g. social needs, the need for fame, and the need for fulfilling life, which are classified as high-level needs. The basic needs are met by external factors while advanced needs are addressed by factors within the

individual. However, many later studies did not support all of Maslow's ideas, but his theory of the hierarchy of needs was the basis for explaining the elements of motivation that have evolved in recent years. For example, the theory of Clayton Elderfer (ERG), from Yale University, was built on Maslow's theory of needs, though it was reduced to only three levels: (1) existence needs, which are physical and life safety needs; (2) relatedness needs, which are requirements related to interpersonal relationships in the workplace and other environments, and this was comparable to the social needs of Maslow's theory; and (3) growth needs, which are the internal needs of individuals for personal development, growth, and full utilization of one's abilities in the pursuit of opportunities and overcoming new challenges. This is comparable to the desire for fame and fulfillment in life, according to Maslow's theory. There are, however, differences between ERG theory and Maslow's hierarchy of needs. First, Maslow insisted that individuals would stop at a certain level of needs until the needs were met. However, ERG theory argues that if the level of a need remained without further response, the person will have a grievance and will pay attention to the lower need once again. Second, ERG theory asserts that more than one level of needs can arise during the same period. A person can be motivated by more than one level of needs at the same time, such as having high salary needs as well as social needs, etc.

Furthermore, there is the two-factor theory of motivation by Herzberg (1974), which is built on the motivation of a person. It is divided into hygiene factors, i.e. the work environment and the roles of supervisors, where, if imperfection or defectiveness occurs, the person will feel dissatisfied with the job. However, even if a defect is not present, it might not mean that they failed to be satisfied with the job. Rather, it is considered a factor that helps to maintain the level of job dissatisfaction instead of factors that promote effective work performance, for example, organizational policies, the operating environment, relationships between colleagues, the management model, compensation and benefits, job stability, etc. Motivating factors are those related to job duties and job satisfaction, and they make individuals put more effort and dedication into their work, such as success, recognition, challenging assignments suitable for their skill level, opportunities for advancement in work and personal development, etc. There are two steps according to Herzberg (1974). First, the supervisor or manager must ensure that hygiene factors are not

lacking or defective, such as the appropriate salary level, a safe working environment, etc. This is to ensure that workers will not be dissatisfied. The second step is to provide an opportunity to gain incentives, such as being recognized for achievement and performance, delegating responsibilities that give employees opportunities to use their talents in important tasks, etc. The response to hygiene factors will first make employees feel neutral. Then the use of incentives to create satisfaction will encourage employees to be more active in their work. According to Herzberg (1974), this reduced Maslow's hierarchy of needs to two levels: (1) the hygiene factors, comparable to meeting basic needs, which included physical, safety, and social needs; and (2) incentive factors, which are comparable to the response to high needs, which are the need to experience fame and to fulfill one's life.

In addition to theories related to needs, relevant concepts that lead to the career development needs of employees to lead to more effective performance, such as aspiration, are fundamental to the needs of employees in different ways as well. Hence, career aspiration is evident in similar studies. Researchers have defined this as a job or occupation that a person wishes to do. This desire is different from the expectation that a person will act because expectations are often based on reality (Ashby & Schoon, 2010). In addition, desire is what motivates a person and helps that person to accomplish what he or she wants (Litz, 2007). Motivation can come naturally. On the other hand, inspiration is constructive, difficult to achieve, and can be exhausting. The point of contention in this matter is a study of the influence of the professional development needs of employees to moderate the relationship between strategic human resource development and employee performance. This considers the level of a positive effect of such relationships with motivation as an intrinsic driver. On the other hand, extrinsic desires make employees ready to act on what they want to receive.

2.5.2 Concepts of Career Development

Over the past three decades, researchers have been very interested in answering the question of how the organization can develop employees' careers or develop older employees. Many studies have sought to support the concept of professional development at different ages. In general, people are faced with various

pressures that come into their lives. The pressures come from people's actions affecting others or being affected by other employees. The activities for career development, therefore, become personal choice.

As a whole, the career development process can be defined as a continuous development process in which individual progress is carried out through different stages. It can be performed in a specific manner or through the work that one is responsible for. For a career development model, there are a wide variety of activities and processes through the planning and management of the employee's career. The career development model is studied in parallel with the development of employees in organizations of different ages because they affect career development objectives differently, for example, career development for employees that begin working with the organization in the early days in order to achieve job success. This is meant to create job learning or organizational rules to find suitability in the occupation of employees and to find the "right" employees for the organization. The organization focuses on creating job competencies and awareness of what is needed in one's career or even career development for middle-aged employees working in the organization. This is considered a period of career review for selecting what is appropriate for the individual to do the job or to maintain efficiency in the responsible job, etc. As a result, career development is also related to the needs of employees that vary according to the age of the employee or the working life of the employee. The need for career development is therefore based on the concept of human needs that can be gained from work.

In addition, according to Donald E. Super's career development theory, the life span view of career development is comprised of the self-development of employees affected by complex biological, psychological, sociological, and cultural factors. Life's role is central to this theory, and a person can choose a career that allows him or her to express his or her thoughts (Gothard, Phil, Marcus, & Melvyn, 2001).

However, as mentioned above, the concept of career development has been used as an educational element in the area of career development needs, based on the belief that the career development needs of employees can better the relationship between strategic human resource development and employee performance.

2.5.3 Components of Career Development Needs

One of the challenges of the literature on career development needs is the design of the components to be the observed variables for testing the research construct as a moderator. After the search for definitions and concepts, the career development needs of state enterprise employees in the Stock Exchange of Thailand were based on David C. McClelland's theory of needs, expanded from the motivation concept arising from the need for power, affiliation, and achievement (McClelland, 1961). When an employee has a job or is seeking a supervisory position in the organization, he or she will endeavor to control or direct others through the exercise of his or her authority and be able to express his or her opinions and speak honestly. Motivated people often find joy in the appreciation of socializing with others. Success, which motivates those that have a desire to achieve their goals, is therefore a variable suitable enough to measure the need for the career development of employees in the state enterprises listed on the Stock Exchange of Thailand because of being a large enterprise and having an international management style. However, when the researcher determined the variables for measuring needs, it was still necessary to understand career development, which is relevant to the development of human resources. Although this research is not primarily focused on the study of the career development of employees, it represents the introduction of career development need variables as an educational component, the original concept of the development of the human mind. It is the author's view that the organization collect data from assignments rather than from the needs arising from employees. Hence, the need for career development is one of the factors that are of interest to study as the adaptive factors that result in strategic human resource development having an even greater impact on the relationship with employee performance.

From the evolving concept of human needs to a narrowed need for learning and professional development, this led to the concept of developing a needs component for this research based on McClelland (1961) proposed learned needs theory. In conclusion, individuals learn needs from involved societies in which the needs are formed and developed throughout their lives. They also learn that the major social needs consist of three needs, as discussed below:

1) The need for achievement is the need of people to develop work to be more effective and to have a higher standard of life. Highly successful individuals exhibit behavioral characteristics that clearly reflect high career goals and perform challenging tasks to focus on job success rather than monetary rewards. They want to get feedback on their progress and success at all levels and are responsible for personal work rather than engaging with others.

2) The need for power is the need to control, influence, or take responsibility for the activities of others. People that have a need for power have such behavioral characteristics as seeking opportunities to control or influence others. They like competitiveness in situations that allow them to control others and enjoy confrontation or arguing with others. There are two aspects of the need for power, which are individual power and institutional power. The first entails wanting the power of the person to focus on personal interests rather than the interests of the organization. Institutional power, however, is directed toward the common good through working with others.

3) The need for affiliation is the need to keep friendships and interpersonal relationships intimate. This need for bonding represents an effort to build and maintain lasting relationships and friendships. People with this need want others to like them, enjoy favorite social activities and socialization, and seek participation through group or organizational activities.

The proportion of these three needs vary from person to person. Some people might have a higher demand for power than others, while others might have a high demand for success, for example, which can be part of their character. The hierarchical needs theory developed by psychologist Abraham Maslow stated that all human beings had five levels of needs with varying degrees for self-actualization, esteem, social, safety, and physiological needs. McClelland's theory expressed the idea that supported early research on motivation theory but might have relatively little practical effect compared with the other motivation theories (Maslow; McClelland, as cited in Smith, 2011). McClelland's model offered a model of the need for achievement or what is required for success, as displayed in Figure 2.10.

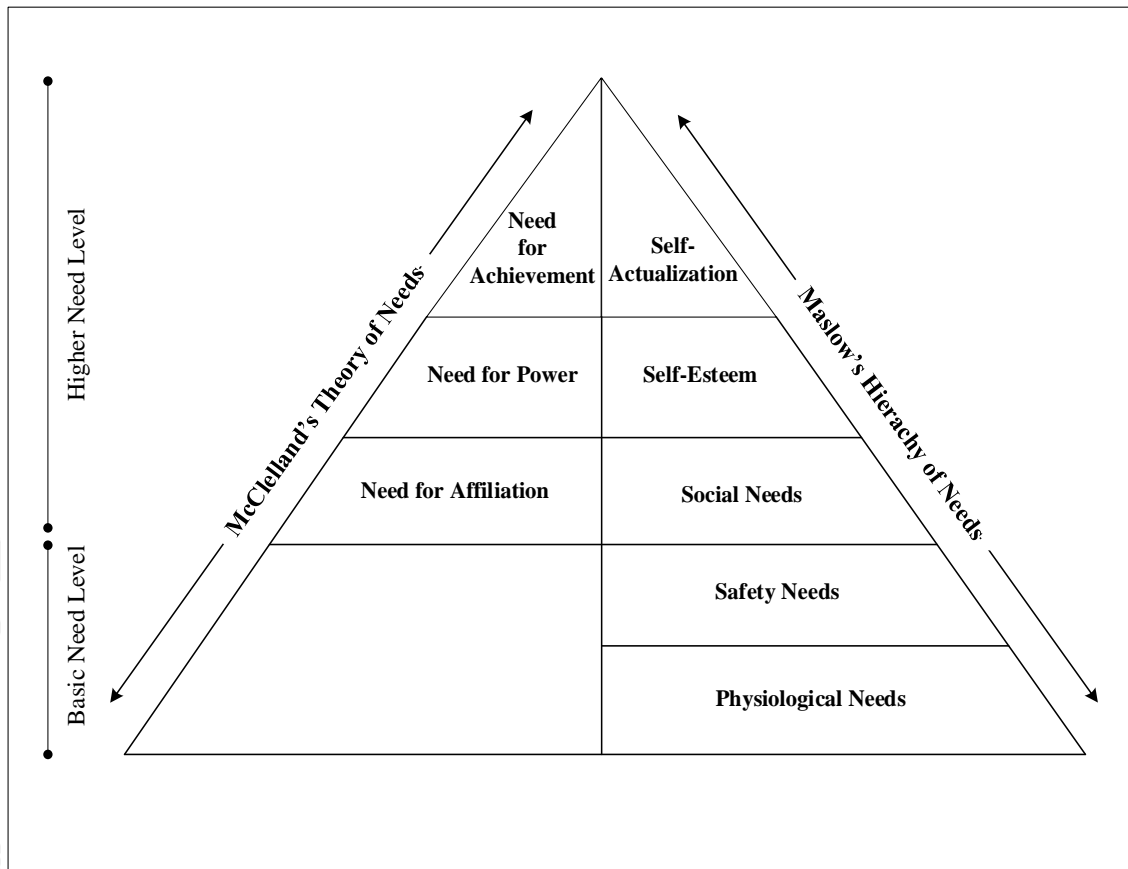


Figure 2.10 Comparison of the Needs Models of McClelland and Maslow

Adapted from Maslow's, McClelland's and Expectancy Theories

Source: Stietz (2016).

Career development needs or desires in one's career are inherent in each employee that has different objectives and goals. The nature of the requirements related to the performance of the work generally does not exhibit any individual differences. Consequently, McClelland (1976)'s conceptual elements are presented as a basis for career development needs for studying employees of the state enterprises listed on the Stock Exchange of Thailand by measuring three dimensions. These consist of the following. First is the need for achievement, which is the need to do better in order to achieve success. Employees that want to succeed will enjoy challenging tasks, join competitions, and want feedback in order to evaluate their performance. Second is the need for power, which is the need when employees want power to have influence over others by working with efficiency and want to be a

leader in decision-making. They are satisfied to be in competitive situations and have a need for pride from working with state enterprises. Third is the need for affiliation that arises from the need for employees to be recognized and be part of a group. They want to have a relationship and a bond with group members and have a good relationship with those that work in the organization. It is certain that the career development needs of an employee working with an organization can be seen as universal principles or can be applied to development standards in the same direction. However, this approach is not appropriate for all employees that work in the organization due to differences in their duties and responsibilities. Each employee has different foundations, knowledge and skills, levels of understanding, as well as career objectives or goals. Therefore, career development needs are where organizations can encourage employees to find ways to maintain their competence and professionalism as well as increase their work opportunities as far as possible.

In summary, the career development needs in this study refer to the needs or desires to motivate the development of work in the duties of employees in the state enterprises listed on the Stock Exchange of Thailand. It is based on the need to succeed in one's profession, the need to command power in one's job, and to be recognized and have good relationships among members within the organization to support the achievement of the objectives and goals of the people that want to be successful in their career.

2.5.4 Career Development Needs as a Moderating Variable of the Relationship Between the Strategic Human Resource Development Design and Employee Performance

The level of career development needs is comprised of the objective and personal goals that need to be achieved, so that employees with high career development needs can realize that good performance results from practice. Their work leads to the main goals that the organization want to receive from employees and ultimately leads to career development in their jobs. However, in the study of the relationship between performance and the career development needs of employees, it is not a particularly in-depth test of any related relationship. There are studies that can link individual goals, for example, the study of Rath and Conchie (2009) indicating

that employee performance is linked to the goals and objectives that employees achieve in their work. However, the study of the career development needs found in most research studies have examined the career development needs of people in educational organizations. This includes testing the career aspirations of students at different levels and being the motive for making decisions and striving for most of the goals they have set. However, the study of career development needs as a moderating variable in strategic resource development will likely have a positive impact. According to Armstrong (2000), employees' needs and desires are a factor to consider in the development of strategic human resources that can contribute to the performance of employees. The researcher, therefore, determined a hypothesis to find the influence of such a variable in order to support the relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

However, similar studies have been conducted on motivation. Theoretical needs are especially related to ERG theory, so the researcher would like to present information for further understanding, such as the London (1983) study, indicating that career motivation is one factor that can help explain this benefit by raising employee awareness of the relationship. Career motivation can be theoretically defined as having three key components: career resilience, career insight, and career identity. Career resilience is the ability to adapt to changing situations even if the situation is discouraging or disruptive. It consists of characteristics such as self-belief, willingness to take risks, and the desire for success. Career insight is the ability to have a realistic understanding of a particular profession. It consists of building a clear and feasible career goal and recognizing one's strengths and weaknesses. Career identity is the scope that defines one through one's work in the organization, and through career involvement and the need for progress. Career motivation and career identity are often used interchangeably (Carson & Bedeian, 1994).

Finding research results on the relationship between strategic human resource development is an idea that has remained controversial in its composition and a universal conclusion has not been reached on the approach of strategic human resource development that affects or that is related to other dimensions, especially the performance of employees and the organization. Hence, the importance of career

development needs is an interesting variable in testing its influence as a moderator in this research. Armstrong (2000) highlighted that the key concern to the success of strategic human resource development in building employee performance for the achievement of the goals of the organization is that employees should have an aspiration or need to develop themselves.

Therefore, the researcher used the career development needs construct in the study of influence as a moderating variable in the relationship between strategic human resource development design and employee performance based on hypothesis 8 as follows:

Hypothesis 8:

Career development needs significantly moderate the relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

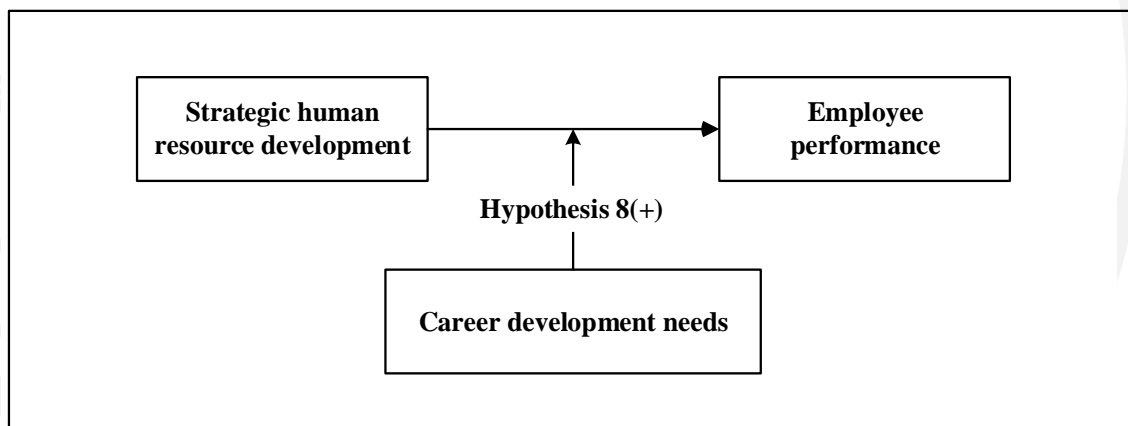


Figure 2.11 Hypothesis of the Moderating Effect of Career Development Needs on the Relationship Between Strategic Human Resource Development and Employee Performance

2.5.5 Career Development Needs as a Moderating Variable of the Relationship Between Job Satisfaction and Employee Performance

As mentioned above, needs and motivation are theoretically related to important concepts such as those of Vroom (1962) and McClelland (1953), where this research was used as a prime model in the design of observed variables in order to

determine employee needs. Therefore, it can be seen that there have been attempts in many studies to gather the needs discussed in various fields related to employees in order to lead to the cause of motivation for employees to work for the organization. An example is a study by Cole (2011), where motivation was seen as being fundamental to motivating employees to consistently strive for quality work. There have also been examples of studies that have sought to find out if motivation can support job satisfaction and improve employee performance (Amjad, 2018; Nor, 2018; Varma, 2017). This commitment is one of many factors that affect employee performance. In this study, such commitment was comparable to the need of employees to develop their careers. Such demand is, therefore, an impulse that might arise from the employees' extrinsic and intrinsic factors. This leads to the development of performance or to the creation of better performance in order to support the achievement of organizational goals. An example of a study aimed at explaining the key factors that could explain employee productivity. For example, Noor-Ul-Amin, Riaz, and Safeer (2019) stated in a study that employees are critical to organizational success. Therefore, in order for employees to be able to perform the tasks required by the organization, the organization has to create a work environment that encourages employees to perform well and to be satisfied. The results of the study indicated that the factors most influencing job productivity were employee motivation and job satisfaction. This research concluded that both of these factors affect the productivity of employees. The research revealed that the two factors can mutually support performance, so they are related and can lead to the search for the influences between them. In addition to studying the impact of employee incentives by Oluwayomi (2017), this study tested the variables on a sample of employees at an insurance company in Nigeria. In this study, employee motivation was seen as being complex and can motivate employees to have a desire or need to utilize their knowledge and abilities to do their job to the fullest. The incentives created by the employees of the organization were to make them work hard and to take full responsibility for their duties (Azar & Shafighi, 2013). Thus, in this same direction the researcher, therefore, aimed to test the factors of career development needs of employees, which are the elements that support or motivate employees with job satisfaction to focus on improving their performance for the organization. Therefore,

in order to obtain greater in-depth study results in this research, the career development needs construct obtained from the relevant literature review was used to test the direction of the influence of the correlation between job satisfaction and employee performance in the state enterprises listed on the Stock Exchange of Thailand, thereby influencing the researcher to form hypothesis 9 as follows:

Hypothesis 9:

Career development needs significantly moderate the relationship between job satisfaction and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

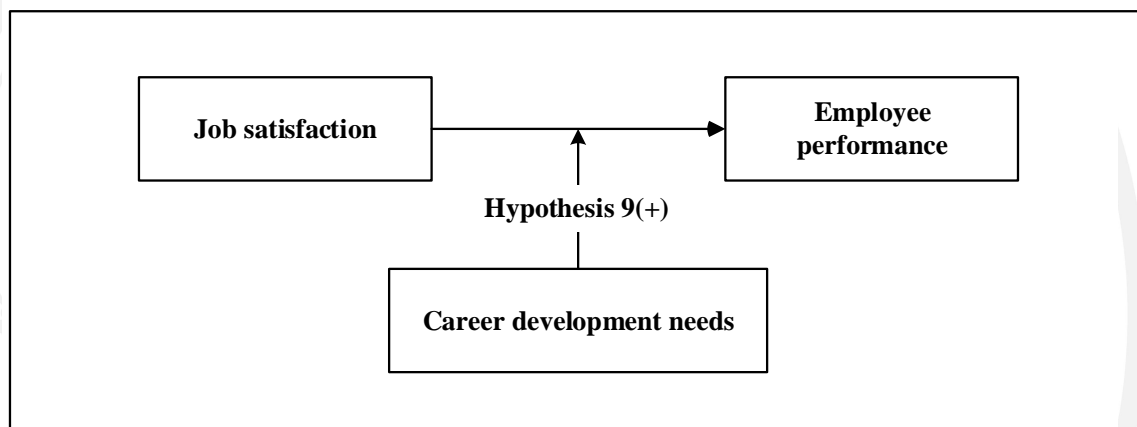


Figure 2.12 Hypothesis of the Moderating Effect of Career Development Needs on the Relationship Between Job Satisfaction and Employee Performance

2.5.6 Career Development Needs as a Moderating Variable of the Relationship Between Employee Commitment and Employee Performance

In order to study the role of career development needs in adjusting the relationship between employee commitment and employee performance, similar factors are taken into account. In the study of the influence of the variables on the relationship between work commitment and performance under expectancy theory in terms of both the nature of the external factors and the employees themselves, it appeared that expectation was positively correlated with both work commitment and organizational outcomes (Rainey, 1997). In addition, there have been studies relevant

to the study direction of the researcher seeking to influence the career development needs of employees, which was one of the incentives to engage employees to perform more efficiently. For example, a study by Gagné, Boies, Koestner, and Martens (2004) indicated that commitment arising from the inner feelings of employees can arise from their motivation, and organizations need to be aware of what can motivate and satisfy employees to do their job to the best of their ability (Bassy, 2002). Although previous study on the variables has not viewed the introduction of the determination factor or employee motivation as a factor that controls or adjusts the relationship between employee commitment and employee performance, it shows that both of these variables can have a positive effect on employee performance. Therefore, in order to lead to a more in-depth discovery to explain the influence of variable pairs on a correlation manner, the researcher used the career development needs construct in the study of influence as a moderating variable in the test of the relationship between employee commitment and employee performance based on hypothesis 10 as follows:

Hypothesis 10:

Career development needs significantly moderate the relationship between employee commitment and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

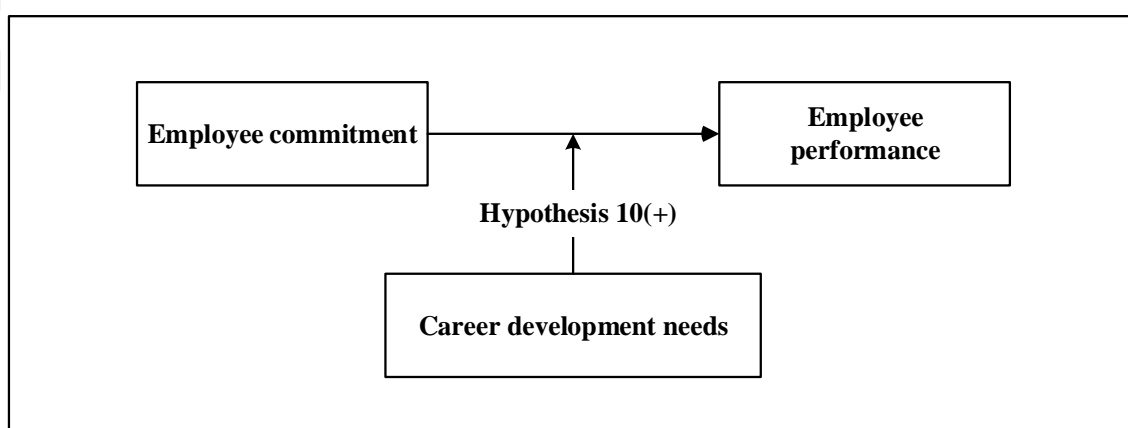


Figure 2.13 Hypothesis of the Moderating Effect of Career Development Needs on the Relationship Between Employee Commitment and Employee Performance

2.6 Research Framework

The study sought to find a causal relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand by testing job satisfaction and employee commitment as mediators and the development needs as a moderator. Therefore, the constructs and observed variables can be expressed as follows:

Table 2.4 Constructs and Observed Variables of the Study

Constructs	Types of Variables	Observed Variables
Employee performance (EP)	Endogenous variable	(1) task performance (EP1) (2) contextual performance (EP2) (3) adaptive performance (EP3)
Job satisfaction (JS)	Mediating variable	(1) nature of work (JS1) (2) compensation and benefits (JS2) (3) attitudes toward supervisors (JS3) (4) relation with co-workers (JS4) (5) opportunities for promotion (JS5)
Employee commitment (EC)	Mediating variable	(1) continuance commitment (EC1) (2) affective commitment (EC2) (3) normative commitment (EC3)
Strategic human resource development (SHRD)	Exogenous variable (higher-order construct)	-

Constructs	Types of Variables	Observed Variables
SHRD: Developmental context (DC)	Exogenous variable (first-order construct)	(1) individual learning (DC1) (2) emotional intelligence development (DC2) (3) strategic capability development (DC3)
SHRD: Organizational context (OC)	Exogenous variable (first-order construct)	(1) top management support (OC1) (2) HRD policies and plans (OC2) (3) HRD professional roles (OC3) (4) supervisor involvement (OC4) (5) evaluation of HRD (OC5)
Career development needs (CDN)	Moderating variable	(1) need for achievement (CDN1) (2) need for power (CDN2) (3) need for affiliation (CDN3)

From the study of the latent variables, both direct and indirect influences including a moderating variable as an interaction factor, the conceptual framework of this research can be illustrated in Figure 2.14.

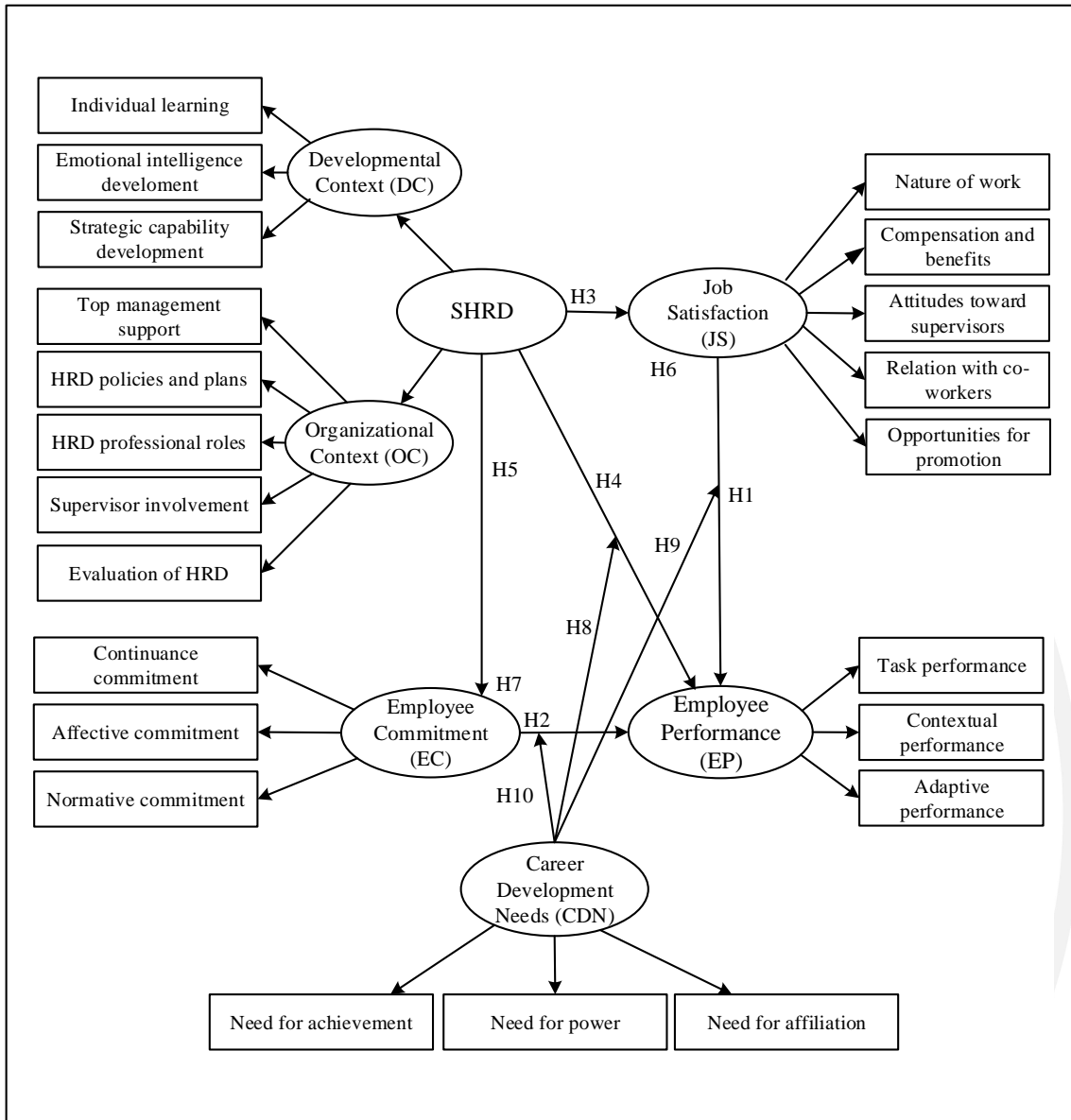


Figure 2.14 Conceptual Framework of the Study

CHAPTER 3

RESEARCH METHODOLOGY

This chapter discusses the methodologies used in the study of the causal relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand. For the overview, the quantitative research approach was primarily used through field surveys to study the role of the potential intervening factors in the relationship between strategic human resource development design and employee performance from the synthesis of the conceptual framework and theories. It was then tested with empirical data through structural equation modeling analysis, which is an analytical statistic suitable for research related to human behavior and social sciences in order to verify the model's validity in identifying the nature or the significant level of causal influences.

Therefore, the researcher divided the content of research methodology into the following:

- 1) Methodological approach (Section 3.1)
- 2) Target population and sample (Section 3.2)
- 3) Research instruments (Section 3.3)
- 4) Construction of the research instruments (Section 3.4)
- 5) Evaluation of the research instruments (Section 3.5)
- 6) Collection of the research data (Section 3.6)
- 7) Data analysis (Section 3.7)

3.1 Methodological Approach

According to the proposed conceptual model of the study in the previous chapter, the researcher designed the research methodology in order to investigate the theoretical relational path and to explain the empirical evidence to answer the

research objectives through the hypotheses. Hence, a mixed method was employed in this study for efficiency in the explanation of the findings. The approach was designed to be concurrent mixed method research (Morse, 1991), making the researcher collect and analyze both quantitative and qualitative data during a single phase, which places greater emphasis on quantitative rather than qualitative data.

3.1.1 The Quantitative Research Approach

The quantitative research method according to the objectives of this research was used in order to find the causal influence of strategic human resource development design on the employee performance in the state enterprises listed on the Stock Exchange of Thailand by using a statistical testing tool through the SEM technique in order to analyze the influence of the constructs.

In this study, the mediating and moderating variables were involved in the experiment in the relationships of strategic human resource development and employee performance through a field survey using a questionnaire. The research procedures were as follows:

- 1) Study of the concepts, theories, and research documents related to the employee performance, strategic human resource development practices, job satisfaction, employee commitment and career development needs to be used as a conceptual framework for the research
- 2) Creation of a conceptual framework and modeling of the hypotheses showing the influence of the exogenous variables on employee performance in the state enterprise listed on the Stock Exchange of Thailand
- 3) Building, development, and inspection of the tools for the data collection
- 4) Analysis of SEM, path analysis, and confirmatory factor analysis (CFA) using the Analysis of Moment Structure (AMOS) program in order to find the relationship of the two contexts of strategic resource development design in relation to employee performance in the state enterprises listed on the Stock Exchange of Thailand. It also tests the consistency between the research hypotheses and the empirical data. The AMOS program was used to analyze the interaction influence of the mediating and moderating variables with the least square method.

5) Formation of linear structure relationships of various elements that affect employee performance in the state enterprises listed on the Stock Exchange of Thailand. Finally, the model fit between the structural model from the framework and the structural model from the empirical data is reported and discussed.

3.1.2 The Qualitative Research Approach

The adoption of the qualitative and quantitative methods in this research was for the purpose of investigating the causes and reasons to support the research data obtained from the analysis of the quantitative research method performed by the researcher in the earlier stages. As for the qualitative research approach, the researcher interviewed the key informants selected from the management of the target organizations for clarification on the outcome of the correlation study, including access to qualitative data in the field of study for strategic human resource development design affecting employee performance in the state enterprises listed on the Stock Exchange of Thailand.

The qualitative research method was applied in the research in terms of content analysis in order to explain in-depth the data obtained from the analysis through the quantitative research. This was for use in determining guidelines for laying out the structure or components of strategic human resource development in order to achieve greater detailed scope and content. In addition, the qualitative data collection focused on the in-depth interviews of key informants in order to find the roles of other variables, especially the mediating and moderating variables. Both variables were expected to have statistically significant roles in the relationship of strategic human resource development and employee performance. However, the test results of the empirical data that might not be consistent with previous studies obtained in the literature review might also be explained through the qualitative data obtained from the in-depth interviews.

3.2 Target Population and Sample

3.2.1 Research Population

In this research, the study group focused on the employees of public companies listed on the Stock Exchange of Thailand, which were Thai state enterprises, consisting of four companies and the number of company employees according to the annual report submitted to the Stock Exchange of Thailand in 2020, which was a total of 17,671 individuals, as detailed below:

Table 3.1 Size of Research Population

Target Population	Number of Employees
(1) PTT Public Company Limited (PTT)	3,056
(2) Airports of Thailand Public Company Limited (AOT)	8,769
(3) MCOT Public Company Limited (MCOT)	1,350
(4) PTT Exploration and Production Public Company Limited (PTTEP)	4,496
Total	17,671

Source: The Stock Exchange of Thailand (2020).

3.2.2 Samples for the Quantitative Data Collection

SEM was implemented by the researcher for its flexibility and effectiveness as a tool for analyzing simple linear models. However, the formation of the hypotheses was essential for analysis of the model as with any other models, while the integrity of the hypotheses was confirmed through suitable and appropriate samples. Therefore, the selection of a method for determining the sample size was considered an important process in the research. Furthermore, many concepts are also being used to refer to the number of predicted variables through various approaches. For example, discussion on the determination of the sample size by Loehlin (1992), SEM analysis, which has appeared in many studies, was between 200 and 400 samples and 10 and 15 cases per observation variable. However, according to Bentler and Chou (1987), the

researcher might have the number of samples in the study lower than five cases per parameter estimation in SEM analysis for cases where AMOS analysis is applied for SEM. Comrey and Lee (1992) provided the following guidance in determining the adequacy of sample size: 100 = poor, 200 = fair, 300 = good, 500 = very good, 1,000 or more = excellent. More demanding recommendations for sample size require a minimum of 10 cases per indicator. A sample of 300 cases has also been suggested by Tabachnick and Fidell (2013). However, the rule of thumb is that the specimen sizes should exceed 200 (Boomsma & Hoogland, 2001). This is the same direction as seen in the work of Kline (2005), who suggested that more than 200 sample sizes are considered appropriate for SEM analysis using the AMOS program.

Therefore, employees of state enterprises listed on the Stock Exchange of Thailand were selected as a sample population from the discussion; the researcher considered the size under the suggestions by Comrey and Lee (1992), Tabachnick and Fidell (2013), and Kline (2005). Therefore, the target sample size for analysis in this research should not be less than 300 sample cases. In the study of the causal effect of strategic human resource development design on employee performance in the state enterprises listed on the Stock Exchange of Thailand, therefore, the researcher was required to collect at least a total of 300 samples from four target state enterprises.

The collection of the data utilized non-probability sampling by selection of the quota sampling from the population of each state enterprise, divided into equal numbers. The target samples of each state enterprise were 75 sample cases. However, the researcher sent a questionnaire to 20% more respondents than the desired sample; thus the actual field data collection should have had a total of 396 samples in order to obtain the sample data according to the specified research scope. This excess was also used as a backup for the selection of the data from specific respondents for optimum efficiency of the research analysis.

3.2.3 Samples for the Qualitative Data Collection

In this study, the researcher determined to collect qualitative data from four executives related to human resource management and administration in business functions in order to provide specific information for each state enterprise. The researcher inquired about the factors involved in the study of the influence on

employee performance in the target state enterprises in order to explain the analysis results obtained from the quantitative analysis.

3.3 Research Instruments

3.3.1 The Tool for Quantitative Research

In the quantitative research process, the researcher used questionnaires designed from the study and research of theoretical concepts, textbooks, and documents related to research involving various influencing observed variables as a tool for the collection of the data. The question types were closed-ended. The numerical rating scale was used to show the different levels.

For measuring the variables, the researcher used a 5-level Likert scale starting from Level-1 (strongly disagree) to Level-5 (strongly agree) of Bryman and Bell (2011), with the following value-weighted points:

5	means	strongly agree
4	means	agree
3	means	neither agree
2	means	disagree
1	means	strongly disagree

The scores obtained were analyzed for mean and interpreted from the mean opinions of all respondents. The scores were divided into equal intervals ranging from 1 to 5 for five ranges with a width of 0.80 points (Bryman & Bell, 2011). The criteria for interpreting the mean values in the questionnaires were as follows:

4.21 - 5.00	(very high scores)	indicates strong agreement
3.41 - 4.20	(high scores)	indicates agreement
2.61 - 3.40	(moderate scores)	indicates neither agreement nor disagreement
1.81 - 2.60	(low scores)	indicates disagreement
1.00 - 1.80	(very low scores)	indicates strong disagreement

3.3.2 The Tool for Qualitative Research

The in-depth interview method was implemented by the researcher for the collection of the qualitative data. The semi-constructed interview questions were

open-ended and pre-determined. However, as this study focused mainly on quantitative research, the results of the in-depth interview were utilized as support for the quantitative study. This qualitative approach is considered an add-on or a complement to a more complete objective study.

3.4 Construction of the Research Instruments

3.4.1 Questionnaire Design for Collection of the Quantitative Data

The researcher established steps for the formation of the questionnaire in the study according to the objectives as follows:

The initial step involved gathering concepts and theories relevant to employee performance, namely job satisfaction, employee commitment, strategic human resource development design, and the career development needs of employees, which were derived from research through academic works, research papers, and relevant theses. These were used to find the elements for each variable used in the study to lead to the search for correlations and roles in the correlation between related variables.

In the second step, the researcher determined the criteria for dividing the variables, which were obtained by compiling and grouping related theories and concepts into five constructs and 22 observed variables. As for the final step of creating a quantitative research tool, the researcher determined the scope of the study for each variable to contribute to the creation of questions and indicators for the data collection based on the study objectives.

Table 3.2 Indicators for Measuring the Research Constructs

Indicators (I) for measuring the constructs	Sources of reference
Strategic human resource development:	
Developmental context	
I-1 I have always participated in training/seminars to develop the knowledge necessary for the performance of my duties.	Adapted from Schmidt (2004) and Zulfqar, Sharif, Saeed, and Niazi (2011)
I-2 I have continuously attended training/seminars for new knowledge, which is the development of work-related skills (such as technological knowledge, language skills, etc.) to increase the efficiency of responsible work.	
I-3 I am always being tutored or given advice on how to perform my responsibilities from a supervisor or senior employee with experience in the job.	
I-4 I have learned about the work or problems that arise in the department during the performance of the organization that can be applied to work on a regular basis.	
I-5 I have been trained or have developed myself through motivating or awareness-raising activities in order to support operational efficiency.	
I-6 I have been trained or developed my own emotional intelligence and responses to others' emotions to ensure efficient cooperation.	
I-7 I have participated in organizational activities that promote participation in the development of good relationships among employees in the organization.	

Indicators (I) for measuring the constructs	Sources of reference
I-8 I have passed on the technical knowledge required to perform the work.	
I-9 I am trained to develop the managerial competencies needed to perform a job (e.g. planning, strategic decision-making, problem solving, etc.) as a supervisor or in preparation for being a supervisor.	
I-10 I have received adequate communication and description of the organization's knowledge-based work information that can be used to link strategy and performance on the job.	
I-11 Provision of in-house training can develop knowledge and the ability to meet the needs of the job duties.	
Strategic human resource development: Organizational context	
I-12 I can perceive that the organization gives importance to human resource development.	
I-13 I perceive that the organization has a concrete and sufficient budget or expenditures for human resource development in the organization.	
I-14 Supporting subordinates to develop their skills and knowledge is one of the key roles for my supervisor.	
I-15 The organization has clearly established human resource policies and plans to promote employees to develop their knowledge and capabilities.	
I-16 The supervisor or senior staff is always sharing knowledge within the work unit.	

Indicators (I) for measuring the constructs	Sources of reference
I-17 The organization encourages employees that lack the skills or expertise to keep developing.	
I-18 Appointment or promotion to a position in the organization is based on employee performance rather than on favoritism.	
I-19 I have been assessed or monitored for performance development after training through my supervisor or the human resources department.	
I-20 Strengths and weaknesses of employee performance obtained from employee performance assessments have been used to define guidelines for potential employee development.	
I-21 Supervisors are constantly updating me on my strengths and weaknesses regarding my responsible work.	
I-22 The organization has communicated and shared sufficient information on the human resource development plan for the organization's preparation.	
I-23 I am always assessed or followed up on the quality of the training or learning programs entrusted by the external training providers.	
I-24 Human resource departments distribute human resource development plans to each department to formulate sub-plans or to assign detailed information in the plans.	
I-25 My organization is involved in providing information on needs or necessities related to employee development leading to the formulation of human resource development policies in the organization.	

Indicators (I) for measuring the constructs	Sources of reference
I-26 The performance of the employee human resources departments in charge of employee development with various units in the organization goes smoothly.	
I-27 The management of the organization regularly participates in knowledge-promoting activities held within the organization.	
I-28 The human resource department has a process to provide adequate training for the development of employees' potential.	
I-29 The human resource department can justify whether to provide employee training or not.	
I-30 The supervisors in the department are passionate about encouraging employees to develop their job potential from the organization.	
I-31 My organization provides employees with opportunities to learn and develop their talents in order to keep pace with changes in work.	
I-32 My organization is planning to develop the knowledge and skills of the staff in advance, rather than engaging them for the urgent needs of the operations.	
Employee commitment: Continuance commitment	
I-33 If I have to decide to leave the organization, I will feel that it is a huge loss in life.	Adapted from Mangaleswaran
I-34 I will be very happy to work with this organization until my retirement.	(2012)
I-35 I think it is appropriate for me to continue working with this organization.	

Indicators (I) for measuring the constructs	Sources of reference
Employee commitment: Affective commitment	
I-36 If there is a problem in the organization, I feel that this is my problem as well.	
I-37 I like to talk positively to outsiders about various matters related to my organization.	
I-38 I feel that I am part of the organization.	
I-39 I feel a bond with the organization as an employer.	
I-40 I will not leave the organization at this time because I still feel attached to my colleagues in the organization.	
Employee commitment: Normative commitment	
I-41 The organization I work for has values to which I should be loyal.	
I-42 My organization makes employees willing to work toward achieving their goals.	
I-43 If I decide to leave the organization now, the work under my responsibility will be affected.	
I-44 I feel that the organization means a lot to my professional life.	
Job satisfaction: Nature of work	
I-45 I am given the opportunity to try to work of my own volition.	Adapted from Bothama (2015),
I-46 I will be able to work as per my responsibilities without feeling unethical.	Robert (2015), Terefe and Tadese (2019),
I-47 I have the opportunity to work on my own without being supervised.	and Achieng'Odembo (2013)

Indicators (I) for measuring the constructs	Sources of reference
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I-48 I have the opportunity to work or perform duties in what I do best.

I-49 The work environment is appropriate for the performance of my duties.

Job satisfaction: Compensation and benefits

I-50 The present level of remuneration and benefits motivates me to work with the organization.

I-51 I perceive that the remuneration and benefits received are fair enough compared with those of the other employees working at the same level.

I-52 My organization has a remuneration policy commensurate with employee responsibilities.

I-53 I perceive that the organization is aware of the work that employees deliver to the organization, which is reflected in the form of bonuses or other benefits.

I-54 I perceive that the level of remuneration and benefits received is in line with the duties and workload assigned.

Job satisfaction: Attitudes toward supervisors

I-55 I perceive that my supervisor is the one that has the knowledge and skills necessary to oversee the operation.

I-56 I receive advice and attention in the work for which I am responsible from my supervisor.

I-57 The management of the organization has sufficient knowledge and capability to lead the organization to achieve its goals.

Indicators (I) for measuring the constructs	Sources of reference
I-58 I am always informed of feedback on my performance from my supervisor.	
I-59 My supervisor and I have a good understanding of how to work with each other.	
Job satisfaction: Relation with co-workers	
I-60 I have been given the opportunity to assist with the work of my colleagues in the organization.	
I-61 My colleagues are very cooperative in their work.	
I-62 I often have the opportunity to guide my colleagues.	
I-63 I am willing to cooperate when my colleagues in the other departments request my help to assist with the organization's work.	
Job satisfaction: Opportunities for promotion	
I-65 I have the opportunity to progress in my career in the organization.	
I-66 My organization values and allows employees within the organization to grow in their roles.	
I-67 Employees in the organization with good performance have enough opportunities for growth in their job duties.	
Career development needs: Need for achievement	
I-68 I often set goals for challenging tasks.	
I-69 I am always looking for better or more efficient ways to work.	
I-70 I enjoy challenging work.	
I-71 Getting feedback on the work I do is extremely important to my performance.	

Indicators (I) for measuring the constructs	Sources of reference
I-72 I will do my best whether the work is rewarding and worthwhile for my needs or not.	
Career development needs: Need for power	
I-73 I can always explain or persuade my co-workers to believe my ideas.	
I-74 I feel confident when I am in control of the other co-workers' operations.	
I-75 Job opportunities are important to me.	
I-76 I enjoy having the opportunity to supervise my coworkers or work directions in the organization.	
Career development needs: Need for affiliation	
I-77 My co-workers often share problems with me at work because they feel that I can help them.	
I-78 I prefer to have lunch with my co-workers rather than alone.	
I-79 Being recognized by my organization's employees is important to me.	
Employee performance: Task performance	
I-80 My job responsibilities are always considered by my supervisor to be above the evaluation criteria.	Adapted from Koopmans et al.
I-81 I can always accomplish my work within the specified timeframe.	(2012), and Pradhan, Panda, and Jena (2017)
I-82 I understand very well the goals or results that the organization wants to achieve from the assignment.	
I-83 I can prioritize my assigned jobs well.	

Indicators (I) for measuring the constructs	Sources of reference
Employee performance: Contextual performance	
I-84 I can continue the work of others without feeling burdensome.	
I-85 I can work harder than usual or more than I need to.	
I-86 I am enthusiastic when given more challenging assignments.	
I-87 I often help my coworkers without waiting for their requests.	
I-88 I often communicate with concerned co-workers before taking action on matters that affect them.	
Employee performance: Adaptive performance	
I-89 I am able to accomplish important tasks in urgent situations.	Adapted from R. Audrey (2019)
I-90 My co-workers often ask for my opinion when a difficult situation or a new problem arises.	
I-91 My co-workers or supervisors often agree on new suggestions or solutions in my work.	
I-92 I can understand my co-workers' views in other areas to improve ways to respond to them.	
I-93 I can learn new ways to better cooperate with others.	

3.4.2 In-Depth Interview Design for the Qualitative Data Collection

Together with the analysis results through the quantitative research, the qualitative research process was conducted using the content analysis approach for the in-depth explanation of data obtained from the analysis through quantitative research. Therefore, in creating tools for collecting information from the key informants, the following steps were used to create the interviews.

First, the researcher reviewed the results of the quantitative analysis in conjunction with the research and related documents. Secondly, the researcher defined the issues so that the interviews could be designed to be relevant and cover the information needed to be used in explaining or supporting the quantitative research data. Lastly, the researcher organized and prioritized various issues to set up the interviews. At this stage, semi-structured interviews were used along with predetermined questions so that the information received from the key informants could be compared.

3.5 Evaluation of the Research Instruments

3.5.1 Quality Inspection by Experts

3.5.1.1 Questionnaire Evaluation Method

In order to control the quality of the questionnaire—the quantitative research tool, the researcher examined the quality of the entire questionnaire format and each question using various approaches to ascertain the reliability and validity as detailed below:

1) Content Validity Checking

The researcher formed the questions from relevant research and proposed them to the advisor for a preliminary review and suggestions for improvement. The researcher then prepared a quality checklist and a brief research project outline for review by three experts in terms of terminological and objective consistency, language accuracy, and suitability for use as a research tool. The experts tested the validity of the content through the index of item-objective congruence (IOC) developed by Rovinelli and Hambleton (1976) and recommended adjusting questions that might not conform to the terminology definitions or those that had a negative meaning. The verification procedure was as follows:

(1) The experts compared the structure of the variables with the questionnaire and in-depth interview questions drawn up by the researcher.

(2) The experts reviewed the questions of the measurement objectives by giving scores as follows:

1 means certain that the questions were consistent with the measurement objective.

0 means uncertain if the questions were consistent with the measurement objective.

-1 means certain that the questions were inconsistent with the measurement objective.

The score obtained from the experts was used to find the individual IOC values from the formula below:

$$IOC = \frac{\sum_{i=1}^N R}{N}$$

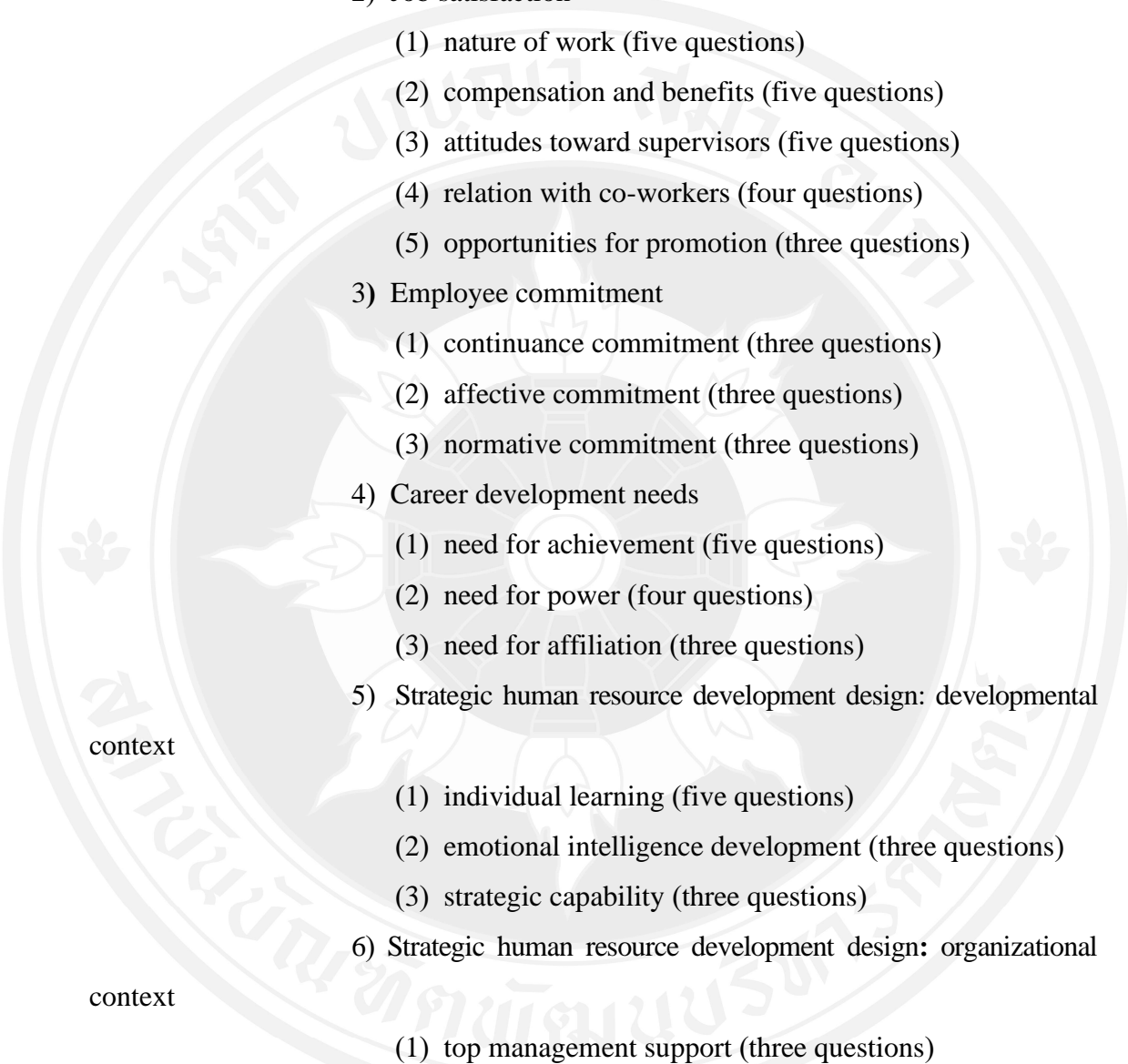
When IOC = Conformity Index Value

R = Score of each expert's opinion

N = Total number of experts

The IOC was determined according to the following criteria. If the IOC ranged from 0.50 to 1.00, the question measured or represented the objective to be measured; if it was less than 0.50, then the question did not represent the objective to be measured.

In the process of testing the quality of this tool, the researcher invited experts with direct experience related to the research content and that were skilled in measuring instruments in accordance with the statistics used in the measurement of the model in this research. The list was then sent by the School of Public Administration of the National Institute Development Administration to the experts for consideration before requesting the assistance of the experts to assist in checking the accuracy of the instrument. The researcher then delivered the research framework and questionnaire tool designed to the three experts to test the validity of the content of all of the designed questions. The questions that passed the content validity and could be used for pre-testing with the real sample consisted of the following:

- 
- 1) Employee performance
 - (1) task performance (four questions)
 - (2) contextual performance (five questions)
 - (3) adaptive performance (five questions)
 - 2) Job satisfaction
 - (1) nature of work (five questions)
 - (2) compensation and benefits (five questions)
 - (3) attitudes toward supervisors (five questions)
 - (4) relation with co-workers (four questions)
 - (5) opportunities for promotion (three questions)
 - 3) Employee commitment
 - (1) continuance commitment (three questions)
 - (2) affective commitment (three questions)
 - (3) normative commitment (three questions)
 - 4) Career development needs
 - (1) need for achievement (five questions)
 - (2) need for power (four questions)
 - (3) need for affiliation (three questions)
 - 5) Strategic human resource development design: developmental context
 - (1) individual learning (five questions)
 - (2) emotional intelligence development (three questions)
 - (3) strategic capability (three questions)
 - 6) Strategic human resource development design: organizational context
 - (1) top management support (three questions)
 - (2) HR policies and plans (five questions)
 - (3) human resource professional roles (three questions)
 - (4) supervisor involvement (six questions)
 - (5) evaluation of HRD (five questions)

3.5.1.2 Methods for Evaluating the In-Depth Interview Questions

In this study, the researcher examined the quality of the in-depth interviews by utilizing the same three experts, who examined the quantitative research tool in order to examine the questions using the IOC approach to see whether there was sufficient information covered in the research objectives. After this, the interview questionnaire was drawn up according to the recommendations from these experts and was used to collect information from the key informants as specified in this research, which was comprised of three sections as follows:

Section 1: Basic information about the key informant

Section 2: Open-ended questions on the factors related to the strategic human resource development of state enterprises listed on the Stock Exchange of Thailand, which consisted of nine key questions related to the context of human resource development activities, the creation of an environment to promote human resource development, job satisfaction, employee commitment to the organization and career development needs, and the characteristics of employees that support learning and progress

Section 3: Open-ended questions on the suggestions, problems, and obstacles in the strategic human resource development of state enterprises listed on the Stock Exchange of Thailand, which consisted of three main questions about intelligence and obstacles, while including other factors to support or accelerate the development of human resources affecting the performance of employees in the state enterprises, as well as other suggestions regarding human resource development in business organizations

3.5.2 Quality Inspection Using the Tryout Analysis

After the questionnaire passed the content validity check by the experts, the data were collected from 30 target population employees. These samples were not included in the actual participants in the process of the SEM analysis. The results of Cronbach's alpha for each construct and observed variable are presented in the Table 3.1.

Table 3.3 Reliability of the Questionnaire

Construct and observed variables	Code	No. of questions	Cronbach's alpha
Individual learning	DC1	5	.903
Emotional intelligence development	DC2	3	.933
Strategic capability development	DC3	3	.811
Developmental context: DC	DC1- DC3	11	.962
Top management support	OC1	3	.781
HRD policies and plans	OC2	5	.920
HRD professional roles	OC3	3	.801
Supervisor involvement	OC4	6	.941
Evaluation of HRD	OC5	3	.810
Organizational context: OC	OC1- OC5	20	.974
Continuance commitment	EC1	3	.783
Affective commitment	EC2	5	.921
Normative commitment	EC3	4	.847
Employee commitment: EC	EC1- EC3	12	.941
Nature of work	JS1	5	.804
Compensation and benefits	JS2	5	.881
Attitudes toward supervisors	JS3	5	.865
Relation with co-workers	JS4	4	.872
Opportunities for promotion	JS5	3	.803
Job Satisfaction: JS	JS1- JS5	22	.962
Need for achievement	CDN1	5	.894
Need for power	CDN2	4	.962
Need for affiliation	CDN3	3	.852
Career development needs: CDN	CDN1-CDN3	12	.959
Task performance	EP1	4	.910
Contextual performance	EP2	5	.809

Construct and observed variables	Code	No. of questions	Cronbach's alpha
Adaptive performance	EP3	5	.904
Employee performance: EP	EP1-EP3	14	.949

From the tryout of the target samples in order to ascertain the reliability of the questionnaire, the test results from the five constructs, the two first-order constructs of strategic human resource development—the developmental context and the organizational context—had Cronbach's alphas of 0.962 and 0.974, respectively. The other four constructs—job satisfaction, employee commitment, career development needs, and employee performance—had Cronbach's alphas of 0.894, 0.941, 0.959, and 0.949, respectively. Given the criteria of > 0.7 , all of the constructs provided high reliability with Cronbach's alphas. Therefore, the questions designed for each construct and the observed variables were suitable for further collection of data with target samples of this research.

3.5.3 Ethical Considerations by the Ethics Committee in Human Research

After evaluating the research instruments by the experts and after the tryout, the questionnaire and in-depth interview forms designed to collect the quantitative and qualitative data needed to be considered and certified by the Ethics Committee in Human Research of National Institute of Development Administration (ECNIDA) before conducting fieldwork research. In this process, the researcher prepared the research proposal and all of the instruments and submitted them to ECNIDA for consideration and approval. After obtaining certificate of approval no. 2020/0089, the researcher was ready to begin the data collection from the target samples and key informants.

In Section 3.1 to 3.5 above, the researcher explained the research design, the designation of the sample group, as well as the creation and readiness tests of the research tools, both quantitatively and qualitatively, before using them to collect the data from the target sample. In order to understand the research process, it is shown in Figure 3.1.

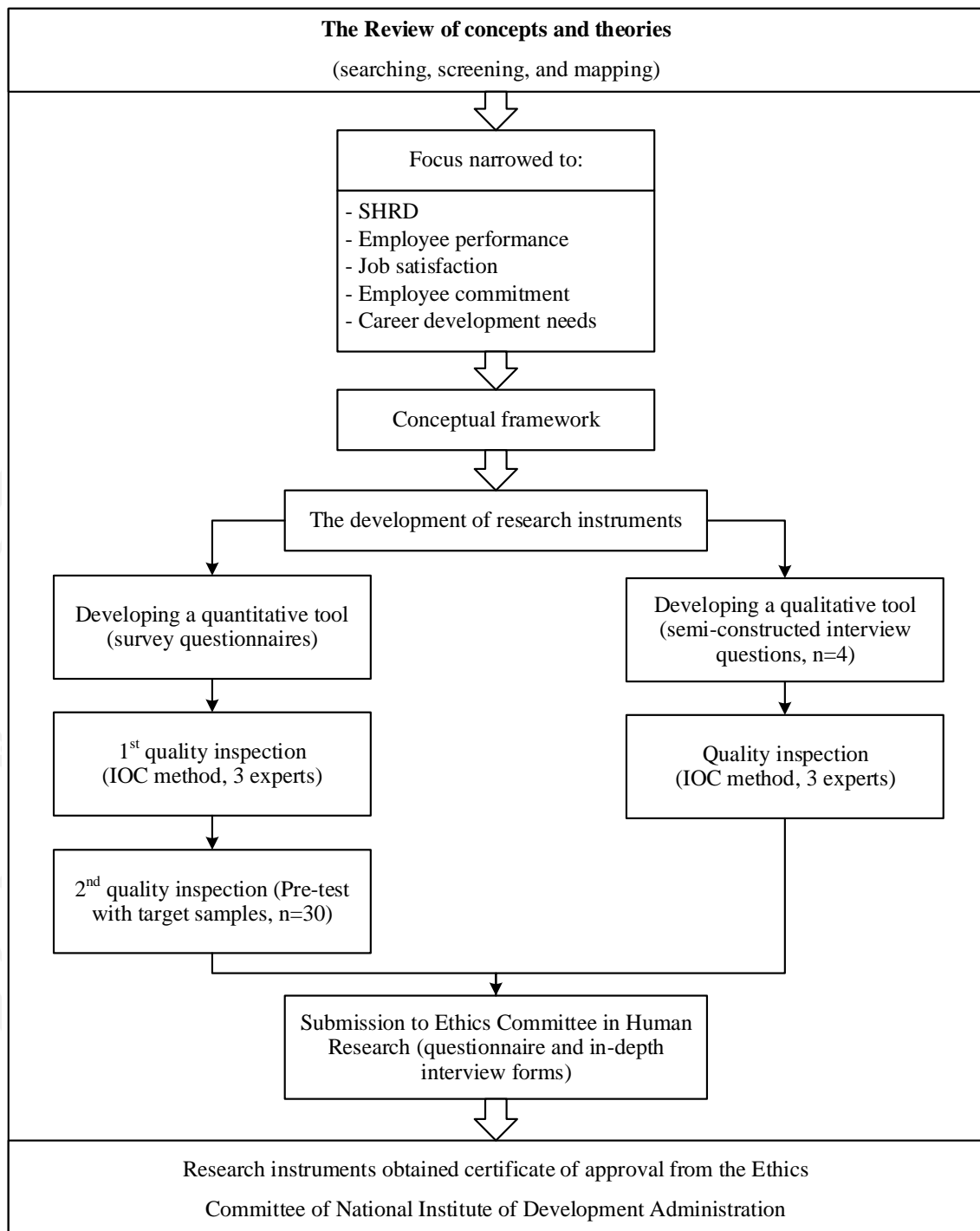


Figure 3.1 Research Design, Samples, and Instruments

3.6 Collection of Research Data

The strategy implemented for collection of the research data from the state enterprises, which were the target groups, involved letters of cooperation issued by the educational institution to the top management of these state enterprises, requesting permission for interviews with the management and collection of data from the employee population through a set number of questionnaires provided in accordance with the research plan.

3.6.1 Methods for Collecting the Quantitative Data

For the quantitative strategy, the questionnaire, along with a letter of cooperation, were provided by the School of Public Administration, National Institute of Development Administration, to the target state enterprises with an approximate two-week response time prior to further contact. However, due to the work from home policy resulting from the COVID-19 pandemic situation, additional channels, such as an online platform, was suggested by the four state enterprises for use for the submission and collection of the relevant data.

3.6.2 Methods for Collecting the Qualitative Data

In-depth interviews were applied in search of accurate information derived from the real work experience of the sample in order to expand the results of the quantitative research. For these interviews, semi-structured interview questions were used by the researcher to interview the target key informants, namely the management within the human resource or strategic management area for each of the four listed state enterprises. The interview time was approximately 50-70 minutes, including face-to-face interviews and through virtual meetings. The researcher recorded the information by note taking and sound recording for detailed analysis of the variables in the conceptual framework for accurate and quality results.

3.7 Data Analysis

The data analysis strategies selected for the synthesis of the quantitative and qualitative data collected from the samples and key informants were as follow:

3.7.1 Quantitative Data Analysis

3.7.1.1 Criteria and Guidelines for Analysis

This research determined the level of significance or the tolerance level (α) in statistical testing, with confidence levels of 95 ($\alpha = 0.05$) and 99 ($\alpha = 0.01$), and a tolerance value of 0.05 ($\alpha = 0.05$). This quantitative data analysis was divided into two parts as follows:

1) Descriptive Statistics for the Analysis of the Samples

Basic statistical testing using the SPSS program was applied for analyzing the research samples in order to determine the distribution characteristics of the sample using descriptive statistics, frequency, percentage, and the basic statistical value of constructs and observed variables designed in the conceptual framework. The purpose of this process was to explain the demographics of the respondents and the completion of the data before mapping the conceptual model with empirical evidence.

2) Inferential Statistics for the Data Analysis

In the testing of the statistical analysis, the relationship between the variables was analyzed using Pearson product–moment correlation coefficient in order to determine the linear correlation used as a basis for analyzing the linear structural equations of the latent variables in the conceptual framework and compared with the latent variables of the empirical data. This included the prevention of multiple linearity problems and outlier management. The researcher used the SEM technique through path analysis and factor analysis using the AMOS program in five steps.

Step 1: Model specification, which consisted of two sub-models: (1) the measurement model, which specified a linear relationship between the latent variables and observed variables; and (2) the structural model, which specified the relationship between the exogenous variables and the endogenous variable

- Step 2: Model identification used for confirming whether the instrument variable was equal to (just-identified), higher than (over-identified), or lower than (under-identified), the endogenous variable
- Step 3: Estimation of parameters by determining the value of unidentified parameters and errors related to the estimated value to check the raw data in order to identify any outlier data
- Step 4: Evaluation of the model through employment of goodness-of-fit to determine whether the model was fit for further analysis or if it was to be rejected (Tong, Ran, Shen, Zhang, & Xiao, 2007)
- Step 5: Modification of the model or adjustment by estimating or not estimating the parameters, which was usually complemented by implementation of statistical search strategies to determine a better fitting model, as stated by Martens (2005)

Table 3.4 Statistical Values for the Assessment of the Conformity of the Conceptual Framework with the Empirical Data

Fit indices	Criteria Description	Criteria for Confirmation	Sources of Reference
Absolute fit indices			
χ^2	Chi-square χ^2 of the discrepancy between the sample and the fitted covariance's matrices	Low value relative to degree of freedom with an insignificant p value ($p > 0.05$)	Bollen (1989); Kelloway (1998); Fan and Sivo (2005); Shamer, Mukherjee, Kumar, and Dillon (2005); Goffin (2007); Steiger (2007); Diamantopoulos and Sigauw (2000); Kaplan (2000)
χ^2/df	Relative chi-square χ^2 of the discrepancy	< 3 good	Kline (2005); Arbuckle (2013); Bollen (1989)

Fit indices	Criteria Description	Criteria for Confirmation	Sources of Reference
		< 5 permissible	Diamantopoulos and Siguaw (2000)
GFI	Goodness of fit statistic	> 0.95 good	Diamantopoulos and Siguaw (2000); Schumacker and Lomax (2010); Kelloway (1998)
		> 0.90 acceptable	Diamantopoulos and Siguaw (2000); Kelloway (1998)
AGFI	Adjusted goodness of fit statistic	> 0.95 good	Diamantopoulos and Siguaw (2000); Siguaw (2000)
		> 0.90 acceptable	Dermol (2013); Hooper, Coughlan, and Mullen (2008); Schermelleh-Engel, Moosbrugger, and Müller (2003); Schreiber, Nora, Stage, Barlow, and King (2006)
RMSEA	Root mean square error of approximation	< 0.5 good	Fan and Sivo (2005); Shamer et al. (2005)
		0.05 - 0.10 acceptable	Diamantopoulos and Siguaw (2000)
P value (PCLOSE)	Associated p value for RMSEA (test of close fit)	> 0.50	Bollen (1989); Goffin (2007); Steiger (2007); Diamantopoulos and Siguaw (2000); Schumacker and Lomax (2010); Hox (2013)
RMR	Root mean	< 0.09	Diamantopoulos and Siguaw

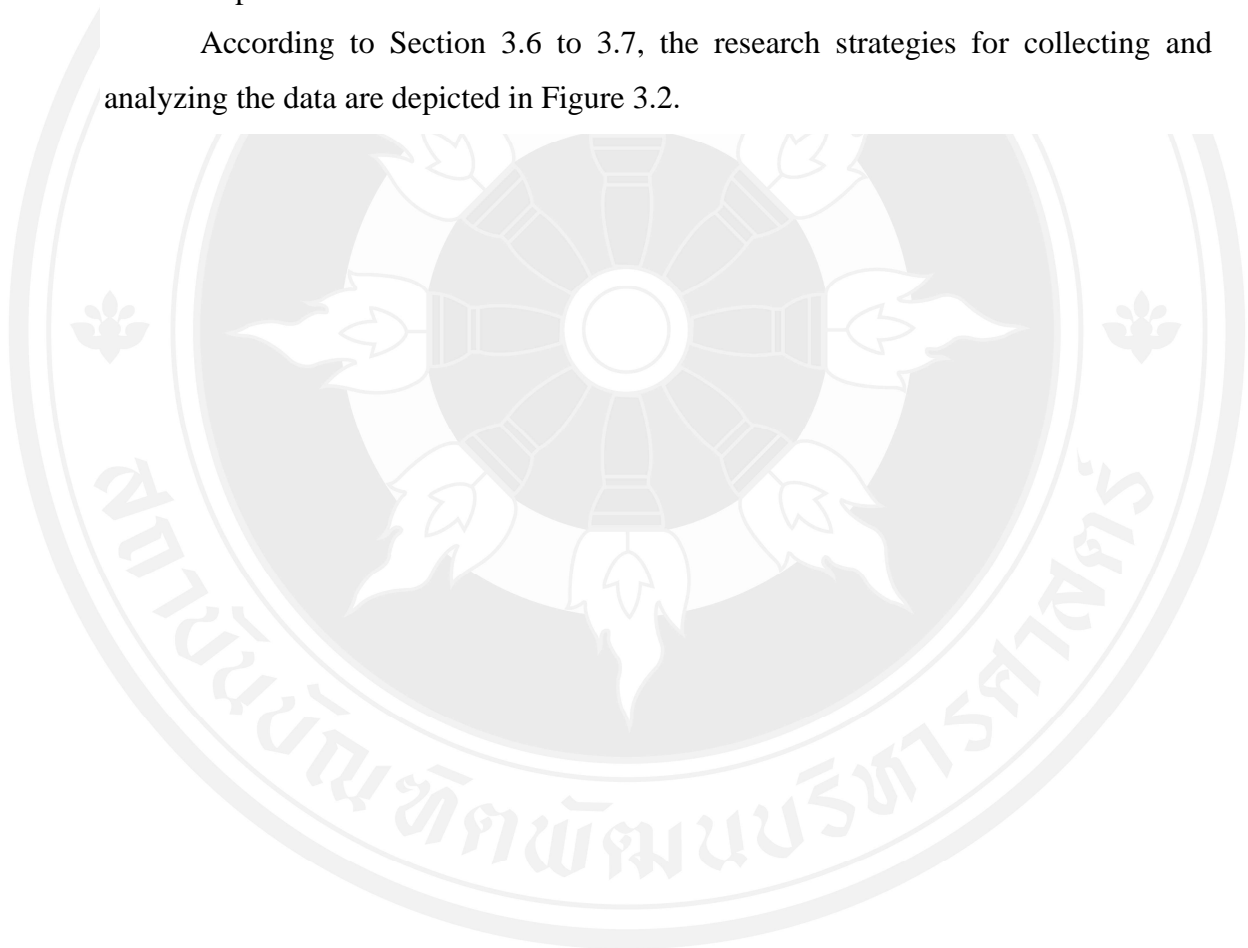
Fit indices	Criteria Description	Criteria for Confirmation	Sources of Reference
	square residual		(2000)
Incremental Fit Indices			
CFI	Comparative fit index	> 0.95 good > 0.90 acceptable	Fan and Sivo (2005); Shamer et al. (2005); Goffin (2007); Steiger (2007); Hox (2013); Schumacker and Lomax (2010); Kelloway (1998) Diamantopoulos and Siguaw (2000); Shamer et al. (2005); Goffin (2007); Kaplan (2000)
NFI	Normed fit index	> 0.95 good > 0.90 acceptable	Schumacker and Lomax (2010); Kelloway (1998) Diamantopoulos and Siguaw (2000); (Kaplan, 2000)
NNFI (TLI)	Non-normed fit index (Tucker-Lewis)	> 0.95 good > 0.80 acceptable	Bentler and Bonett (1980)
Parsimony Fit Index			
PNFI	Parsimony normed fit index	> 0.50 good	McDonald and Ho (2002)

With the criteria specified in Table 3.3, the researcher selected the appropriate criteria to be referenced as acceptable threshold levels for the analysis, decision, and reporting of the research results.

3.7.2 Qualitative Data Analysis

Once the researcher collected the qualitative data through the in-depth interviews with the executives as key informants of each of the four state enterprises, the data from the audio app recorder were grouped into research constructs, and were summarized and explained. The next step was to verify the data using triangulation by comparing and observing the correlation of the data from the key informants interviewed in order to determine if the information was accurate, related, and consistent. The researcher then presented the qualitative research results in a descriptive format.

According to Section 3.6 to 3.7, the research strategies for collecting and analyzing the data are depicted in Figure 3.2.



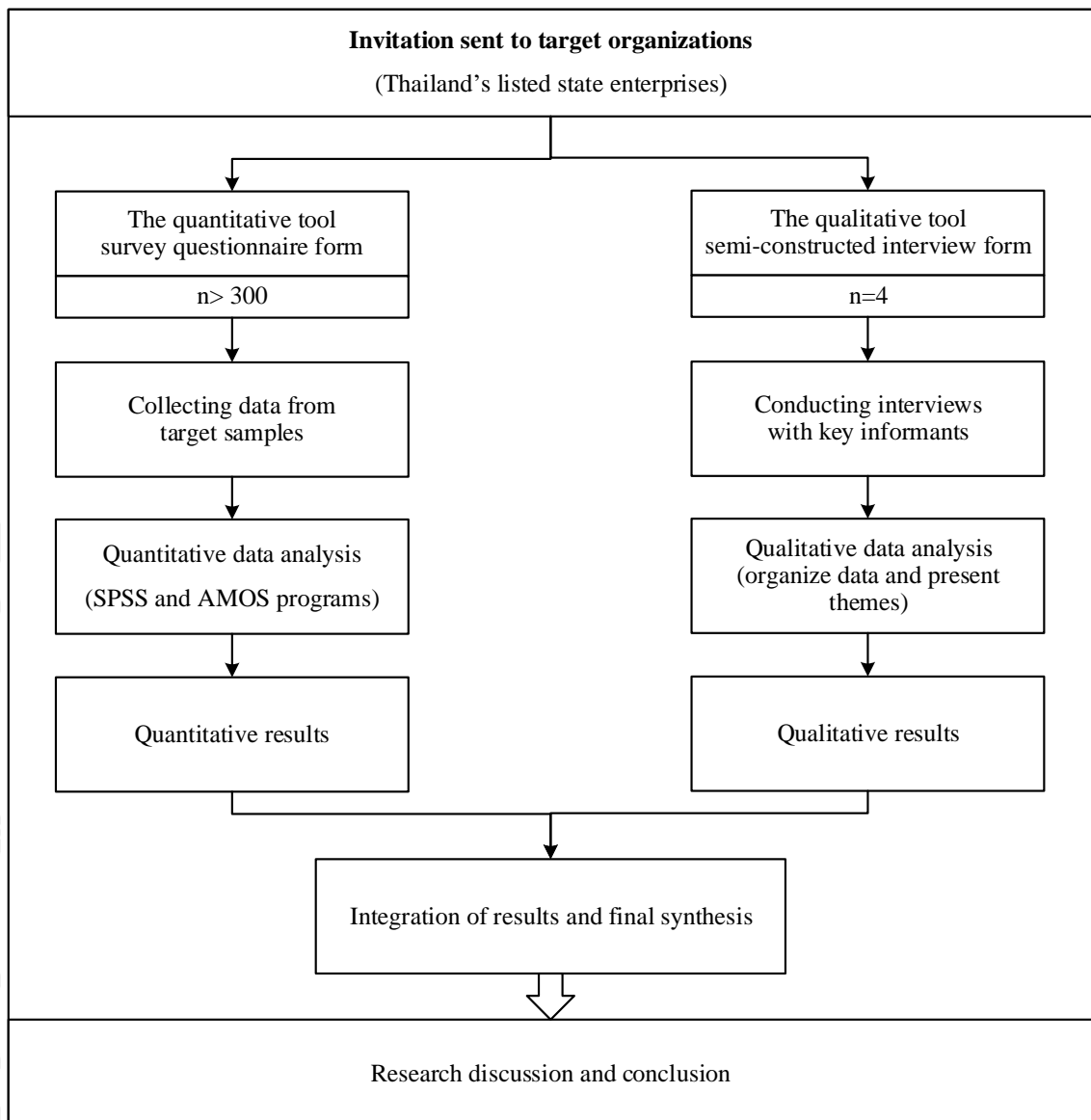


Figure 3.2 Data Collection and Analysis Processes

CHAPTER 4

DATA ANALYSIS AND RESULTS

This chapter presents the results of the current study regarding both the quantitative and qualitative research. The main purpose of the study was to investigate the relationships among strategic human resource development, job satisfaction, employee commitment, career development needs, and employee performance as constructs of the structural model obtained from literature review according to the research objectives. The samples and key informants of the study were employees and the management of state enterprises listed on the Stock Exchange of Thailand.

The analysis results of the mixed method research reported in each section are as follows:

- 1) The respondents' demographic profile (Section 4.1)
- 2) Descriptive analysis and assessment of normality (Section 4.2)
- 3) Assessment of the Measurement model (Section 4.3)
- 4) Structural equation model analysis (Section 4.4)
- 5) Hypothesis testing (Section 4.5)
- 6) Comprehensive findings from the in-depth interviews (Section 4.6)
- 7) Integrating the quantitative and qualitative results of the study (Section 4.7)

4.1 The Respondents' Demographic Profile

The respondents of the study included employees in public companies, which were state enterprises listed on the Stock Exchange of Thailand. The questionnaires were distributed in two ways: in the form of 340 documents and in the form of an online platform. The researcher received 214 questionnaires in the form of documents, representing a response rate of 63%, and received 125 sets *via* online platform questionnaires, totaling 341 responses. Considering the integrity of the

returned questionnaires, 337 sets of employees from the four state enterprises listed on the Stock Exchange of Thailand were completed for analysis. Based on the sample size criteria recommended by Kline (2015), it was found to be suitable for use in an empirical discussion of the results. They were divided into 89 employees (26.4%) from PTT Public Company Limited, 95 employees (28.2%) from Airports of Thailand Public Company Limited, 66 employees (19.6%) from MCOT Public Company Limited, and 87 employees (25.8%) from PTT Exploration and Production Public Company Limited. All of the sample data characteristics were presented as descriptive statistics with the frequency and age of the overall respondents shown in Table 4.1.

Table 4.1 Demographic Characteristics of the Sample

<i>(n = 337)</i>		
Demographic Characteristics	Frequency (<i>n</i>)	%
Gender		
Male	169	50.1
Female	168	49.9
Age		
Below 30 years	55	16.4
30-39 years	139	41.2
40-49 years	94	27.9
50 years and above	49	14.5
Educational Level		
Undergraduate or lower	42	12.5
Bachelor's degree or equivalent	146	43.3
Master's degree or higher	146	43.3
Others	3	0.9
Marital Status		
Single	180	53.4
Married	145	43.0
Divorced/widowed or separated	12	3.6

Demographic Characteristics	Frequency (n)	%
Period of employment with the organization		
Less than 5 years	90	26.7
5-10 years	97	28.8
10-15 years	77	22.8
15-20 years	40	11.9
More than 20 years	33	9.8
Job level		
Staff/Officer	229	68.0
Supervisor level	95	28.2
Management level	13	3.8
Experience in current position		
Less than 5 years	165	49.0
5-10 years	99	29.4
10-15 years	46	13.6
More than 15 years	27	8.0
Average monthly income		
Below 25,000 Baht	95	28.2
25,000 – 50,000 Baht	92	27.3
50,001 – 75,000 Baht	53	15.7
75,001 – 100,000 Baht	41	12.2
100,001 Baht or above	56	16.6

The analysis results shown in Table 4.1 represent the respondents in this study. There was a similar proportion of responses from men and women. When considering the age range of the respondents, most of the samples were 139 persons aged between 30-39 years (41.2%), followed by 94 persons between 40-49 years (27.9%), and 55 persons less than 30 years of age (16.3%). In addition, for a minority of those over 50 years, there was 49 (14.5%). For the study background of the sample, it was found that the respondents had a bachelor's degree and a higher degree in the same proportion, which was the same number of 146 persons (43.3%) and 42 persons with

lower than a bachelor's degree (12.5%). Only three persons (0.9%) had other educational qualifications. For the marital status of the respondents in this study, most of the respondents were 180 persons (53.4%), followed by 145 persons (43.3%), and only 12 persons (3.6%) were married and separated or widowed or divorced.

In relation to the work of the respondents, it was found that most of the respondents, 97 persons (28.8%), have worked in the organization for a period of 5 to 10 years, followed by 90 persons (26.7%) that have been employed fewer than 5 years (26.7%), 77 persons that have worked 10 –15 years (22.8%), 40 persons (12.8%) 15 – 20 years, and 33 persons (9.8%) over 20 years (9.8%). There were also 229 staff/officers (68.0%), followed by supervisors at 95 persons (28.2%), and a minority in management positions at 13 persons (3.8%). It was found that most of the respondents had fewer than 5 years of experience in their current position, with 165 persons (49%), followed by 99 persons (29.4%) that had work experience in their position at 5 to 10 years (29.4%), with 10 to 15 years of experience, and 46 persons at 13.6%, and only 27 persons (8 %) with greater than 15 years of experience. Finally, regarding the average monthly income of the respondents in this survey, it was found that most had an average income of not greater than 50,000 baht per month, a total of 187 persons (55.5%), followed by an average income greater than 100,000 baht per month, 56 persons (16.6 %). The average income was between 50,001 and 75,000 baht per month for 53 persons (15.7%) and an average income between 75,001 and 100,000 baht per month for 41 persons (12.2%), respectively.

4.2 Descriptive Analysis and Assessment of Normality

Based on the above analysis of the demographic data, the respondents in the state enterprises listed on the Stock Exchange of Thailand also answered a questionnaire on the five constructs studied and proposed to be the conceptual model in this research, which were strategic human resource development, job satisfaction, employee commitment, career development needs, and employee performance. The assessment was carried out on five levels, from 1 (strongly disagree) to 5 (strongly agree). Before testing the hypotheses of a study, Schumacker and Lomax (2010) suggested that data analysis with SEM is one of the areas that the researcher needs to

focus on in understanding the nature of the data. This is essential for research using structural equation modeling. Therefore, in order to understand the nature of the information collected at the preliminary stage, relevant descriptive statistical analysis was used for two key areas: (1) the use of mean (\bar{X}) and standard deviation (SD) to assess the level of perception and the opinion of employees of state enterprises listed on the Stock Exchange of Thailand; and (2) an analysis of skewness and kurtosis in order to assess the normal distribution of the data (normality) as part of the CFA discussed in the section on measurement model assessment.

In terms of normality, Hair, Black, Babin, and Anderson (2010a) defined it as the degree to which the distribution of the sample data corresponds to a normal distribution. Assessment of normality is a primary condition of SEM analysis, which is one of the techniques of inferential statistics that uses a maximum likelihood (ML) estimation method. This SEM technique has a basic assumption where each observed variable should be distributed in the normal pattern Kline (2015). Schumacker and Lomax (2010) suggested that this preliminary agreement deserves first consideration due to the irregularity of the data. The results of using inferential statistics, especially the use of the SEM technique, would result in high inaccuracies when analyzing the data. However, there have been several studies suggesting investigations for abnormalities or data abnormalities with skewness and kurtosis measurements (Kline, 2015; Schumacker & Lomax, 2010). In addition, Kline (2015) has provided criteria for determining the normal distribution of all observed variables with acceptable criteria between -3 and +3 in the case of skewness and between -10 and +10 in the case of kurtosis.

4.2.1 Descriptive Statistics for Strategic Human Resource Development

In this research, the measurement of Strategic Human Resource Development, a construct, was derived from the review of relevant literature and led to the development of two sub-components to measure the variable: developmental context and organizational context, two of which were considered first-order constructs. The developmental context construct consisted of three observed variables: individual learning (DC1), emotional intelligence development (DC2), and strategic capability development (DC3). The organizational context was comprised five observed

variables: top management support (OC1), HRD policies and plans (OC2), HRD professional roles (OC3), supervisor involvement (OC4), and evaluation of HRD (OC5). In total, there were eight observed variables. These observed variables mutually defined the SHRD construct. According to the analysis results shown in Table 4.2, the overall mean of SHRD was high ($\bar{X} = 3.675$, S.D = 0.776), which showed that the employees of the state enterprises listed on the Stock Exchange of Thailand as a whole had a high level of perception and opinions on the development and learning in the state enterprises. When considered according to the sub-components of SHRD, both the developmental context (DC) and the organizational context (OC) had a high mean ($\bar{X} = 3.656$, SD = 0.778) and ($\bar{X} = 3.685$, SD = 0.812), respectively.

When considering the mean of the individual observed variables of the developmental context (DC), it appeared that for every observed variable the employees reflected a high level of provision and arrangement of development and the supporting environment by the organization. All three observed variables were the individual learning variable having the highest mean ($\bar{X} = 3.742$, SD = 0.762), followed by the strategic capability development variable ($\bar{X} = 3.593$, SD = 0.872) and the emotional intelligence development variable ($\bar{X} = 3.578$, SD = 0.907). As for the five observed variables of the organizational context, it was found that employees perceived that the organization created an environment in various fields at all high levels. The highest assessed observed variables were top management support ($\bar{X} = 3.749$, SD = 0.846), followed by supervisor involvement ($\bar{X} = 3.742$, SD = 0.851), HRD policies and plans ($\bar{X} = 3.710$, SD = 0.858), HRD professional roles ($\bar{X} = 3.656$, SD = 0.841), and evaluation of HRD ($\bar{X} = 3.538$, SD = 0.890).

Furthermore, when considering the ranges of the skewness and kurtosis of the eight observed variables, they were acceptable (skewness range was between ± 3 ; kurtosis range was between ± 10) (Kline, 2015), which indicated that all of the observed variables had a normal distribution in accordance with the preliminary agreements of the SEM analysis so that the researcher could use the data in the next analysis step. The basic statistics of the SHRD construct are shown in Table 4.2.

Table 4.2 Mean, Standard Deviation, Skewness, and Kurtosis for Strategic Human Resource Development

Code	Constructs and observed variables	\bar{X}	SD	Skew	Kur	Level
DC	Developmental context	3.656	0.778	-.393	.030	High
DC1	Individual learning	3.742	0.762	-.399	-.055	High
DC2	Emotional intelligence development	3.593	0.872	-.436	-.233	High
DC3	Strategic capability development	3.578	0.907	-.473	.070	High
OC	Organizational context	3.685	0.812	-.525	.293	High
OC1	Top management support	3.742	0.851	-.613	.425	High
OC2	HRD policies and plans	3.656	0.841	-.586	.382	High
OC3	HRD professional roles	3.710	0.858	-.499	.197	High
OC4	Supervisor involvement	3.749	0.846	-.555	.128	High
OC5	Evaluation of HRD	3.538	0.890	-.361	.024	High
	Overall perception level	3.675	0.776	-.467	.174	High

Note: \bar{X} = Mean, SD = Standard deviation, Skew = Skewness, Kur = Kurtosis

4.2.2 Descriptive Statistics for Job Satisfaction

The job satisfaction construct is a factor where many researchers are interested in the role of the dependent variable. In this study, five observed variables were identified. The results showed that the average employee job satisfaction level was high ($\bar{X} = 3.856$, $SD = 0.638$). Next, when considering the individual observed variables, all of the variables also had a high mean, with the highest mean observed variable being relation with co-workers ($\bar{X} = 4.068$, $SD = 0.659$), followed by nature of work ($\bar{X} = 3.988$, $SD = 0.670$), attitudes toward supervisors ($\bar{X} = 3.830$, $SD = 0.778$), opportunities for promotion ($\bar{X} = 3.694$, $SD = 0.922$), and compensation and benefits ($\bar{X} = 3.680$, $SD = 0.879$). When analyzing the skewness and kurtosis of the five observed variables, it was found that all of the observed variables were between the acceptable criteria that could be used for further SEM analysis. The details of the basic statistics on the job satisfaction construct are shown in Table 4.3.

Table 4.3 Mean, Standard Deviation, Skewness, and Kurtosis of Job Satisfaction

Code	Observed variables	\bar{X}	SD	Skew	Kur	Level
JS1	Nature of work	3.988	0.670	-.378	-.386	High
JS2	Compensation and benefits	3.680	0.879	-.496	-.125	High
JS3	Attitudes toward supervisors	3.830	0.778	-.524	.249	High
JS4	Relation with co-workers	4.068	0.659	-.439	-.075	High
JS5	Opportunities for promotion	3.694	0.922	-.491	-.039	High
Overall perception level		3.856	0.638	-.084	-.605	High

Note: \bar{X} = Mean, SD = Standard deviation, Skew = Skewness, Kur = Kurtosis

4.2.3 Descriptive Statistics for Employee Commitment

The employee commitment construct was an interesting variable to be used in relation to the SHRD design in order to find its influence on employee performance. Three observed variables were identified from the literature review. The results were analyzed and it was found that employees assessed themselves to have an average high level of employee commitment ($\bar{X} = 3.903$, SD = 0.672). In addition, when the mean values of each observed variable of the EC construct were taken into account, each variable showed a high average of the results of the assessments for the three variables arranged in descending order from the mean as follows: affective commitment ($\bar{X} = 3.970$, SD = 0.658), normative commitment ($\bar{X} = 3.864$, SD = 0.738), and continuance commitment ($\bar{X} = 3.844$, SD = 0.869). When analyzing the skewness and kurtosis of the three observed variables, it was found that all of the observed variables were between the acceptable criteria that could be used for further SEM analysis. The basic statistics of the employee commitment construct are shown in Table 4.4.

Table 4.4 Mean, Standard Deviation, Skewness, and Kurtosis of Employee Commitment

Code	Observed variables	\bar{X}	SD	Skew	Kur	Level
EC1	Continuance commitment	3.844	0.869	-.481	-.249	High
EC2	Affective commitment	3.970	0.658	-.478	.378	High
EC3	Normative commitment	3.864	0.738	-.541	.332	High
Overall perception level		3.903	0.672	-.516	.033	High

Note: \bar{X} = Mean, SD = Standard deviation, Skew = Skewness, Kur = Kurtosis

4.2.4 Descriptive Statistics for Career Development Needs

Career development needs were an interesting construct in studying the influence on adjusting the relationship between variable pairs that this research aimed to study. Three observed variables were used to define this construct. The overall analysis of the respondents' CDN construct showed a high mean ($\bar{X} = 3.946$, SD = 0.605). Each observed variable was also assessed at a high level, with need for achievement ($\bar{X} = 4.001$, SD = 0.660) having the highest mean, followed by need for affiliation ($\bar{X} = 3.989$, SD = 0.655), and the need for power ($\bar{X} = 3.844$, SD = 0.707). When analyzing the skewness and kurtosis of the three observed variables, it was found that all of the observed variables were between the acceptable criteria that could be used for further SEM analysis. The basic statistics for the employee commitment construct are shown in Table 4.5.

Table 4.5 Mean, Standard Deviation, Skewness, and Kurtosis of Career Development Needs

Code	Observed variables	\bar{X}	SD	Skew	Kur	Level
CDN1	Need for achievement	4.001	0.660	-.296	-.362	High
CDN2	Need for power	3.844	0.707	-.284	-.152	High
CDN3	Need for affiliation	3.989	0.655	-.434	.129	High
Overall perception level		3.946	0.605	-.263	-.144	High

Note: \bar{X} = Mean, SD = Standard deviation, Skew = Skewness, Kur = Kurtosis

4.2.5 Descriptive Statistics for Employee Performance

Table 4.6 presents the results of the basic statistical analysis and normal assessment of the employee performance construct based on the self-assessment of employees in state enterprises listed on the Stock Exchange of Thailand. The outcome variables sought to determine how they were influenced by such causal factors as SHRD, JS, and EC. This construct was measured through three observed variables: task performance, contextual performance, and adaptive performance. The results of the analysis of the mean values of the EP construct indicated that the mean was high ($\bar{X} = 3.946$, $SD = 0.571$). All three variables were at a high level with similar averages, with task performance ($\bar{X} = 3.974$, $SD = 0.626$) having the highest mean, followed by adaptive performance ($\bar{X} = 3.938$, $SD = 0.608$), and contextual performance ($\bar{X} = 3.933$, $SD = 0.635$).

When considering the normality of the three observed variables, it appeared that the skewness and kurtosis values were within acceptable criteria. This means that the data from the three observed variables had a normal distribution and were suitable for further SEM analysis.

Table 4.6 Mean, Standard Deviation, Skewness, and Kurtosis of Employee Performance

Code	Observed variables	\bar{X}	SD	Skew	Kur	Level
EP1	Task performance	3.974	0.626	-.172	-.356	High
EP2	Contextual performance	3.933	0.635	-.049	-.369	High
EP3	Adaptive performance	3.938	0.608	-.248	.221	High
	Overall perception level	3.946	0.571	-.117	.002	High

Note: \bar{X} = Mean, SD = Standard deviation, Skew = Skewness, Kur = Kurtosis

4.2.6 Summary Results of the Descriptive Statistics of the Five Constructs

Table 4.7 presents the overall baseline statistical results of the five constructs, classifying them as one exogenous variable, one endogenous variable, two mediating variables, and one moderating variable used in the analysis according to the objectives of this research. From the preliminary analysis of the statistics above, it was found that all of the constructs had a high average. The overall mean for all of the variables was also high ($\bar{X} = 3.826$, $SD = 0.607$), and the construct was sorted in descending order of mean: employee performance (EP) ($\bar{X} = 3.946$, $SD = 0.571$), career development needs. (CDN) ($\bar{X} = 3.946$, $SD = 0.605$), employee commitment (EC) ($\bar{X} = 3.903$, $SD = 0.672$), job satisfaction (JS) ($\bar{X} = 3.856$, $SD = 0.638$), and strategic human resource development (SHRD) ($\bar{X} = 3.675$, $SD = 0.776$). In the distribution of the data, it appeared that skewness and kurtosis indicated that the data from all of the constructs were within acceptable criteria. Therefore, it can be concluded that all of the data were normally distributed, and were suitable in the form of analysis in order to find the influence of the causal factors using the SEM technique.

Table 4.7 Summary Results of the Descriptive Analysis for the Five Constructs

Construct	\bar{X}	SD	Skew	Kur	Level
1. Strategic human resource development	3.675	0.776	-0.467	.174	High
2. Job satisfaction	3.856	0.638	-0.084	-.605	High
3. Employee commitment	3.903	0.672	-0.516	.033	High
4. Career development needs	3.946	0.605	-0.263	-.144	High
5. Employee performance	3.946	0.571	-0.117	.002	High
Overall	3.826	.607	-.187	-.213	High

Note: \bar{X} = Mean, SD = Standard deviation, Skew = Skewness, Kur = Kurtosis

4.3 Assessment of the Measurement Model

After analyzing the basic data to consider the nature of the data received from the respondents, then came the model analysis process for each construct. In the first stage of the SEM analysis, according to the suggestion of Anderson and Gerbing (1988), two steps were planned for the SEM analysis: a measurement and an analysis of the structural model. For this research, each measurement model was the composition of the variables in the research conceptual framework with five constructs, which the researcher developed in order to measure each variable from the theory and concepts that appeared in the relevant literature, as mentioned in chapter 2. Therefore, the researcher used the confirmatory factor analysis, which aimed to examine each of the five measurement models in order to assess the good fit of each measurement model and all of the models as a whole to assess whether the measurement models were consistent with the empirical data and to determine the convergent validity of the measurement model (Hair, Black, Babin, & Anderson, 2014).

In the initial stage of the analysis, each measurement model was used to assess the good fit against the accepted criteria of the index used to measure the conformity between the model and the empirical data. The indices used were relative chi-square ($\chi^2/Df \leq 3.00$), the goodness of fit index (GFI) ≥ 0.90 , the adjusted goodness of fit index (AGFI) ≥ 0.90 , the comparative fit index (CFI) ≥ 0.90 , the Tucker-Lewis index (TLI) ≥ 0.90 , root mean square error of approximation (RMSEA) < 0.07 , and standardized root mean square residual (RMR) < 0.08 (Hair et al., 2014; Schumacker & Lomax, 2010). For any measurement model that did not fit the data, model modification would be considered for the elimination of the observed variables with factor loadings less than 0.50 (Hair, Black, Babin, & Anderson, 2010b) and/or the measurement error was correlated. This could be improved by considering the modification indices (MI). Model improvements would be made until the specified model was found to fit the empirical data.

After improvement until the measurement model was consistent with the empirical data, the next process was to consider the reliability and convergent validity based on Cronbach's alpha analysis, which defines a general threshold of not less than

0.70 to describe the internal consistency of the questions representing the measure of the observed variables defined in each construct according to the conceptual model of this research.

In addition, convergent validity was another metric that had to be reviewed as it is an index used that measures validity with constructs that theoretically should be related. It also defines the variance of a construct measured with the observed variables to see how many of all the observed variables in that construct can be used to measure the variance of that construct (Schumacker & Lomax, 2010). The convergent validity assessment consisted of the composite reliability (CR) and average variance extracted (AVE) values that Hair et al. (2014) had proposed. The acceptable criterion for CR was not less than 0.70 and the acceptable criterion for AVE was not less than 0.50 when all five measurement models were validated and updated for validity and reliability and modified until the model was consistent with the empirical data. The model had a confidence level and convergent validity that met all of the criteria. All measurement models were then tested to determine the correlation between the five measurement models before proceeding to the next step. This was the process of analyzing the structural model and testing the research hypotheses.

In this study, a second-order CFA construct was used to examine the measurement model of the SHRD construct, which characterized the measurement model as a higher-order construct and observed variables that were indicators of SHRD derived from the first-order constructs and other measurement models in the structural equation model. Other constructs, which were JS, EC, CDN, and EP, were derived from the observed variables, which were metrics assessed by the first-order CFA construct. The analysis results will be presented later.

4.3.1 Measurement Model of Strategic Human Resource Development

4.3.1.1 Assessment of Measurement Model Fit for Strategic Human Resource Development

The use of second-order CFA in structural equation modeling in assessing the SHRD construct whose structure is called a higher-order construct consists of two first-order constructs: the developmental context construct and the

organizational context construct. It has three observed variables and five observed variables. The initial first-order SHRD measurement model showed the fit indices of the model, indicating that all of the observed variables had a factor loading greater than 0.50 for all of the variables. However, the model test results were inconsistent with the empirical data ($\chi^2/Df = 3.727$, GFI = 0.948, AGFI = 0.902, CFI = 0.986, TLI = 0.979, RMSEA = 0.090, RMR = 0.012). The researcher, therefore, had to improve the model based on the proposed MI index. The MI was the highest if the measurement error was adjusted to correlate. The results showed that this measurement model was very consistent with the empirical data ($\chi^2/Df = 2.621$, GFI = 0.965, AGFI = 0.926, CFI = 0.992, TLI = 0.988, RMSEA = 0.069, RMR = 0.012). The results are shown in Figure 4.1 and Table 4.8.

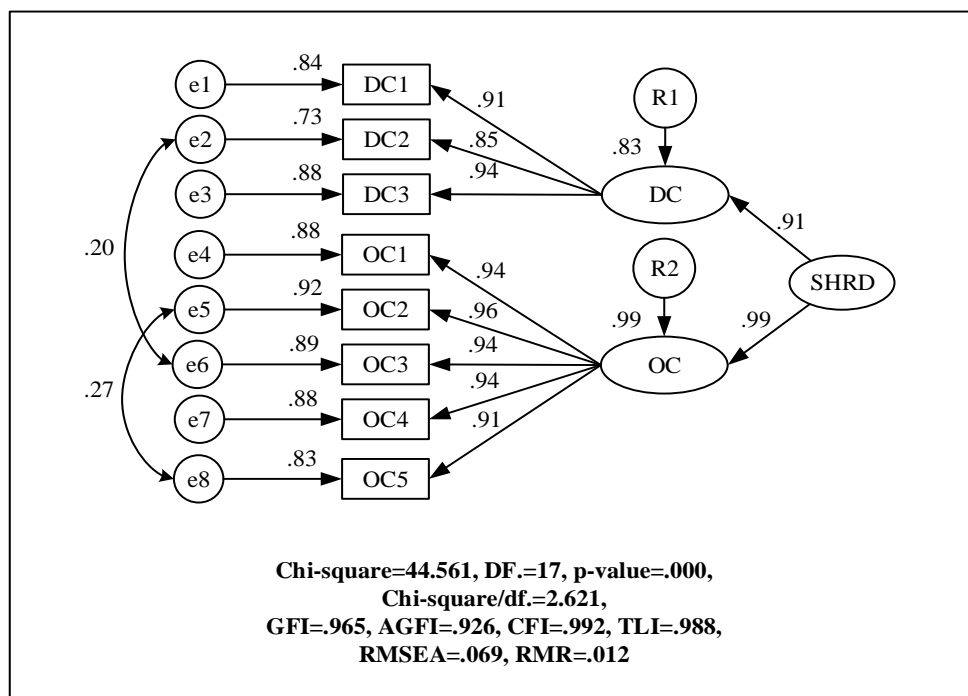


Figure 4.1 Modified Measurement Model of Strategic Human Resource Development

Note: SHRD = strategic human resource development, DC = developmental context, OC = organizational context, DC1 = individual learning, DC2 = emotional intelligence development, DC3 = strategic capability development, OC1 = top management support, OC2 = HRD policies and plans, OC3 = HRD professional roles, OC4 = supervisor involvement, and OC5 = evaluation of HRD, e = error, R = residual

Table 4.8 Results of Goodness of Fit Indices of the SHRD Model

SHRD Model	Criteria	Initial	Final	Results
Chi-square (χ^2)	-	70.81	44.561	-
Degree of freedom (Df)	-	19	17	-
Probability value (P-Value)	-	0	0	-
Chi-squares/Degree of freedom (χ^2 /Df)	≤ 3.00	3.727	2.621	Passed
Goodness fit index (GFI)	≥ 0.90	0.948	0.965	Passed
Adjusted goodness fit index (AGFI)	≥ 0.90	0.902	0.926	Passed
Comparative fit index (CFI)	≥ 0.90	0.986	0.992	Passed
Tucker-Lewis index (TLI)	≥ 0.90	0.979	0.988	Passed
Root mean square error of approximation (RMSEA)	≤ 0.07	0.09	0.069	Passed
Root mean square residual (RMR)	≤ 0.08	0.012	0.012	Passed

4.3.1.2 Assessment of the Reliability and Convergent Validity for the SHRD Model

Table 4.9 presents the standardized factor loading (β) and t-value (t-test) of each observed variable to represent the weight distribution to the constructs, the construct reliability, and convergent validity of the SHRD construct. The analysis results of Figure 4.1 and Table 4.9 show that the SHRD construct consists of a sub-component, a first-order DC construct, and an OC construct, which were statistically significant. The standardized factor loading of the DC construct and OC construct was 0.909 and 0.993, respectively. Next, considering the observed variables of the DC construct, it comprised three observed variables, where the standardized factor loadings were found between 0.855 and 0.937 and all of the variables were statistically significant. The subsequent analysis was the first-order OC construct, consisting of the five observed variables with standardized factor loading between 0.912 and 0.958, which were statistically significant across all variables. The results showed that the measurement model of the higher-order SHRD construct had a standardized factor loading greater than 0.50, as suggested by Hair et al. (2010b).

In addition, when considering Cronbach's alpha coefficient of the DC and OC constructs, which were sub-components of the SHRD construct, it was found to be between 0.946 and 0.980, which met the criteria of being not less than 0.70. The analysis showed that the observed variables in each construct had an appropriate intercorrelation. The convergent validity, based on composite reliability, indicated that the three constructs were between 0.929 and 0.973, which was no less than 0.70 as recommended. Furthermore, the average variance extracted ranged from 0.814 to 0.906, which was not less than 0.50 based on the recommended threshold value. Therefore, it was concluded that the measurement model of the SHRD constructs was consistent with the empirical data. It was a measurement model of the DC and OC constructs, which consisted of the observed variables that could represent the higher-order SHRD construct.

Table 4.9 Results of the Second-Order CFA for the Modified SHRD Model

Constructs		Standardized factor loading (β)	t-value	CR	AVE
Strategic HRD (SHRD) ($\alpha = .980$)				.951	.906
Developmental context (DC) ($\alpha = .946$)		.909	-	.929	.814
DC1	Individual learning	.914			
DC2	Emotional intelligence development	.855	23.379		
DC3	Strategic capability development	.937	29.440		
Organizational context (OC) ($\alpha = .975$)		.993	11.350	.973	.878
OC1	Top management support	.936			
OC2	HRD policies and plans	.958	37.234		
OC3	HRD professional roles	.941	34.525		

Constructs		Standardized factor loading (β)	t-value	CR	AVE
OC4	Supervisor involvement	.938	34.055		
OC5	Evaluation of HRD	.912	27.324		

Note: All of the items were significant at $p > 0.001$, the paths of DC, DC1, and OC1 were fixed to 1 (not estimated). CR = construct reliability or composite reliability, AVE = average variance extracted

4.3.2 First-Order CFA for the Model of Job Satisfaction

4.3.2.1 Assessment of Measurement Model Fit for Job Satisfaction

First-order CFA was used to assess the job satisfaction constructs, which consisted of the five observed variables: nature of work, compensation and benefits, attitudes toward supervisors, relation with co-workers, and opportunities for promotion.

For the initial stage assessment of the measurement model analysis of the JS construct, the fit indices of the model indicated that all of the observed variables had a standardized factor loading greater than 0.50 for all of the variables, but the results of this stage showed that the model did not fit the empirical data ($\chi^2/Df = 6.403$, GFI = 0.962, AGFI = 0.885, CFI = 0.968, TLI = 0.935, RMSEA = 0.127, RMR = 0.021). Therefore, the model had to be revised based on the MI index that presented the highest MI value if measurement tolerances were adjusted to correlate. The researcher created two pairs of observed variables, and there was a correlation between them. The results showed that the measurement model was very consistent with the empirical data ($\chi^2/Df = 1.701$, GFI = 0.994, AGFI = 0.970, CFI = 0.997, TLI = 0.992, RMSEA = 0.046, RMR = 0.008), as shown in Figure 4.2 and Table 4.10.

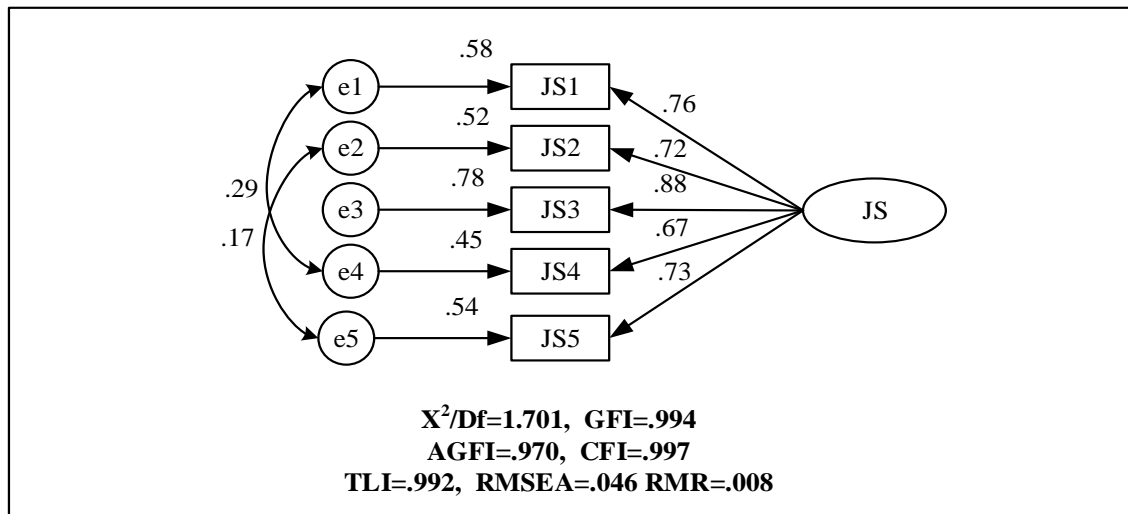


Figure 4.2 Modified Measurement Model of Job Satisfaction

Note: JS = job satisfaction, JS1 = nature of work, JS2 = compensation and benefits, JS3 = attitudes toward supervisors, JS4 = relation with co-workers, JS5 = opportunities for promotion

Table 4.10 Results of Goodness of Fit Indices of the JS Model

JS Model	Criteria	Initial	Final	Results
Chi-square (χ^2)	-	32.017	5.102	-
Degree of freedom (Df)	-	5	3	-
Probability value (P-Value)	-	0	0.164	-
Chi-squares/Degree of freedom (χ^2/Df)	≤ 3.00	6.403	1.701	Passed
Goodness fit index (GFI)	≥ 0.90	0.962	0.994	Passed
Adjusted goodness fit index (AGFI)	≥ 0.90	0.885	0.97	Passed
Comparative fit index (CFI)	≥ 0.90	0.968	0.997	Passed
Tucker-Lewis index (TLI)	≥ 0.90	0.935	0.992	Passed
Root mean square error of approximation (RMSEA)	≤ 0.07	0.127	0.046	Passed
Root mean square residual (RMR)	≤ 0.08	0.021	0.008	Passed

4.3.2.2 Assessment of the Reliability and Convergent Validity for the JS Model

Table 4.11 presents the standardized factor loading (β) and t-value (t-test) of each observed variable in order to represent the weight distribution of the constructs as well as the presentation of construct reliability and convergent validity of the JS construct. The analysis results of Figure 4.2 and Table 4.11 show that the JS construct contained five observed variables, all of which had values and standardized factor loadings between 0.673 and 0.883, and all of the variables were statistically significant. This indicated that the measurement model of the JS construct had a standardized factor loading greater than 0.50, as suggested by Hair et al. (2010b). In addition, when considering Cronbach's alpha coefficient of the JS construct, it was found to be 0.951, which satisfied the criteria of being not less than 0.70, meaning that the observed variables to define the JS construct had an appropriate intercorrelation, and convergent validity was checked, based on composite reliability; it was found to have a value of 0.869, which was not less than 0.70, as recommended. Next, when considering the average variance extracted, it was found that 0.573 was not less than the recommended 0.50 threshold. Therefore, it can be concluded that the measurement model of the JS construct was a model that corresponded to the empirical data and was composed of observed variables that represented the JS construct.

Table 4.11 Results of the First-Order CFA for the Modified JS Model

Construct		Standardized factor loading (β)	t-value	CR	AVE
Job satisfaction (JS) ($\alpha = .951$)				.869	.573
JS1	Nature of work	.761	-		
JS2	Compensation and benefits	.722	12.765		
JS3	Attitudes toward supervisors	.883	15.024		
JS4	Relation with co-workers	.673	14.243		

		Standardized		
	Construct	factor	t-value	CR
		loading (β)		AVE
JS5	Opportunities for promotion	.731	12.957	

Note: All items were significant at $p > 0.001$, the path JS1 was fixed to 1 (not estimated), CR = construct reliability or composite reliability, AVE = average variance extracted

4.3.3 First-Order CFA for the Model of Employee Commitment

4.3.3.1 Assessment of Measurement Model Fit for Employee Commitment

First-order CFA was used to assess the employee commitment construct, which consisted of three observed variables: continuance commitment, affective commitment, and normative commitment.

For the initial assessment of the measurement model analysis of the EC construct, the fit indices of the model indicated that all of the observed variables had a standardized factor loading greater than 0.50 for all of the variables, The results of this stage also showed that the model fit the empirical data ($\chi^2/Df = 1.675$, GFI = 0.997, AGFI = 0.980, CFI = 0.999, TLI = 0.997, RMSEA = 0.045, RMR = 0.039). Therefore, the model had no need to be modified, as shown in Figure 4.3 and Table 4.12.

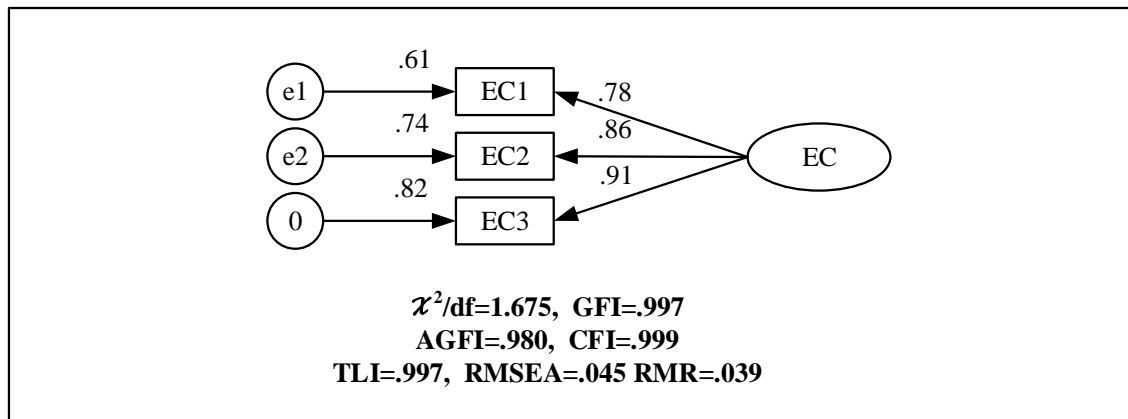


Figure 4.3 Measurement Model of Employee Commitment

Note: EC = employee commitment, EC1 = continuance commitment, EC2 = affective commitment, EC3 = normative commitment

Table 4.12 Results of Goodness of Fit Indices of the EC Model

EC Model	Criteria	Initial	Results
Chi-square (χ^2)	-	1.675	-
Degree of freedom (Df)	-	1	-
Probability value (P-Value)	-	0.196	-
Chi-squares/Degree of freedom (χ^2/Df)	≤ 3.00	1.675	Passed
Goodness fit index (GFI)	≥ 0.90	0.997	Passed
Adjusted goodness fit index (AGFI)	≥ 0.90	0.98	Passed
Comparative fit index (CFI)	≥ 0.90	0.999	Passed
Tucker-Lewis index (TLI)	≥ 0.90	0.997	Passed
Root mean square error of approximation (RMSEA)	≤ 0.07	0.045	Passed
Root mean square residual (RMR)	≤ 0.08	0.039	Passed

4.3.3.2 Assessment of Reliability and Convergent Validity for EC Model

Table 4.13 presents the standardized factor loading (β) and t-value (t-test) of each observed variable in order to represent the weight distribution of the

EC construct as well as the presentation of construct reliability and convergent validity of the EC construct. The analysis results of Figure 4.3 and Table 4.13 show that the EC construct contained three observed variables, all of which had values and standardized factor loadings between 0.780 – 0.908, and all of the variables were statistically significant. This indicated that the measurement model of the EC construct had a standardized factor loading greater than 0.50 as suggested by Hair et al. (2010b). In addition, when considering Cronbach's alpha coefficient of the EC construct, it was found to be 0.929, which satisfied the criteria of being not less than 0.70. This meant that observed variables used to define the EC construct had an appropriate intercorrelation, and convergent validity was checked based on composite reliability. It was found to have a value of 0.889, which was not less than 0.70, as recommended. Next, when considering the average variance extracted, it was found that 0.728 was not less than the recommended 0.50 threshold. Therefore, it can be concluded that the measurement model of the EC construct was a model that corresponded to the empirical data and was composed of observed variables that represented the EC construct well.

Table 4.13 Results of the First-Order CFA for the EC Model

Construct		Standardized factor loading (β)	<i>t</i> -value	CR	AVE
Employee commitment (EC) ($\alpha = .929$)				.888	.725
EC1	Continuance commitment	.780	-		
EC2	Affective commitment	.863	21.174		
EC3	Normative commitment	.908	22.690		

Note: All of the items were significant at $p > 0.001$, the path EC1 was fixed to 1 (not estimated), CR = construct reliability or composite reliability, AVE = average variance extracted

4.3.4 First-Order CFA for the Model of Career Development Needs

4.3.4.1 Assessment of Measurement Model Fit for Career Development Needs

First-order CFA was used to assess career development needs, and this construct consisted of three observed variables: need for achievement, need for power, and need for affiliation.

For the initial stage assessment of the measurement model analysis of the CDN construct, the fit indices of the model indicated that all of the observed variables had a standardized factor loading greater than 0.50 for all of the variables. The results of this stage also showed that the model fit the empirical data ($\chi^2/Df = 1.931$, GFI = 0.996, AGFI = 0.977, CFI = 0.998, TLI = 0.994, RMSEA = 0.053, RMR = 0.034). Therefore, the model had no need to be modified, as shown in Figure 4.4 and Table 4.14.

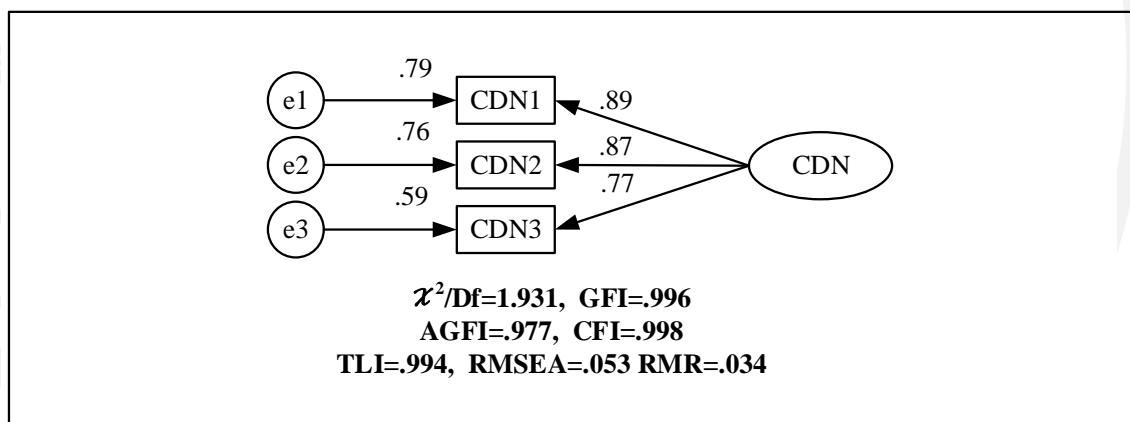


Figure 4.4 Measurement Model of Career Development Needs

Note: CDN = career development needs, CDN1 = need for achievement, CDN2 = need for power, CDN3 = need for affiliation

Table 4.14 Results of Goodness of Fit Indices of the CDN Model

CDN Model	Criteria	Initial	Results
Chi-square (χ^2)	-	1.931	-
Degree of freedom (Df)	-	1	-
Probability value (P-Value)	-	0.165	-
Chi-square/Degree of freedom (χ^2/Df)	≤ 3.00	1.931	Passed
Goodness fit index (GFI)	≥ 0.90	0.996	Passed
Adjusted goodness fit index (AGFI)	≥ 0.90	0.977	Passed
Comparative fit index (CFI)	≥ 0.90	0.998	Passed
Tucker-Lewis index (TLI)	≥ 0.90	0.994	Passed
Root mean square error of approximation (RMSEA)	≤ 0.07	0.053	Passed
Root mean square residual (RMR)	≤ 0.08	0.034	Passed

4.3.4.2 Assessment of Reliability and Convergent Validity for the CDN Model

Table 4.15 presents the standardized factor loading (β) and t-value (t-test) of each observed variable in order to represent the weight distribution of the CDN construct as well as the presentation of the construct reliability and convergent validity of the CDN construct. The analysis results of Figure 4.4 and Table 4.15 show that the CDN construct contained three observed variables, all of which had values and standardized factor loadings between 0.766 and 0.890, and all of the variables were statistically significant. This indicated that the measurement model of the CDN constructs had a standardized factor loading greater than 0.50, as suggested by Hair et al. (2010). In addition, when considering Cronbach's alpha coefficient of the CDN construct, it was found to be 0.924, which satisfied the criteria of being not less than 0.70. This meant that observed variables used to define the CDN construct had an appropriate intercorrelation, and convergent validity was checked based on composite reliability; it was found to have a value of 0.881, which was not less than 0.70 as recommended. In addition, when considering the average variance extracted, it was found that 0.713 was not less than the recommended 0.50 threshold. Therefore, it can

be concluded that the measurement model of the CDN construct was a model that corresponded to the empirical data and was composed of observed variables that represented the CDN construct well.

Table 4.15 Results of the First-Order CFA for the CDN Model

Construct		Standardized factor loading (β)	<i>t</i> -value	CR	AVE
Career development needs (CDN) ($\alpha = .924$)				.881	.713
CDN1	Need for achievement	.890	-		
CDN2	Need for power	.872	21.337		
CDN3	Need for affiliation	.766	17.684		

Note: All of the items were significant at $p > 0.001$, the path CDN1 was fixed to 1 (not estimated), CR = construct reliability or composite reliability, AVE = average variance extracted

4.3.5 First-Order CFA for the Model of Employee Performance

4.3.5.1 Assessment of Measurement Model Fit for Employee Performance

First-order CFA was used to assess the employee performance construct, which consisted of three observed variables: task performance, contextual performance, and adaptive performance. For the initial stage assessment of the measurement model analysis of the EP construct, the fit indices of the model indicated that all of the observed variables had a standardized factor loading greater than 0.50 for all of the variables. The results of this stage also showed that the model fit the empirical data ($\chi^2/Df = 2.311$, GFI = 0.995, AGFI = 0.973, CFI = 0.998, TLI = 0.994, RMSEA = 0.062, RMR = 0.035), as shown in Figure 4.5 and Table 4.16.

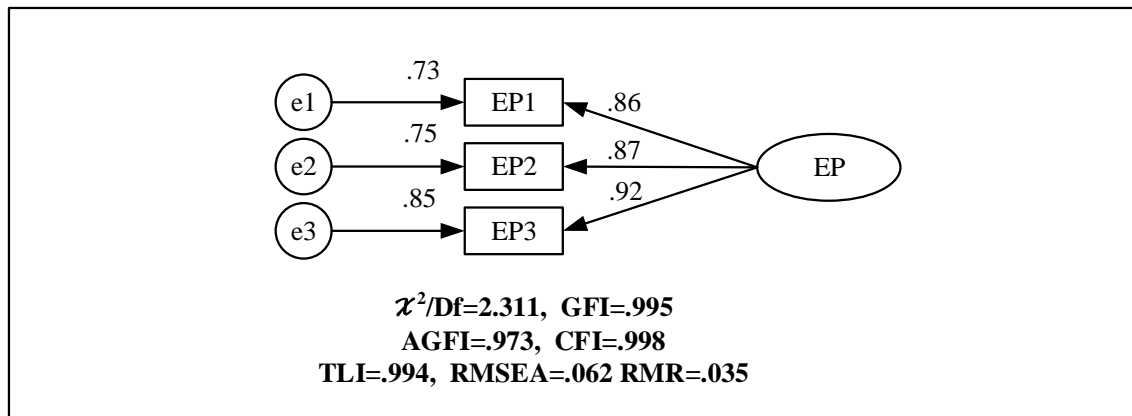


Figure 4.5 Measurement Model of Employee Performance

Note: EP = employee performance, EP1= task performance, EP2 = contextual performance, EP3 = adaptive performance

Table 4.16 Results of Goodness of Fit Indices of the EP Model

EP Model	Criteria	Initial	Results
Chi-square (χ^2)	-	2.311	-
Degree of freedom (Df)	-	1	-
Probability value (P-Value)	-	0.128	-
Chi-square/Degree of freedom (χ^2/Df)	≤ 3.00	2.311	Passed
Goodness fit index (GFI)	≥ 0.90	0.995	Passed
Adjusted goodness fit index (AGFI)	≥ 0.90	0.973	Passed
Comparative fit index (CFI)	≥ 0.90	0.998	Passed
Tucker-Lewis index (TLI)	≥ 0.90	0.994	Passed
Root mean square error of approximation (RMSEA)	≤ 0.07	0.062	Passed
Root mean square residual (RMR)	≤ 0.08	0.035	Passed

4.3.5.2 Assessment of Reliability and Convergent Validity for the EP Model

Table 4.17 presents the standardized factor loading (β) and t-value (t-test) of each observed variable in order to represent the weight distribution to the constructs as well as the presentation of construct reliability and convergent validity

of the EP construct. The analysis results of Figure 4.5 and Table 4.17 show that the EP construct contained three observed variables, all of which had values and standardized factor loadings between 0.856 and 0.924, and all of the variables were statistically significant. This indicated that the measurement model of the EP construct had a standardized factor loading greater than 0.50 as suggested by Hair et al. (2010b). In addition, when considering Cronbach's alpha coefficient of the EP construct, it was found to be 0.950, which satisfied the criteria of not being less than 0.70. This meant that the observed variables used to define the EP construct had an appropriate intercorrelation, and convergent validity was checked based on composite reliability; it was found to have a value of 0.914, which was not less than 0.70 as recommended. In addition, when considering the average variance extracted, it was found that 0.921 was not less than the recommended 0.50 threshold. Therefore, it can be concluded that the measurement model of the EP constructs was a model that corresponded to the empirical data and was composed of observed variables that represented the EP construct well.

Table 4.17 Results of the First-Order CFA for the EP Model

Construct		Standardized factor loading (β)	<i>t</i> -value	CR	AVE
Employee performance (EP) ($\alpha = .950$)				.914	.921
EP1	Task performance	.856	-		
EP2	Contextual performance	.866	23.248		
EP3	Adaptive performance	.924	26.171		

Note: All of the items were significant at $p > 0.001$, the path EP1 was fixed to 1 (not estimated), CR = construct reliability or composite reliability, AVE = average variance extracted

4.3.6 Overall Measurement Model

4.3.6.1 Assessment for the Goodness of fit of the Overall Measurement Model

The SEM analysis in this study consisted of five measurement models: SHRD, JS, EC, CDN, and EP. It was found that all measurement models had 22 observed variables according to the conceptual model and were tested all at once in the initial analysis stage in order to determine the relationship among the constructs. It was found that the overall measurement models were inconsistent with the empirical data ($\chi^2/Df = 3.280$, GFI = .845, AGFI = .804, CFI = .943, TLI = .934, RMSEA = .082, RMR = .030), although the composition weight of all the observed variables was greater than 0.50. Thus, the researcher revised the models based on the MI indices, which suggested an increase in the relationship between the measurement error of each pair of observed variables for the strongest correlation and re-run 39 times until the overall measurement models were consistent with the empirical data ($\chi^2/Df = 1.496$, GFI = .937, AGFI = .902, CFI = .990, TLI = .986, RMSEA = .038, RMR = .022), as shown in Figure 4.6 and Table 4.18.



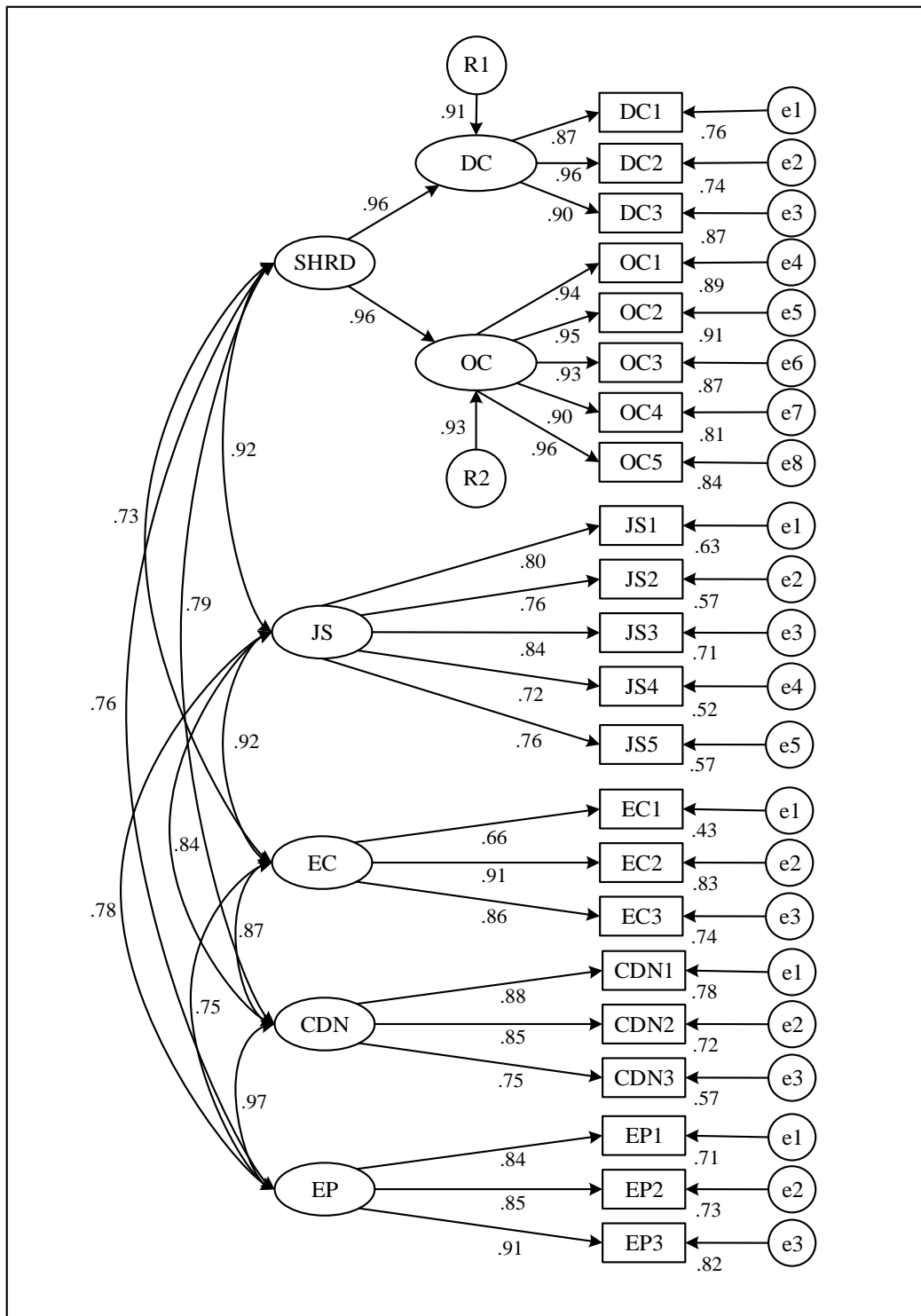


Figure 4.6 Overall Measurement Model for the Research Constructs

Table 4.18 Results of the Goodness of Fit Indices for the Final Measurement Model

Overall Model	Criteria	Initial	Final	Results
Chi-square (χ^2)	-	656.92	243.82	-
Degree of freedom (Df)	-	200	163	-
Probability value (P-Value)	-	0	0	-
Chi-square/Degree of freedom (χ^2/Df)	≤ 3.00	3.28	1.496	Passed
Goodness fit index (GFI)	≥ 0.90	0.845	0.937	Passed
Adjusted goodness fit index (AGFI)	≥ 0.90	0.804	0.902	Passed
Comparative fit index (CFI)	≥ 0.90	0.943	0.99	Passed
Tucker-Lewis index (TLI)	≥ 0.90	0.934	0.986	Passed
Root mean square error of approximation (RMSEA)	≤ 0.07	0.082	0.038	Passed

4.3.6.2 Assessment of the Reliability and Convergent Validity of the Measurement Model

The summary results of the overall measurement model analysis are shown in Table 19, which presents the standardized factor loading of all the variables and they were found to be greater than 0.50, as suggested by Hair et al. (2010b). Cronbach's alpha coefficient of all the measurement scales ranged from 0.929 to 0.980, which was higher than the threshold (> 0.70). The convergent validity of all the measurement models measured using composite reliability also appeared between 0.856 and 0.972, which was above the threshold of 0.70. Moreover, the average extracted variance was between 0.603 and 0.912, which was above the threshold of 0.50 according to Fornell and Larcker (1981) and Hair et al. (2010b).

Table 4.19 Results of the Reliability and Convergent Validity of the Measurement Model

Constructs		Standardized factor loading (β)	t-value	CR	AVE
Strategic HRD (SHRD) ($\alpha = .980$)				.959	.912
Developmental context (DC) ($\alpha = .946$)		.939	-	.928	.813
DC1	Individual learning	.913	-		
DC2	Emotional intelligence development	.865	36.847		
DC3	Strategic capability development	.926	34.328		
Organizational context (OC) ($\alpha = .975$)		.971	21.247	.972	.877
OC1	Top management support	.934	-		
OC2	HRD policies and plans	.957	36.847		
OC3	HRD professional roles	.941	34.328		
OC4	Supervisor involvement	.940	34.247		
OC5	Evaluation of HRD	.911	27.525		
Job Satisfaction (JS) ($\alpha = .951$)				.883	.603
JS1	Nature of work	.805	-		
JS2	Compensation and benefits	.761	15.913		
JS3	Attitudes toward supervisors	.839	17.945		
JS4	Relation with co-workers	.716	14.872		
JS5	Opportunities for promotion	.757	14.336		
Employee Commitment (EC) ($\alpha = .929$)				.856	.669
EC1	Continuance commitment	.662	-		
EC2	Affective commitment	.912	14.597		
EC3	Normative commitment	.859	15.765		
Career Development Needs (CDN) ($\alpha = .932$)				.869	.689
CDN1	Need for achievement	.884	-		
CDN2	Need for power	.851	21.815		
CDN3	Need for affiliation	.750	17.406		

Constructs		Standardized factor loading (β)	t-value	CR	AVE
Employee Performance (EP) ($\alpha = .950$)				.902	.754
EP1	Task performance	.842	-		
EP2	Contextual performance	.855	19.868		
EP3	Adaptive performance	.907	22.129		

Note: All of the items were significant at $P > 0.001$, the paths of DC, DC1, JS1, EC1, CDN1, and EP1 were fixed to 1 (not estimated), α = Cronbach's alpha coefficient, CR = construct reliability or composite reliability, AVE = average variance extracted

4.3.6.3 Assessment of the Correlation Matrix Among the Five Constructs

The conceptual model of this research consisted of five constructs, with two constructs acting as mediators, namely the JS and EC constructs, and one construct acting as a moderator, namely the CDN construct. Among these constructs, the SHRD construct acted as an exogenous variable and the EP construct acted as an endogenous variable. As a result, the discriminant validity check with greater-than-less value analysis of the square root of AVE did not require validation (Gaskin & Lim, 2016). Importantly, an assessment of the research construct played a role in helping the researcher understand the relationship among the constructs before analyzing the structural model and further testing the research hypotheses.

The results shown in Table 4.20 and Figure 4.6 indicated a positive relationship between the five constructs, and there was a statistically significant correlation in all relationship partners. The correlation coefficients ranged from 0.728 to 0.972, with the pair of SHRD and EC having the lowest correlation coefficient and the pair of CDN and EP having the highest correlation coefficient. The test values indicated that the correlation between constructs was very high.

Table 4.20 Correlation Matrix Among the Research Constructs

Constructs	Mean	SD	SHRD	JS	EC	CDN	EP
SHRD	3.675	0.776	1.00				
JS	3.856	0.638	.923**	1.00			
EC	3.903	0.672	.728**	.912**	1.00		
CDN	3.946	0.605	.782**	.861**	.360**	1.00	
EP	3.938	0.608	.750**	.775**	.745**	.972**	1.00

Note: $n = 337$, SD = standard deviation, SHRD = strategic human resource development, JS = job satisfaction, EC = employee commitment, CDN = career development needs, EP = employee performance, AVE = average variance extracted

4.4 Structural Model Analysis

After measurement analysis was carried out in Section 4.4, in which the researcher proceeded in accordance with the analysis procedure set out by Anderson and Gerbing (1988), this second step assessed the conformity between the structural model from the literature review and the model from the empirical data.

Furthermore, prior to this analysis, the quality of the research sample was tested by the researcher through the outlier detection of unusual values of all the participants. Particularly, outliers can be regarded as observations that lie apart from the majority of data points (Chatterjee & Hadi, 1986; Stevens, 1984), that can cause serious problems in statistical analysis. Therefore, for the efficiency and concurrence of the analysis results used as representative of the population, the researcher made selections on the parameter using measurement of the Mahalanobis distance as an effective distance metric, which finds the distance between points and the distribution of the multivariate data. From the analysis results, it was found that 17 outlier sample cases used in the analysis had significant distance from the centroid, and as such for credibility of the analysis the outliers were left out, leaving 320 qualified sample cases for analysis of the structural model, which coincided with the guideline outlines of

Kline (2005) and Tabachnick and Fidell (2013), making it possible for use of these samples in the analysis of the structural model.

4.4.1 Assessment for Goodness-of-Fit of the Structural Model

The research conceptual framework comprised the following: (1) SHRD (higher-order construct) made up of two constructs (sub-components): the DC construct (three observed variables) and the OC construct (five observed variables); (2) the JS construct (five observed variables); (3) the EC construct (three observed variables); (4) the CDN construct (three observed variables); and (5) the EP construct (three observed variables). For this research, SHRD was regarded as an endogenous variable, with JS and EC constructs acting as mediators and the CDN construct acting as a moderator.

From utilizing the data of the 320 qualified samples in the model analysis, it was found that the discrepancy of variables had a relation in accordance with the MI index, and made a modification for a total of 41 pairs of indicators until the model was consistent according to empirical data as per the acceptable index criteria ($\chi^2/df = 1.105$, GFI = .965, AGFI = 0.936, CFI = 0.998, TLI = 0.997, RMSEA = 0.018, RMR = 0.011) (Hair et al., 2014; Schumacker & Lomax, 2010).

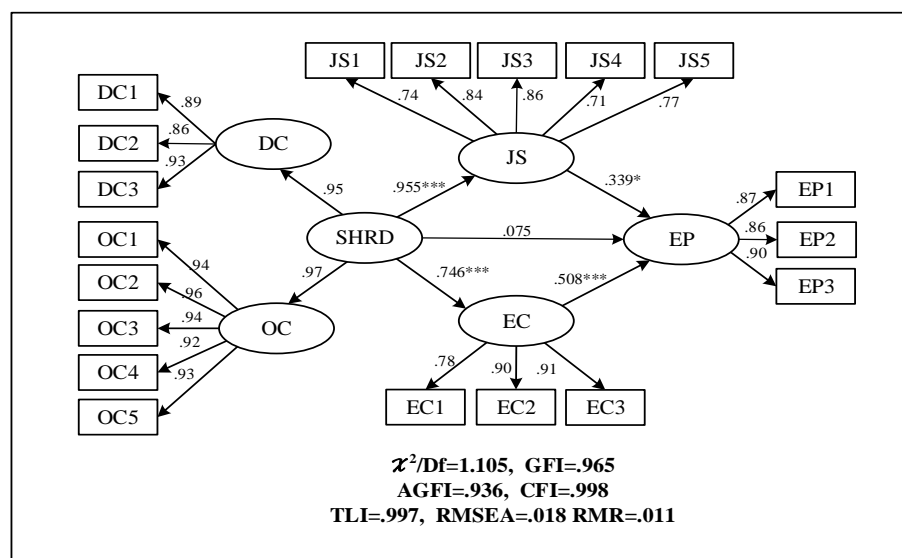


Figure 4.7 The Structural Model of the Study

Note: * $p < 0.05$, *** $p < 0.001$, β = standardized estimates or path coefficient, SMC = square multiple correlation

Table 4.21 Results of Goodness of Fit Indices for the Structural Model

Overall model	Criteria	Initial	Final	Results
Chi-square (χ^2)	-	598.97	114.937	-
Degree of freedom (Df)	-	145	104	-
Probability value (P-Value)	-	0	0.218	-
Chi-square/Degree of freedom (χ^2 /Df)	≤ 3.00	4.131	1.105	Passed
Goodness fit index (GFI)	≥ 0.90	0.833	0.965	Passed
Adjusted goodness fit index (AGFI)	≥ 0.90	0.782	0.936	Passed
Comparative fit index (CFI)	≥ 0.90	0.934	0.998	Passed
Tucker-Lewis index (TLI)	≥ 0.90	0.922	0.997	Passed
Root mean square error of approximation (RMSEA)	≤ 0.07	0.097	0.018	Passed
Root mean square residual (RMR)	≤ 0.08	0.028	0.011	Passed

4.5 Hypothesis Testing

The key aim of this research was to investigate the influence of the SHRD construct on the EP construct, both directly and indirectly, with two mediating variables, the JS and EC constructs. In addition, the influence of CDN construct on the role of moderating variables of SHRD, JS, and EC constructs affecting the EP construct was also to be investigated. The influence estimation according to the conceptual framework of this research was based on the maximum likelihood method (ML) and Figure 4.8 is a simplified model with only four constructs for testing hypotheses 1 to 5 presented in Section 4.5.1 and the JS and EC constructs' mediating role tests are presented in Section 4.5.2. The summation of the influence of the causal variables on the endogenous variable is presented in Section 4.5.3 and the testing of the CDN construct's moderating role is presented next in Figure 4.9 in Section 4.5.4.

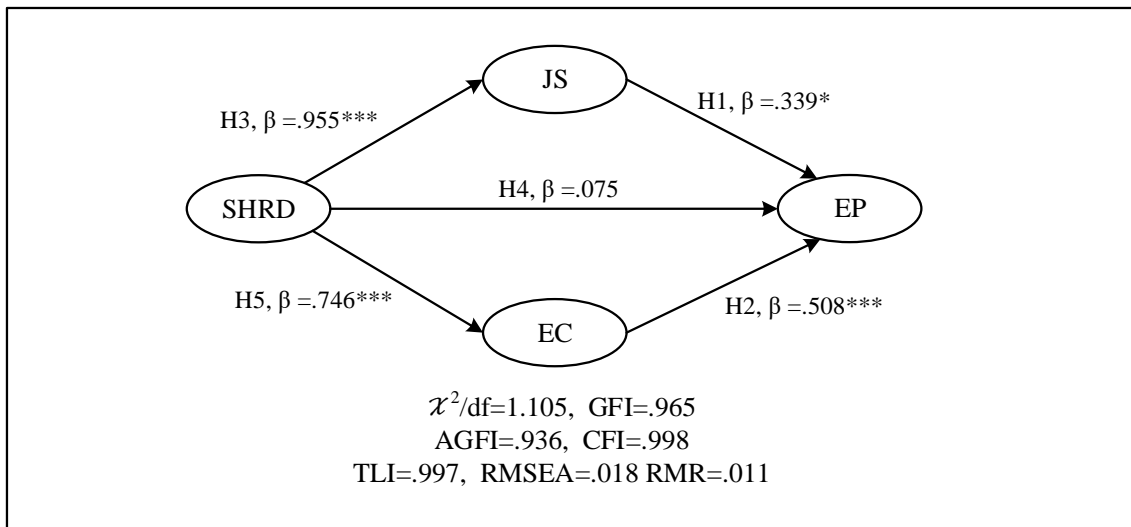


Figure 4.8 Testing Results with the Standardized Estimates of Hypotheses 1 to 5

Note: * $p < 0.05$, *** $p < 0.001$, β = standardized estimates or path coefficient,
 SMC = square multiple correlation

4.5.1 Hypothesis Testing of the Direct Effect: H1 to H5

As for testing hypotheses 1 to 5, they are shown in Figure 4.8 and Table 4.22.

Hypothesis 1:

Job satisfaction has a significant and positive effect on employee performance in the state enterprises listed on the Stock Exchange of Thailand.

Regarding the test of the hypothesis that job satisfaction positively affects employee performance in the state enterprises listed on the Stock Exchange of Thailand, the path coefficient (β) of the JS construct, one of the causal variables affecting the EP construct, was $\beta = 0.339$ (t-test = 1.974, p-value < 0.05). This hypothesis indicated that the JS construct positively influenced the EP construct at a statistically significant 0.05 level, thus confirming that employees with higher job satisfaction also will exhibit higher performance.

Hypothesis 2:

Employee commitment has a significant and positive effect on employee performance in the state enterprises listed on the Stock Exchange of Thailand.

Next, the test of the hypothesis that employee commitment is a causal variable that positively affects employee performance in the state enterprises listed on the Stock Exchange of Thailand. The path coefficient from the EC construct to the EP construct was $\beta = 0.508$ (t-test = 7.815, p-value < .001). The result of the sample data provided sufficient evidence that this research hypothesis suggested a positive influence of the EC construct on the EP construct and was statistically significant at the 0.001 level, thereby confirming that employees with higher commitment will also exhibit high performance.

Hypothesis 3:

Strategic human resource development design has a significant and positive effect on employees' job satisfaction in the state enterprises listed on the Stock Exchange of Thailand.

Regarding the test of the hypothesis that strategic human resource development design has a positive effect on the job satisfaction of employees in the state enterprises listed on the Stock Exchange of Thailand, the path coefficient (β) from the SHRD construct to the JS construct was 0.955 (t-test = 15.573, p-value < 0.001). The positive influence of the JS construct was statistically significant at the 0.001 level, thus confirming that employees that perceived that the state enterprise provides a high SHRD has a highly positive effect on them in terms of job satisfaction.

Hypothesis 4:

Strategic human resource development design has a significant and positive effect on employee performance in the state enterprises listed on the Stock Exchange of Thailand.

In addition, this research hypothesis determined that employee performance in the state enterprises listed on the Stock Exchange of Thailand received positive results from the designed strategic human resource development as a causal variable. Based on the sample data analysis, the structural model in Figure 4.8 indicated that the path coefficient (β) from the SHRD construct to the EP construct was 0.075 (t-test = 0.408, p-value > 0.05). This shows that there was insufficient evidence to accept that this research hypothesis was true, implying that the SHRD construct had a statistically insignificant positive influence on EP construct. Alternatively, the level of employees'

SHRD exposure did not directly influence the EP construct. Hence, it was interesting how the designed SHRD influenced employee performance in the state enterprises, after which the answer would be sought.

Hypothesis 5:

Strategic human resource development design has a significant and positive effect on employee commitment in the state enterprises listed on the Stock Exchange of Thailand.

According to hypothesis 5, strategic human resource development was a causal variable that positively affected the employee commitment of employees in the companies listed on the Stock Exchange of Thailand. The structural model in Figure 4.8 indicated that the path coefficient (β) from the SHRD construct to the EC construct was 0.746 (t -test = 13.361, p -value < 0.001), which showed that there was sufficient evidence to accept that this hypothesis indicated that the SHRD construct positively influenced the EC construct at a statistically significant 0.001 level, thereby confirming that an employee with high perceived SHRD had a very positive impact on his or her commitment to the organization.

Table 4.22 Summary Results of Hypothesis Testing for H1 to H5

Hypotheses	β	b	SE	t-value	p-value	Results
H1 JS → EP	0.339	0.377	0.191	1.974*	.048	Supported
H2 EC → EP	0.508	0.418	0.054	7.815***	.000	Supported
H3 SHRD → JS	0.955	0.598	0.038	15.573***	.000	Supported
H4 SHRD → EP	0.075	0.052	0.128	0.408 ^{ns}	.683	Rejected
H5 SHRD → EC	0.746	0.632	0.047	13.361***	.000	Supported

Note: $n = 320$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed), ns = not significant, β = standardized path coefficient, b = unstandardized coefficient, SE = standard error, SHRD = strategic human resource development, JS = job satisfaction, EC = employee commitment, CDN = career development needs

4.5.2 Hypothesis Testing for the Mediating Role of JS and EC: H6 to H7

In addition to testing hypotheses 1 to 5 above, the research objectives were also to study the influence of job satisfaction and employee commitment in the mediating role of the relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand in relation to the following hypotheses.

Hypothesis 6:

Job satisfaction significantly mediates the relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

Hypothesis 7:

Employee commitment significantly mediates the relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

In order to test the influence of the mediating variables, Baron and Kenny (1986) published in their academic paper a method of testing. This was a traditional test approach based on a method developed by Sobel (1982) that used the path coefficient as a raw score (unstandardized regression estimate: B) with the standard error of the coefficient (SE) for calculating the Z test statistic according to the following formula:

$$z\text{-value} = a*b/\text{SQRT}(b^2*SE_a^2 + a^2*SE_b^2 + SE_a^2*SE_b^2)$$

where a is unstandardized regression estimate between the independent variable and mediator.

b is unstandardized regression estimate between mediator and dependent variable.

SE_a is the standard error (SE) of a .

SE_b is the standard error (SE) of b .

For the analysis of the role of the mediator, the researcher used a program developed by Preacher and Leonardelli (2001). The results of testing the influence of the JS and EC constructs as mediators according to Zobel's method are shown in Figure 4.8 and Table 4.22. It clearly demonstrates that JS and EC are constructs that act as full mediators between the SHRD construct and EP construct, also known as full mediation. They are called as such because R. M. Baron and Kenny (1986) had suggested that the path estimation between an independent variable and a dependent variable is not statistically significant, while the path between the independent variable to a mediator and the path between a mediator to a dependent variable *are* statistically significant. This is called full mediation. However, if all paths from an independent variable to the dependent variable, an independent variable to a mediator and a mediator to a dependent variable, are all significant, this would be called a mediator playing the role of partial mediation.

As described by R. M. Baron and Kenny (1986), and from the results of hypothesis 4, the SHRD construct to the EP construct was not statistically significant, but the SHRD construct to the JS construct, the SHRD construct to the EC construct, the JS construct to the EP construct, and the EC construct to the EP construct were all statistically significant. Thus, the role of the JS and EC constructs can be summarized as the full mediation of the designed SHRD that influences the EP construct itself.

As mentioned in the test of hypothesis 4, although it was found that the SHRD construct had no significant positive influence on the EP construct or the SHRD construct did not directly influence the EP construct, the results at this stage showed that the designed SHRD was an influencing variable on the EP construct by indirectly affecting it through the mediating variables, which in this study were the JS and EC constructs. The results of hypothesis testing are presented in Figure 4.9.

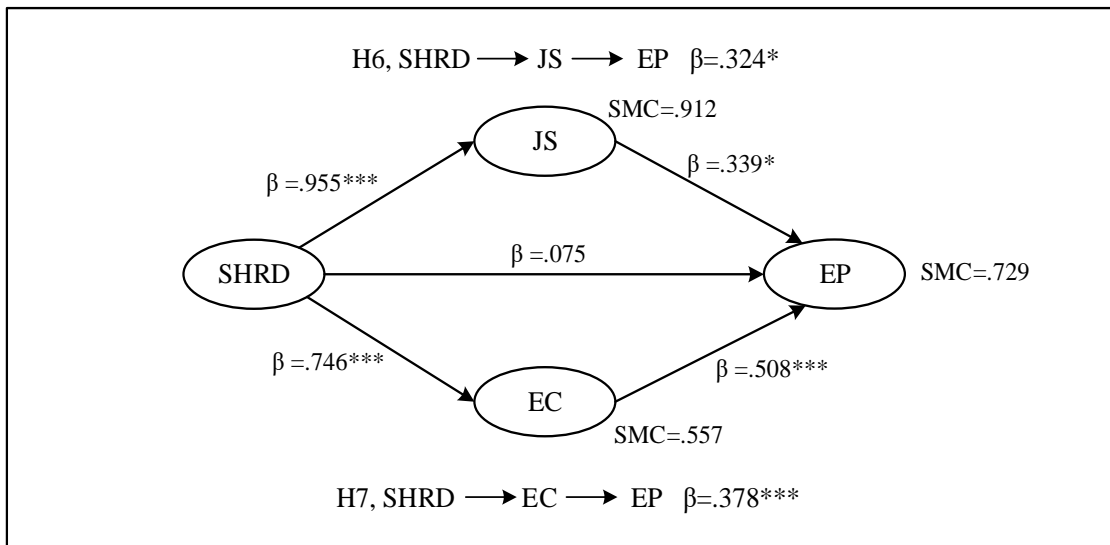


Figure 4.9 Testing Results with the Standardized Estimates of Hypotheses 6 to 7

4.5.2.1 Indirect Effect of SHRD on Employee Performance Through Job Satisfaction

According to hypothesis 6, job satisfaction significantly mediates the relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand. The results of these calculations indicated a path coefficient of 0.324 in the indirect effect of the JS construct. In comparison to the coefficient value of the direct path between the SHRD construct and the EP construct, the coefficient value of the indirect path was larger ($0.324 > 0.052$), as shown in Figure 4.10.

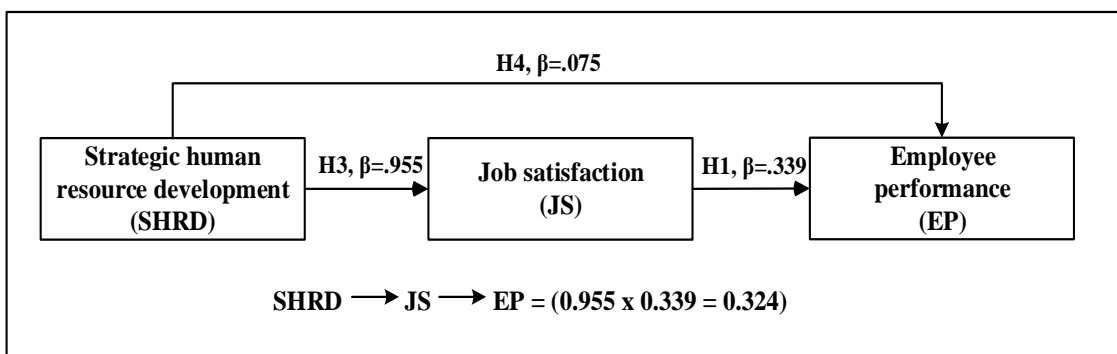


Figure 4.10 Indirect Effect of SHRD on Employee Performance Through Job Satisfaction

Figure 4.10 shows that the JS construct can play a mediating role in the designed SHRD on EP. The results of the comparison between the coefficient values show that the coefficient value of the indirect path is higher than for the direct path, thereby confirming that the JS fully mediated the effect of the designed SHRD on EP.

4.5.2.2 Indirect Effect of SHRD on Employee Performance Through Employee Commitment

According to hypothesis 7, employee commitment significantly mediates the relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand. The results of these calculations indicated a path coefficient of 0.378 in the indirect effect of the EC construct. In comparison with the coefficient value of the direct path between the SHRD construct and the EP construct, the coefficient value of the indirect path was larger ($0.378 > 0.052$), as shown in Figure 4.11.

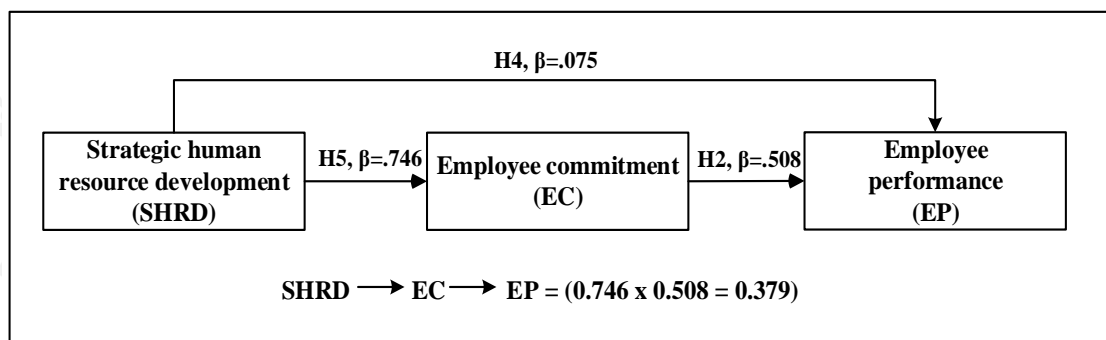


Figure 4.11 Indirect Effect of SHRD on Employee Performance Through Employee Commitment

Figure 4.11 shows that the EC construct can play a mediating role of the designed SHRD construct on EP construct. The results of the comparison between coefficient values showed that the coefficient value of the indirect path was higher than for the direct path, thereby confirming that EC fully mediated the effect of the SHRD construct on the EP construct

Table 4.23 Summary Results of the Mediating Effect Testing for H6 to H7

Mediating effects of JS and EC	Standard indirect effects	Sobel test Z-values	p-value	Results
SHRD → JS → EP	.324	1.962*	.049	Supported (Full mediation)
SHRD → EC → EP	.378	6.723***	.000	Supported (Full mediation)

Note: $n = 320$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed), SHRD = strategic human resource development, JS = job satisfaction, EC = employee commitment, EP = employee performance

4.5.3 Summary of Direct Effect, Indirect Effect, and Total Effect

After conducting the tests of research hypotheses 1 to 5 and testing the mediating influences, the results were summarized and classified into the direct effect (DE), indirect effect (IE), and overall influence (total effect: TE) of each causal variable on the EP construct, which was a dependent variable in this research. The results are shown in Table 24. The results of separating the influences of the causal variables into different parts revealed that the SHRD construct had no statistically significant direct influence on the EP construct, but had a significant indirect influence on the EP construct. It was found to be statistically significant at the 0.05 level and the 0.01 level on the EP construct. It was also found to be the causal variable that had the highest positive influence on the EP construct. While the EC construct was a statistically significant variable affecting EP construct at the 0.001 level, it had the second highest positive total effect after the SHRD construct, and the JS construct had a statistical direct total effect at the 0.001 significant level and had the third highest total effect after the SHRD construct and EC construct.

In addition, for the SMC or square multiple correlation, which was the coefficient that predicted the variance of the causal variable toward the dependent variable, it was found that the SHRD construct could be used to predict the variance of the JS construct by 91.2% (SMC = 0.912) and predicted the variance of the EC construct by 55.7% (SMC = 0.557), while the causal variables of SHRD, JS, and EC

co-predicted the variance of the EP construct by 72.9% (SMC = 0.729), as shown in Figure 4.8.

Table 4.24 Summary of Direct Effect, Indirect Effect, and Total Effect

EP	Causal variables		
	SHRD	JS	EC
DE	.075 ^{ns}	.339***	.508***
IE	.702*	-	-
TE	.777**	.339***	.508***

Note: *p-Value<.05, **P-Value<.01, ***P-Value<.001, DE = direct effect, IE = indirect effect, TE = total effect, ns = not significant, SHRD = strategic human resource development, JS = job satisfaction, and EC = employee commitment, EP = employee performance

4.5.4 Hypothesis Testing for the Moderating Role of CDN: H8 to H10

Next, in order to test the influence of the CDN construct as a moderating variable, the researcher included the CDN construct in the structural equation model in the form of an interaction variable with the SHRD, JS, and EC constructs, as shown in Figure 4.12 and Table 4.25.

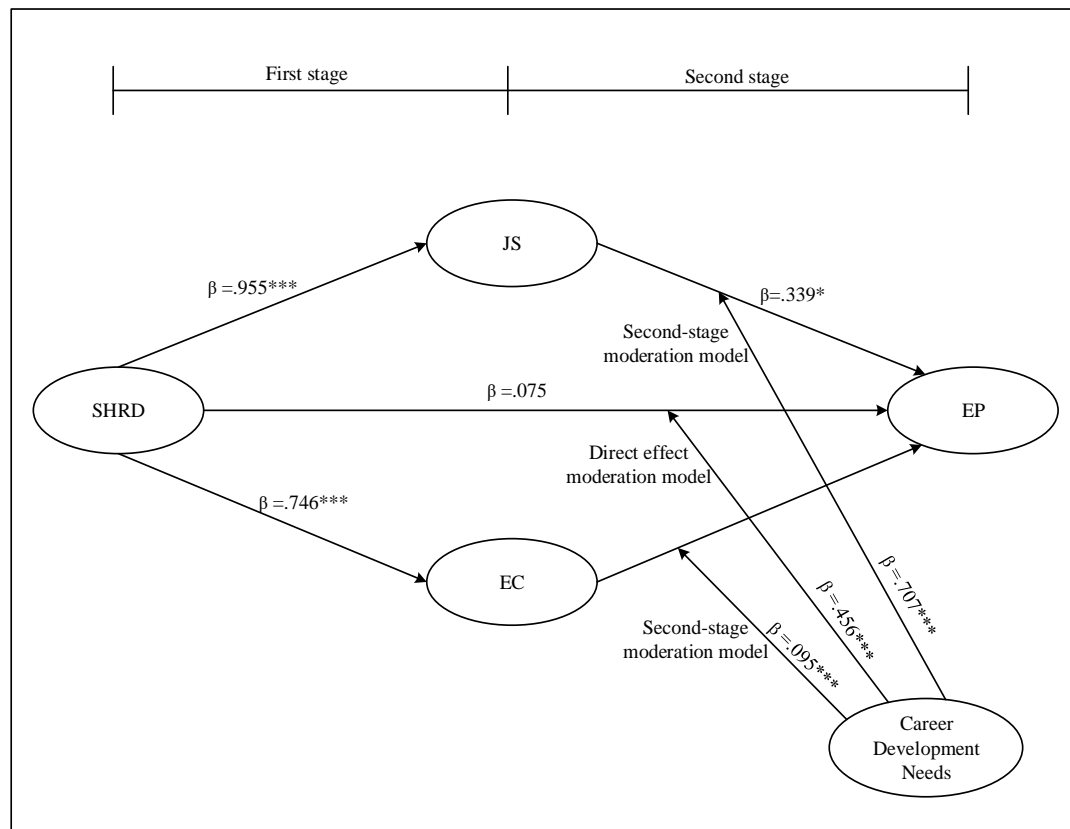


Figure 4.12 Hypothesis Testing for the Moderating Role of CDN

Note: * $P < 0.05$, *** $P < 0.001$, β = standardized estimates or path coefficient, SMC = square multiple correlation

Table 4.25 Summary Results of Hypothesis Testing for H8 to H10

	Hypotheses	β	b	SE	t-value	p-value	Results
H8	SHRD*CDN \rightarrow EP	.456	.041	.003	12.734***	.000	Supported
H9	JS*CDN \rightarrow EP	.707	.067	.004	17.524***	.000	Supported
H10	EC*CDN \rightarrow EP	.095	.009	.003	2.928**	.003	Supported

Note: $n=320$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (two-tailed), β = standardized path coefficient, b = unstandardized coefficient, SE = standard error, SHRD = strategic human resource development, JS = job satisfaction, EC = employee commitment, CDN = career development needs, EP = employee performance

Hypothesis 8:

Career development needs significantly moderated the relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

As for hypothesis 8, it was determined that the CDN construct acted as a moderator of the relationship between the SHRD construct and the EP construct. The CDN construct in this study was a continuous variable. The researcher, therefore, created an interaction variable between CDN and SHRD as another variable in order to test whether the CDN-SHRD interaction variable (CDN*SHRD) affected the EP construct. The results showed $\beta = 0.456$, $t\text{-test} = 12.734$, and a $p\text{-value} < 0.001$. Thus, this evidence was sufficient to accept that the hypothesis was true at a 0.001 statistically significant level; that is, the CDN construct acted as a moderator of the relationship between the SHRD construct and the EP construct, positively affecting each other and indicating that in the case of employees with high SHRD and high CDN, they would exhibit high performance and be different from employees with the opposite characteristic.

Hypothesis 9:

Career development needs significantly moderated the relationship between employee job satisfaction and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

The next section was a test of Hypothesis 9, which determined that the CDN construct acted as a moderator of the relationship between the JS construct and the EP construct. The researcher created another CDN-JS interaction variable (CDN*JS) in order to test whether the interaction variable had any effect on the EP construct. The results showed $\beta = 0.707$, $t\text{-test} = 17.524$, and a $p\text{-value} < 0.001$. Thus, from this evidence it was sufficient to accept that the hypothesis was true at the 0.001 statistically significant level; that is, the CDN construct acted as a moderator of the relationship between the JS construct and EP construct and they had a positive effect on each other. These employees exhibited high performance and were different from those with the opposite characteristics.

Hypothesis 10:

Career development needs significantly moderated the relationship between employee commitment and employee performance in the state enterprises listed on the Stock Exchange of Thailand.

Finally, the test of Hypothesis 10 determined that the CDN construct acted as a moderator of the relationship between the EC construct and EP construct. The researcher created another CDN-EC interaction variable (CDN*EC) in order to test whether the interaction variable had any effect on the EP construct. The results showed $\beta = 0.095$, $t\text{-test} = 2.928$, and a $p\text{-value} < 0.01$. This was sufficient to accept that the hypothesis was true at the 0.001 statistically significant level; that is, the CDN construct acted as a moderator of the relationship between the EC construct and the EP construct and they had a positive effect on each other. These employees exhibited high performance and were different from those with the opposite characteristics.

4.6 Comprehensive Findings from the In-Depth Interviews

In the same direction of the quantitative data investigation, the qualitative data were compiled to be used to describe the composition of the designed SHRD and the perspectives on the subject-related study factors as designed in the research methodology: job satisfaction, employee commitment, employee career development needs, and employee performance. The in-depth interviews were used as a tool to collect the qualitative data from the key informants. The study of the relationship between the SHRD design and employee performance aimed to determine why relevant factors expected to act as a mediator and moderator would affect or not affect the relationship between SHRD design and employee performance in the state enterprises listed on the Stock Exchange of Thailand. Therefore, in order to reach the objective of searching for qualitative data to explain the phenomena of the quantitative data analysis, the questions formulated through the semi-structured interview form were as follows.

Question 1: From your point of view, how should the developmental context of strategic human resource development (where the organization must provide

learning and development for employees both inside and outside the organization) focus on the development of knowledge, abilities, and skills of employees at different levels (operating level, supervisory level, and middle management level and above)?

Question 2: In terms of organizational directions, from your point of view, how should they be established to create a suitable environment for human resource development in various areas of the organization?

Question 3: From your experience and perspective, how does job satisfaction influence employees to focus on performing or creating results for the organization?

Question 4: How much do you think that employee commitment to the work and the organization helps to support the performance of employees?

Question 5: From your experience and perspective, how can employees that qualify, strive, or want to be successful in their career achieve their performance when they are learned and developed in their job duties?

Question 6: How do you think that the strategic human resource development of the organization, as a state enterprise listed on the Stock Exchange of Thailand, should have an action plan that can be linked to the vision, mission, and strategy of the organization?

Question 7: How do you think organizations should have a direction for building or improving employee satisfaction to help support strategic human resource development and impact employee performance better?

Question 8: How do you think organizations can create employee commitment in work and in the organization to promote those that have been developed and trained in delivering good performance to the organization?

Question 9: From your point of view, how can the organization lay out guidelines to encourage employees with career advancement or position requirements maintain or enhance their commitment to performance in order to deliver good performance to the organization?

Question 10: In the past, were there problems with the human resource development of state enterprises or not, and can such development be considered strategic development?

Question 11: Do you think that there are other important factors or elements in addition to job satisfaction and job commitment that can encourage or support the

employees that have been developed and trained to be committed to creating more efficient performance for the organization? If yes, what are such factors?

Question 12: Do you have any comments or suggestions for the strategic human resource development in public enterprises that are listed on the Stock Exchange of Thailand and other types of organizations, such as private and government organizations?

4.6.1 Conducting In-Depth Interviews and Key Informant Profiles

4.6.1.1 Performance of Conducting In-Depth Interviews

As for the in-depth interviews with the executives of each state enterprises listed on the Stock Exchange of Thailand as key informants in accordance with the established interview plan conducted in March, October, and November of 2021, the researcher conducted them *via* semi-constructed interview form. The interviews were carried out face-to-face and through online meetings. Each key informant interview took approximately 50-70 minutes, as stated earlier. It was conducted at the convenience of the key informants since the research fieldwork area was under the epidemic situation of COVID-19. The four key informants consisted of executives, mainly governing human resources and being involved in decision-making in the guidance and policies for developing employees in the state enterprises.

4.6.1.2 Key Informant Profiles

The key informants—four executives in the state enterprises listed on the Stock Exchange of Thailand—are shown in Table 4.26.

Table 4.26 Level of Management of the Key Informants

State Enterprises	Managerial levels
PTT	Senior vice president in operational aspect
AOT	Vice President (representative of CEO)
MCOT	Senior vice president in human resources
PTTEP	Vice president of HR development

4.6.2 Results of the In-Depth Interviews

Data were obtained from the key informants of the four state enterprises synthesized with the quantitative data to explain the phenomena of the key constructs in the conceptual model. It included SHRD, which consisted of two components: the developmental context and organizational context, job satisfaction, employee commitment, career development needs, and employee performance. However, although the main goal of this search for the qualitative data was to search for the attributes of and comments on the construct relationships defined in the conceptual model, the process of finding these data could develop some interrelated factors that were derived from the approach to finding qualitative data from the key informants at the same time. In addition, the influence of the defined variables will be discussed first as follows.

4.6.2.1 Strategic Human Resource Development Design

Strategic human resource development design was the antecedent variable of this study. Interestingly, the researcher pointed out in the literature review that a number of researchers have tried to apply factors related to management tools and strategies of organizations. This includes guidelines for developing and providing learning to personnel in the organization, which led to the search for findings on which factors had a considerable influence on employee performance, leading to be applied to the design of SHRD. The idea of this research was to find answers in the same direction, but there were various factors tested visually that could be integrated into the context and with different research samples, namely Thailand's state enterprises that were being upheld and implemented. Therefore, the variables to be observed for SHRD design were considered based on two contexts, i.e. the developmental context and the organizational context. This led to a representation of what it should look like to upgrade from HRD to strategic HRD.

1) The Design of Employee Learning and Development in the Organization

Given the developmental context, it was based on widely accepted HRD concepts, which focused on learning and development, but had a deeper perspective on development. All of the key informants provided information in the same way—that the organization provided support for learning and development

for employees in the form of in-house training which generally was under the arrangement of the human resource function of the organization, including assigning employees to attend training from outside training providers. However, most of the key informants mentioned the shifting development pattern from the COVID-19 epidemic that greatly affected the business activities of the organization as well as the employee development activities in the organization. This also affected and dramatically changed the training and development for employees of the organizations. As a result, learning and development models relied heavily on technology. Here is an example of the supportive reasoning for this change.

KI-ONE stated:

Training management during the past period until the present in the period of the epidemic of the coronavirus 2019 resulted in the training guidelines that were previously conducted within the organization itself. And the sending of employees to attend outside training has changed completely. The organization must look for a form of training through online systems, including access to learning in various courses through the platform provided by the institution.

KI-TWO added:

During the COVID-19 situation, the learning method was completely online; therefore, more training needed to be organized according to the situation.

In response to the questions whether the organization should provide learning and development to employees of all levels and if so what were the different approaches for each level, all key informants had the same view—that employee development at each level differs based on the nature of knowledge and skills involved in performing their duties.

However, the key informants all agreed that development in the job duties, the organization valued its employees at the operational level. This was because it was imperative that employees in this group need to be developed primarily in their job assignments in order to understand their responsibilities and self-development in order to become supervisors at a higher level. This training and

development can be considered in terms of two skills: soft skills and hard skills. The skills are aimed at developing skills in the life of employees, making socializing in the workplace and working together in a better direction. This kind of training is called soft skills. However, it might not be the only point of view of providing training for employees, but includes various activities in this area of development, such as employee orientation, brainstorming activities, and ice breaking activities for behavioral development. One of the key informants strongly supported the concepts of these activities.

KI-ONE commented on the advantages through such activities that:

Developing soft skills through collaborative activities among employees in the organization can help develop cross-functional collaboration as well.

He also added:

... the organization sending its employees to train in various courses from outside was just educating them on principles for work performance. However, it often did not result in knowledge communication between each department.

According to the interviews, soft skill development covered matters of relationship management, which was also related to the development of emotional intelligence. It is one of the observed variables in the developmental context. Therefore, when the interviewer specifically asked about developing emotional intelligence, the key informants viewed that these skills were necessary at all job levels. It is a direct responsibility of the human resource function to provide and train every employee in the organization, such as the attitude of teamwork, leadership, etc.

For the development of hard skills, the focus would be on the development of functional competency, which was determined from the work duties to analyze the competency of the employees at each level that still needed to be developed individually for use in working effectively. This was to reflect the human resource development function in order to plan for further training and learning.

In terms of the development of managerial and strategic capabilities, the key informants viewed that the development of management was a matter that needed to be developed according to the level of responsibility from the initial supervisory level. As for the need for this management, some of the key informants stated that a good analytical person was not a human resource function, but supervisors that regularly oversaw and worked directly together. They would be able to analyze which staff member at each level of their supervision should improve his or her capability in performing his or her duties at the current job level or needed to develop his or her skills in any managerial setting in order to prepare for the supervisory role. The key informants also stated that a portion of the required administrative skills could be reflected by the human resource function through annual employee assessments. They also tended to agree that in terms of training at the supervisory level and above, both internal training and external training could be arranged. However, one view among the key informants reflected that in-house training might not support managerial competence, in which KI-ONE explained his idea as follows:

If the employees with A1, A2 (good grades) assessments want to develop to enhance their abilities, it must be done in conjunction with incentives in the form of rewards and fast-track job promotion. I see this group as unsuitable for internal training because it is something this group already knows. It's not challenging for them, therefore, they must be sent to seek knowledge from outside... in order to make comparisons with other trainees to see at what level they are...

Further, he also mentioned that the development of key skills for employees in the organization was essential for employees that were recruited as talents. One of the key informants indicated that it is part of the human resource function to prepare this group for advancement in various important positions placed by the organization.

Furthermore, from the interview discussion about the development of communication, all of the key informants agreed that it was important

for organizations to develop and view it as lifelong improvements, such as community communication skills, communication in meetings, and foreign language skills.

One of the key informants, KI-TWO, also indicated that communication development was not limited to speaking and talked about other communication forms:

Developing the personality of employees in the organization is one of the issues that organizations focus on. However, due to the high cost of this course of development, the organization pours its budget to employees at the managerial level who need to communicate more with business partners. However, the organization places importance on employee development at all levels, but it is a fundamental development that does not have a very high budget.

2) The Design of the Environment to Support Employee Learning and Development

In exploring the elements to support the organizational context of the SHRD design, these elements were expected to make the environment suitable for the learning and development of employees in the organization and contribute to the effectiveness of the performance of employees and of the organization. The five components used as observed variables to jointly describe the co-influence in finding a suitable SHRD design for Thailand's state enterprises were top management support, HRD policies and plans, HRD professional roles, supervisor involvement, and the evaluation of HRD.

The first element was the support by top management of the organization. The information obtained from the interviews allowed the researcher to acknowledge that there might be several dimensions to look at. In terms of the intention of the management, KI-ONE stated:

...At the senior management level, it is understood that "people" were the most important. Therefore, top-down communication to employees was what the organization must be cautious about the most. Therefore, there is no direction to obstruct the budget for investment in people development...

Under the importance of the management of the organization, however, the budget was one of the elements that played an important role in the decision-making of training and learning for employees in the organization. The organization turned the development issue into the return on investment in order to determine in what dimensions the overall corporate investment was affected in addition to the performance appraisals, which had to be done on a regular basis.

One of the four state enterprises overviewed the human capital development plan to the researcher in order to demonstrate the long-term human resource development direction and to promote the development of human capital excellence under the state enterprise policy through elevating personnel in each line of work to become a business partner with the organization. Overall, the key informants were of the same view—that human resource development for the state enterprise was one of the key areas of interest for the organization's management.

In terms of policies and plans for human resource development supervised by the human resource function, they have to look at the direction of the organization's strategy, e.g. a 1-year short-term plan or a 5-year, long-term plan, to see how people would participate in supporting the state enterprise's strategy. This was to plan the development in accordance with the strategy. One of the key informants mentioned that human resource plans were subject to continual adjustments to suit changes in the organization and included external changes that affected the organization's development plans. The key informants of each state enterprise gave an example to illustrate the situation of the COVID-19 pandemic, which affected the operations of the organization in all dimensions. It was not only the human resource plan that resulted in the implementation of the development plan to change the format. Nevertheless, the organization might have to slow or cancel the development under the changing conditions of working styles that prevented meetings from taking place. Therefore, from 2020 to 2021, it was difficult to achieve development as planned. Although training in the function of human resources could not be carried out, the development of specific skills of the necessary departments in charge of the responsible departments could still be carried out. It was only that the service providers had changed their method of training, ushering almost all training courses into computer-based or virtual platforms.

One of the key informants explained an interesting guideline for a development plan:

Our human resource development is planned by taking the highlights of this year or new business ventures into consideration. We must also search, develop, and ready our people to be consistent with business objectives.

As for the role of a professional developer, the human resource function generally has sub-sectors that are directly responsible or that assign experts responsible for the development of the organization's employees. From the information obtained from the interviews, it was revealed that the human resource department in the organization is responsible for providing learning and development of various types of knowledge that the organization needs for the majority of its employees. Some state enterprises have established their own learning institutions for managing and providing in-house trainings and seminars to support and encourage employees to enter into the development process. The development of knowledge and competence in the main job remains mainly in the care of the supervisor. Human resource agencies today play an important role in developing talents and successors that the organization has selected. In addition, one of the key informants indicated that the organization had set up a development team that has assigned a human resource professional to participate in the development from finding knowledge gaps that need to be developed to planning and development in order to end the knowledge gaps needed to support future work.

As for the role of supervisors in supporting the learning development of employees, one of the problems derived from the interviews with the key informants was the view that employee supervision and development in the organization were the direct functions of the human resource department. However, the key informants involved in direct human resource management had the same view, that direct supervisors can play a role in the development of the employees they care for because they are able to access the behavior and problems of their subordinates, and the human resource department plays a role in supporting and implementing human resources in the process of employee development in the organization. Some of the key informants agreed that supervisors play an important

role in the development of the organization's employees because the supervisors knew best, and knew what knowledge and abilities the subordinates needed to use to perform their work effectively. They could assess and know if the staff in their care lacked knowledge and skills or what additional skills would be needed to be able to perform their current tasks. This included the lack of knowledge and the ability in the work responsible in the future or in the tasks that employees would be assigned in the future.

KI-TWO reiterated the following in this regard:

Certainly! The supervisor is the most important because he has to create his own successor because otherwise he can't move anywhere. ... It is considered a direct duty to train people in their own agency.

If the supervisor does not take care of this, employee development will never be successful even if the HR department plans to make any deal.

From his statements, substantially, there needs to be a focus on developing several subordinates to prepare them for leadership. In addition, job-specific abilities are the main roles that supervisors have to design and plan themselves. We cannot specify any employees and focus on developing only those employees compared to general private organizations. Because of being a state enterprise, there are more selection procedures and criteria than in general private organizations.

Additionally, one of the key informants provided guidelines to encourage supervisors to play an appropriate role in supervising their subordinates, including supporting learning and developing human resources in the department to achieve efficiency and to solve problems in the field of operations in their good care.

KI-ONE expressed the following in this connection:

Basically, the supervisors in each department focus on the work that is in their responsibility. Therefore, the organization in the past came up with an idea for supervisors in each department to have knowledge in the management of members in the unit, known as "HR for non-HR" for effective supervision and communication in the organization.

One of the key informants gave an example that assuming the organization will go digital and those they are not very good, the board requirements are very wide and the operating level will not understand them. Therefore, the most strategic way to develop people is that middle-level supervisors must clearly understand high-level strategies. However, the high-level supervisors must also explain to the middle-level leaders clearly as well.

Another example is offered by KI-TWO:

If we buy a football club, we must clearly ask the management if we buy the club that has many spectators for marketing expansion or for conveying that we have a football club. And then we will look again to see if we will only take the domestic market or the international market. Everything must be clear, so that the intermediary who receives the policy to implement will be able to follow the strategy.

The last factor was the component of creating an organizational environment to support the effectiveness of SHRD and to assess the development and learning of employees. Most of the latter commented in one direction. This activity did not have a clear guideline because it was effective and measurable. In the past, the obvious quantitative measure that had been defined as a key performance indicator (KPI) was training to meet the specified work plan. For example, KPI required employees in the department to train at least three courses a year, etc. Measuring qualitatively was time consuming and difficult to assess. This was largely reflected in the performance measurement of employees that could work more efficiently. Moreover, this assessment was one that only the supervisor had access to. However, the interviews showed that talent and successor development assessments were areas that could be incorporated into the process of analysis and planning of learning and development that could be carried out in a concrete manner and within a period that was quite clearly defined. This was because this assessment could lead to consideration for job promotion or appointment as a successor to a future vacant position.

4.6.3.2 Job Satisfaction

Job satisfaction in this research was relevant as a mediator when considering its role in contributing to strategic human resource development in the organization to a more positive level of operational success of employees. When reviewing the literature on various elements together, they led to job satisfaction among employees in the organization. The observed variables included the nature of work, compensation and benefits, attitudes toward supervisors, relationship with co-workers, and opportunities for promotion to find the direction of the qualitative influence from the key informants on job satisfaction. In general, when employees are satisfied with their jobs, they are more dedicated to their work. When considering the various factors in the theory that the researcher had set as a framework for the study, the informants had interesting comments as follows:

KI-ONE commented that:

Good welfare will affect employee satisfaction.

KI-TWO described the crucial variable related to the employee's job satisfaction in the following:

In our organization, rewards aren't that far apart for those who get A or B grades, but the variable that maximizes an employee's potential is his trust in his colleagues and boss. He can take on the challenge because he knows that if something goes wrong, the boss will not leave and the colleagues will help each other... He feels stable and safe at work.

When the researcher asked for opinions from the key informants on the influence of their satisfaction with the performance outcomes of employees in the state enterprises they were operating in, they agreed that it should generally be in a positive direction. However, two key informants had the same opinion—that although employees might be satisfied with their work, it was not a measure of whether those employees could perform for the organization exceptionally or be capable of putting in effort to improve their work proficiency.

KI-TWO gave an example of this issue:

Some employees nearing their retirement age are very self-sufficient in the organization. But they do not try to create a better performance because they see that in a few years they are about to retire.

In the same view, KI-THREE said:

Some employees have worked for a long time, but they are not trying to create value for themselves or the organization. A few of them stay only because this place is a comfort zone.

The key informants of the state enterprises concluded that overall employees were satisfied with the organization for the reason of being a state enterprise. In particular, some state enterprises that were sampled in the study were large and had good returns and benefits compared to other organizations in general. However, in the search for opinions on the impact that affected performance, the informants indicated that the employees were satisfied with the job. Most of the employees were committed to working for the organization or to self-development for advancement in their work career.

4.6.3.3 Employee Commitment

Employee commitment in the context of state enterprises was interesting in the dimensions of the public and private sectors. In this research, the population was leading large organizations that were listed on the Stock Exchange of Thailand. Therefore, if one looks only at the external characteristics, it can be seen that the organization would draw out the strengths of stability in working with the organization, including outstanding welfare in the public sector and internationalization in the administration of the private sector. Consequently, commitment attributes, namely continuance commitment, affective commitment, and normative commitment, are defined as the employee commitment to job duties and to the organization. Based on the interviews with the key informants that had had long experience working with organizations, the opinions were in the same direction. Overall, the employees felt connected to the organization because of a number of elements, such as the organization's work culture and co-workers in the organization,

etc. Most of the interviewees gave evidence that demonstrated not only job satisfaction but also organizational commitment, which showed the inevitable connection between each other.

KI-TWO indicated the tendency of the employees being satisfied with the organization in the following:

We believe that when this group of people receive any training and are satisfied with the organization, it should help them love and trust in the organization as well. Therefore, they will do their best.

In addition, KI-TWO pointed out the interesting link between the two factors above:

When they're working, they are happy. When they are happy, they will be bound when they form a bond. If we stimulate their work appropriately, especially people who are passive and try to stay in the safe zone and don't want to change anything, such as those near retirement, etc., supervisors have to increase their job challenges...

In regards to this relationship, one of the key informants reflected that organizational commitment was abstract—an organization might refer to a building, workplace, or job title, which was something that could not be touched. The obvious bonds arose from the bonds that had to be among the people working together in separate organizations.

One of the key informants indicated that employee commitment originated from both parties in a direct relationship, i.e. employer and employee, or an organization and its personnel. For an organization, there should be policies and strategies promoting personnel awareness on the working benefits in the organization. The organization's management and human resource divisions should take actions and communicate with employees to make them feel confident and appreciate their career and wealth opportunities, and their well-being, social status, self-esteem, and other benefits provided by the organization. This confidence would lead employees to become aware of the integrated ownership of the organization. Employees must show gratitude and strive to do their best work as an organization that gives value to them.

Overall, the key informants perceived that the main cause of high commitment was that the state enterprises were business organizations that were not in a highly competitive environment compared to private enterprises. Moreover, the organizations had guidelines for setting up a career that were quite clear. The state enterprises would implement as planned in order to allow employees that were still working with the organizations to reach the goals of their careers. In summary, the key informants as executives of state enterprises had the same view—that employees in the organizations were not inclined to move away from the organizations. Even younger employees tended to have the same tendency. The main result was the feeling of stability in work and the overall response and welfare received from the state enterprises.

4.6.3.4 Career Development Needs

The career development needs in this research were relevant as a moderator to directly reinforce strategic human resource development regarding employee performance and to indirectly reinforce job satisfaction and employee commitment regarding employee performance. The influential literature suggested by Armstrong (2014) stated that the success of SHRD should not ignore the employee's needs or aspiration to develop his or herself before implementing the development program.

This study, therefore, applied need for achievement, need for power, and need for affiliation to be the observed variables in order to find the direction of qualitative influence from the key informants on the perception of career development needs in the state enterprises listed on the Stock Exchange of Thailand.

From an interview with one of the key informants (KI-THREE), he highlighted that when compared to the past, development was something that everyone has to learn according to the curriculum that HR provides or they would have to learn on the job for which they are primarily responsible. Nevertheless, the current direction has gone farther than expected as employees can learn what they are interested in, especially the new generation of employees, for example with meditation practice, make-up, etc. In fact, what employees want to do in such training is considered to contribute to greater efficient operations and to make employees feel that their needs are being met.

In the same view, KI-TWO provided information on employee characteristics in regard to self-improvement needs:

The group of employees with a high interest in learning often don't need to wait for the organization to develop them. They will learn what they want to know themselves as can be seen from that many employees who graduated with a master's degree. Then these employees will find time to study for another master's degree. Some people end up graduating with three degrees. Of course, these people can create good results with their own attributes.

KI-THREE spoke of the problems due to a group of employees with high demands for growth in their roles by stating the following:

Many employees have learning outcomes and self-development at work within a short time. However, these employees want to be promoted sooner or need a high achievement. And the organizations can't provide all the employees want... We have to manage the expectations of our employees as well.

In addition, KI-TWO opined the following:

If employees had no need for self-improvement at all, they would not be successful. It's fine to have a little or half of the will to succeed. He also emphasized that employees should have goals for their own work in order to benefit themselves.

4.6.3.5 Employee Performance

By interviewing the key informants at the executive level to search for the connections between the variables reported in past literature as an influence on employee work performance as the dependent variable, this research set indicators to reflect work performance, i.e. task performance, contextual performance, and adaptive performance. However, as such a variable was designated as the dependent variable from the researcher's focus variables, the interviews neither aimed to search for the state enterprise needs of employees, nor evaluated the overall performance level of each state enterprise, but focused on the performance direction affected by the variables specified in the conceptual model of the study. In sum, the key informants

indicated that the good performance of employees was related to several factors, in which learning and development were the main variables that organizations believe to be a linkage among work performance, job satisfaction, employee commitment, and career development needs. These factors are intrinsic to motivate employee performance. One of the challenges finally stated by a key informant was the development of new-generation employees that desire freedom and prompt respect.

4.7 Integrating Quantitative and Qualitative Results of the Study

The research findings for both the quantitative and qualitative empirical data were discussed in order to explain the characteristic of strategic human resource development that could lead to the upgrading of employee performance in the state enterprises listed on the Stock Exchange of Thailand. For a better understanding of this characteristic, therefore, these two themes of empirical data were synthesized.

In the measurement of the strategic human resource development design through the indicators in developmental and organizational contexts, in terms of quantitative testing, it appeared that all indicators supported the designed SHRD by showing high mean levels, both in the developmental context and the organizational context. All of the indicators defined the SHRD design. Comparing the views of the executives of each state enterprise, they declared that training and development activities were planned and conducted to educate their employees, where the priority depended on job levels. Regarding the creation of an organizational environment to support the development in the organization, the executives strongly mentioned the role of supervisors that closely govern and monitor their subordinates. This perception corresponds to the highest mean score by the samples of the study. However, the ranking of other supporting activities also seemed to be high. This trend was the same as the information received from the executives' interviews.

In terms of the analysis of job satisfaction and employee commitment constructs as the mediators in this study, both factors showed very high means for the quantitative testing. Among the high mean for each construct, the relation with co-workers in terms of job satisfaction was the highest and affective commitment in terms of employee commitment was the highest mean. The results of this quantitative

test were supported by the interview information—that most employees decided to stay with the organization because of their colleagues and supervisors. These people would support them in challenging work or being advisors on work problems. Considering the mediating influence of the relationship between SHRD design and employee performance, it showed that employees with commitment were able to motivate themselves regarding job performance rather than job satisfaction. This finding was reflected from the executive interviews, stating that job satisfaction might not motivate certain groups of employees for more challenging work, as they were rather satisfied with their work security.

When considering the career development needs of employees in supporting the improvement of their performance, the self-assessment mean of the sample of employees was ranked high, meaning that employees of the target state enterprises tended to have high aspiration for achievement in their job career. The testing results pointed out that this aspiration could reinforce the influence of job satisfaction and employee commitment toward employee performance. With respect to the qualitative opinions toward the characteristics of employees that seek career success and acknowledgement by the organization, the key informants viewed that these employees tended to self-develop their skills without the need for planning or assignments from the organization, and that these employees were likely to perform well for the organization.

In summary, the overall test results of the proposed structural equation model of the causal relationship between strategic human resource development design and employee performance in the state enterprises listed on the Stock Exchange of Thailand were consistent with the theoretical model from the literature review.

CHAPTER 5

DISCUSSION AND CONCLUSION

This final chapter summarizes the results of an overview study of the causal relationships between strategic human resource development and employee performance in the state enterprises listed on the Stock Exchange of Thailand. This research aimed to find the causal factors that contribute to employee performance enhancement, which was strategic human resource development (SHRD) of Thailand's state enterprises that were expected to affect the relationship between these two factors. The theoretical variables involved in this study consisted of two variables: the mediating variables, which consisted of job satisfaction and employee commitment, and the moderating variable, the career development needs of employees. Three key study objectives have been identified. First was to study the influence of job satisfaction and employee commitment as the mediators of the relationship between SHRD design and employee performance. Second was to explain the influence of career development needs as the moderating role of SHRD, job satisfaction, and employee commitment versus employee performance. Third, the last key purpose, was to develop a design of SHRD to be in line with the organizational strategies and goals for improving employee performance in the state enterprises listed on the Stock Exchange of Thailand. The questionnaire for collecting the data was a closed-ended type. A numerical rating scale was used to show the different levels. The questions for measuring the variables has five ranges on an estimation scale, from “strongly disagree” to “strongly agree.” From the paper and online questionnaires distributed to the employees of four state enterprises listed on the Stock Exchange of Thailand, 337 questionnaires that passed the error checks were brought into the statistical analysis process. This sample size referred to the suggestion of Kline (2015), that the sample size of more than 300 cases should be considered appropriate for SEM using the AMOS program.

Therefore, this chapter presents the summary, discussion, and managerial and theoretical implications of the findings of both the quantitative and qualitative research. The limitations found during the study are also discussed before providing the suggestions for future research.

5.1 Summary of the Research Findings and Discussion

This study used a mixed method using mainly quantitative results from statistical testing and qualitative findings through interviews with the executives of state enterprises as the target key informants for the research. Therefore, in order to understand the overall study results, the researcher summarized the results of the data analysis through the questionnaire to describe the nature of the overall data and the test results according to the established hypotheses and to bring to discussion the results of the study together with the data obtained from the in-depth interviews. This included comparison with the literature reviewed by the researcher and led to the search for answers in the strategic human resource development study specifically designed to test the correlation with employee performance, including the influence of other interesting variables that were brought together to find the causal relationship of various variables according to the objectives of this study.

5.1.1 Summary of the Descriptive Statistic Findings

Based on the baseline analysis of the sample of employees of four state enterprises, it was found that the study sample had a roughly equal proportion between male and female employees. Moreover, most of the samples were aged between 30 and 39 years or 40%. Most of the sample groups were educated at bachelor's and master's degree levels. The same proportion was about 40% of the total sample. More than half of the employees were married. In addition, when considering the age of working with the state enterprises, it was found that the distribution in each group was not different. For employees that worked fewer than five years, five to 10 years, and more than 10 to 15 years and more than 15 years, each group accounted for about 20%, and these sample groups were employees at the operational level up to 70%, and the rest were at the supervisory level and above. In addition, when

considering the length of service in the position that the employees were currently responsible for, it was found that about 50% of the employees were in the current position for no more than five years and earned no more than 50,000 baht and about 28% earned between 50,001 and 100,000 baht and the others received income of more than 100,000 baht or about 17%.

According to the study purposes, there are four types of variables from the five research constructs, i.e. one exogenous variable as a higher order construct, namely SHRD, with two first-order constructs, which were the developmental context and organizational context; one endogenous variable, which was employee performance; two mediating variables, which were job satisfaction and employee commitment; and one moderating variable, which was career development needs. The results of the descriptive statistics and confirmatory factor analysis using the structural equation model analysis were analyzed from 320 sample cases after eliminating outliers to find the relationships among the constructs.

The overall findings, the mean of SHRD, was ranked high, which showed that the employees of the target state enterprises as a whole had a high level of perception and opinions on development and learning. The findings of first-orders of SHRD, both in developmental and organizational contexts, also were ranked high.

Apart from studying the causal relationship of SHRD design and employee performance, testing the indicators of each SHRD component was one of the research objectives to confirm the design of the SHRD of the current study. The test results found that all indicators of both components could represent the SHRD design and that individual learning in the developmental context had the highest mean. For the analysis results of the mediating variables. (1) The perception level of job satisfaction had a high mean. All of the indicators representing this factor also had a high mean, with the highest mean of the indicator being the relation with co-workers, followed by the nature of work, attitudes toward supervisors, opportunities for promotion, and compensation and benefits. (2) The perception level of employee commitment also had a high mean. The three indicators of this construct had a high mean arranged in descending order from the mean as follows: affective commitment, normative commitment, and continuance commitment.

Next, the analysis results of the moderating variable, which was career development needs, the overall respondents showed a high mean, where the need for achievement had highest mean, followed by the strategic capability development variable and emotional intelligence development. As for the five indicators of the creation of the organizational environment, the highest indicator was supervisor involvement, followed by top management support, HRD professional roles, HRD policies and plans, and evaluation of HRD.

Regarding the analysis results of the moderating factor, which was career development needs, the overall respondents showed a high mean. The three indicators of this factor were also assessed at a high level, with the need for achievement having the highest mean, followed by the need for affiliation, and the need for power.

Last, the analysis results of employee performance, the dependent factor of this study, showed a high mean. All three indicators of this factor were at a high level with similar averages, with task performance having the highest mean, followed by adaptive performance and contextual performance.

Regarding the overall baseline statistical results of the five constructs, it was found that all of the constructs had a high average. The overall mean of all the variables also had a high mean, and the construct was sorted in descending order of mean, which were employee performance, career development needs, employee commitment, job satisfaction, and strategic human resource development, with means of 3.946, 3.946, 3.903, 3.856, and 3.675, respectively.

5.1.2 Summary of Structural Model Testing

To confirm the structural model designed from the literature review with the empirical data, the influence of the SHRD design on employee performance, both direct and indirect effects, was investigated. Moreover, job satisfaction and employee commitment were tested for the role of the mediator, and career development needs were tested for the role of the moderator. From utilizing the data of 320 qualified samples in the model analysis, it was found that the discrepancy of variables had a relation in accordance with the MI index. After modification, the models were found to be consistent with empirical data as per the acceptable index criteria of Hair et al.

(2014) and Schumacker and Lomax (2010), and the results of testing the hypotheses are summarized as follows:

The overall measurement model analysis presented the standardized factor loading of all the constructs greater than 0.50, as suggested by Hair et al. (2010b). Cronbach's alpha coefficient for all of the measurement scales ranged from 0.929 to 0.980, which was higher than the threshold (> 0.70). The proposed structural model was consistent with the theoretical framework confirmed by acceptable fit indices: the goodness of fit index, adjusted goodness of fit index, root mean square error of approximation, comparative fit index, and Tucker Lewis index.

The test results of the relationship between the job satisfaction construct and the employee performance construct showed that job satisfaction had a positive influence on employee performance at a statistically significant 0.05 level. The test results of the relationship between employee commitment and employee performance provided sufficient evidence to admit that there was a positive influence of employee commitment on employee performance at a statistically significant 0.001 level. Further, the test results of the relationship between strategic human resource development design and job satisfaction of employees showed the positive influence of job satisfaction at a statistically significant 0.001 level.

Corresponding to the hypothesis that strategic human resource development design has a positive effect on employee commitment, there was sufficient evidence to accept that SHRD positively influenced employee commitment at a statistically significant 0.01 level. Additionally, the test results of the relationship between SHRD design and employee performance showed that the SHRD design had a statistically insignificant positive influence on employee performance at statistically significant 0.001 and 0.05 levels. However, when testing the role of career development needs as moderators of the relationship between the SHRD design and employee performance, it appeared to indirectly moderate the SHRD design and employee performance at a significant statistical relationship of 0.001 level.

Such career development needs also indirectly moderated the relationships between job satisfaction and employee performance, and employee commitment and employee performance, strengthening the influence at a statistically significant 0.001

level, which made it possible to accept the three hypotheses of the moderating role of career development needs as being true.

When considering the test results for the mediating role of job satisfaction and employee commitment, it appeared that job satisfaction and employee commitment significantly mediated the relationship between strategic human resource development design and employee performance at 0.05 and 0.001 levels, respectively. The results of these calculations showed that the coefficient values of the indirect paths of both constructs were larger than the direct paths, which made it sufficient to accept the two hypotheses of the moderating role of job satisfaction and employee commitment as being true.

5.2 Discussion of the Quantitative and Qualitative Findings

From the test results of the causal relationship factors that affect the performance of employees working for state enterprises listed on the Stock Exchange of Thailand, consisting of four factors—SHRD, job satisfaction, employee commitment, and career development needs—the findings showed that the SHRD design was directly positive, but not at a level that was significant enough to improve outcomes for performing work. This positive effect corresponds to the studies of traditional HRD and of Lyons (2016), which examined the influence of SHRD on organizational performance. However, the findings from this study pointed out the direction that the factors taken in the study were correlated with each other in all factors, indicating that these factors were important to the performance of state enterprise employees. Among the number of variables used in this study, employee commitment had the greatest impact and was significant at the 0.001 level, followed by employee satisfaction and the SHRD design, which were the antecedent factors in this study. When considering the details of each indicator reflected in the questionnaire to describe the influence on each construct, the employee commitment indicators consisted of normative commitment and affective commitment. They helped to support employees with high commitment and contributed to performance at a high level as well. This study's findings supported the study of Benjamin (2012),

which indicated that the human resource development climate is significantly affected by affective commitment.

The data obtained from this statistical test also were consistent with the in-depth interview data in that the executives representing Thailand's listed state enterprises were of the same opinion that, in general, the employees in the listed state enterprises were proud to have worked with the organization, a large state enterprise, and one of the country's leading organizations. This included employees that had worked for a short time, as they were also more likely to have the same opinions. These observational data were based on the concept of (J. P. Meyer & N. J. Allen, 1991; Meyer & Allen, 1997), which is widely recognized in academics.

When considering the satisfaction of the state enterprise employees in this study, it was found that the supervisor's attitude was one of the indicators that had a high factor loading and that caused job satisfaction to affect employee performance the most. This was followed by relationships with co-workers. These two indicators were clearly reflected in the qualitative data obtained from the interviews. This emphasized that supervisors were the key players in direct supervision of their subordinates and knew the abilities and what their subordinates needed to develop the most and also knew how to provide learning and development for current and future assignments. In addition, supervisors and co-workers helped to support challenging tasks and were ready to listen and help when experiencing problems or errors. They empowered employees to take on challenging tasks in order for the organization to achieve its objectives. The findings of this empirical study are consistent with those of Vermeeren et al. (2014) indicating that the overseeing of supervisors positively affects the performance of employees in the organization.

In addition, another factor that the researcher used in the study of the influences on employee performance was the career development needs of employees. This was tested based on a recommendation by Armstrong (2000), which suggested that needs or aspirations are an important factor that the organization must not neglect. This was tested based on a recommendation by Armstrong (2000), which suggested that needs or aspirations are an important factor that the organization must not neglect. As for strategic human resource development in the organization and the review of the literature, the researcher defined career development needs as a variable

that adjusted the relationship between SHRD design, the direct variable, on employee performance as well as job satisfaction and employee commitment, the indirect variables, on employee performance. After applying the career development needs to create an interaction factor with both variables above in order to adjust for the second-stage moderation, the results were found to be in line with those of the Armstrong (2000) recommendation. The employees' needs or aspirations adjusted job satisfaction and employee commitment to have a greater effect on employee performance. They could significantly adjust the SHRD design to have a significant impact on performance at 0.001. It can be seen that career development needs are an interesting factor to study. From the synthesis of the qualitative data obtained from the interviews with the management, there was information to support that employees with these characteristics are constantly learning and adapting. The respondents stated that these employees are not just waiting for the learning provided by the organization; they are constantly seeking to learn more. It is also learning that is characterized as long-term development rather than training, such as continuing education at the master's degree level or learning at the higher education level, both at the bachelor's and master's levels in other fields that would increase their knowledge. It is no wonder why employee aspiration can significantly optimize the development of an organization's strategic resources to affect employee performance.

In this study, the results based on the structural model revealed that the designed SHRD did not have a significant, direct effect on employee performance in the state enterprises, but it was a phenomenon explicable in terms of the potential of employees in the organization. This was because the learning and development of the organization are considered to build on the core competency of employees required for the tasks assigned by their position in the organization in order to increase their work efficiency as well as to support the tasks that might be assigned to them in the future.

The discussion of the influence of job satisfaction and employee commitment above has significant implications for employee performance. When tested for the role of an intermediary in linking strategic human resource development relationships to performance factors, it was found that the designed SHRD could significantly influence performance. Employee commitment was more effective than job

satisfaction in this respect. There was an interesting point of view from the qualitative data explaining why employee commitment created a better relationship than job satisfaction. Some employees with high job satisfaction might not be committed to delivering the best results because they think that working in the current position is a comfort zone or they are near retirement age and do not have enough motivation to improve their performance. One of the recommendations in this regard was to motivate workers by assigning challenging tasks. It can be seen that both of these factors have played a role in past research in encouraging the causal factors that the researcher was interested in testing to significantly affect the performance of employees or the organization. Examples included in this study were those of Achieng'Odembo (2013) and Khan et al. (2016).

One of the key objectives in driving the researcher to seek answers and interesting empirical findings was the SHRD design, which was based on a review of the literature and is often referenced in tests as a component of SHRD. The researcher synthesized and divided the components of SHRD into two contexts, namely the developmental context and organizational context. These helped to create an environment suitable for the human resource development of the organization. When looking at the indicators used in the test to support the two contexts, the three indicators of the developmental context—individual learning, emotional intelligence development, and strategic capability development—influenced together the SHRD design at a high level. Strategic capability was the most influential indicator of the number of indicators used as a component of the developmental context. This indicator was proposed by Armstrong (2000), following the conception of Harrison (1997) in planning employee learning. In terms of creating an organizational environment to support SHRD factors, this context included top management support, HRD plans and policies, HRD professional roles, supervisor involvement, and evaluation of HRD. Every indicator had a loading factor greater than 0.9, so it could be concluded that these two contexts could support the SHRD designed for this study to a very high influential effect. However, in the cross-context comparisons, all of the organizational context indicators had greater weight combined. The results of this empirical test led to the conclusion that upgrading HRD to SHRD requires design considerations in two aspects: both the developmental context related to learning and

the development and organizational context. The latter was the basis of the original line and the creation of an appropriate environment to support effective people development in the organization.

5.3 Contributions from the Study

According to the investigation of employee performance in the state enterprises listed on the Stock Exchange of Thailand through the SHRD design as the causal factor and critical theoretical factors, which were job satisfaction, employee commitment, and career development needs, the structural model from the empirical evidence almost fit the proposed structural model from the theoretical framework. The main contributions and detailed findings of this research include the following:

5.3.1 Theoretical Contributions

Theoretically, in light of the details obtained from the past literature reviews of SHRD, the results indicate that a number of quantitative studies have been used to apply components, related to creating an organizational environment, to test the effectiveness of the improvement of employee performance rather than factors related to training and development.

In this study, the conformation of the components of SHRD could contextualize and elevate existing HRD concept, which was only focused on employees' learning and development. However, due to the ambiguity of such concepts and the lack of standard procedures for adoption and implementation within the organization, the researcher's opinions were divided regarding the setup of such indicators. From the collection and selection of the indicators for measurement purposes, it was found that strategic development for people in the organization should proceed according to two aspects. The first being the aspects regarding the establishment of an organizational environment that effectively supports employee development. The second aspect focuses on the learning and development of employees, especially the development of proficiency in areas related to organizational strategies, which was pointed out by this study as an important factor that operates under the HRD aspect. However, the results of this study also pointed

out the importance of a healthy organizational environment in HRD along with people's learning and development.

Furthermore, from this study, it can be said that the factors related to employee feelings, such as job satisfaction, commitment, and the career development needs of employees are "dormant" factors, which should not be overlooked by the organization. These factors can be measured in terms of intrinsic and extrinsic values, with extrinsic value measured through things such as compensation and benefits, while intrinsic value is derived from the feelings of employees and the external environment. Beneficially, this study points out that investing in the SHRD of the organization contributing to effective employee performance should be carried out in parallel with imbuing employees with high job satisfaction and commitment to the organization. Finally, this study suggests an alternative concept of SHRD to be practically implemented in organizations in order to enhance employee performance.

5.3.2 Practical Contributions

Empirical evidence from the study provides guidelines for organizational management on the implementation of strategic human resource development mainly in the state enterprises—indicating that its components should include organizational and developmental contexts. This should align with the organization's strategy to support the efficiency of employees' work. In addition, this study also supports previous studies that indicated that job satisfaction and employee commitment can play an important role in effective people development in the organization. This study additionally pointed out that, overall, employee satisfaction and commitment in state enterprises are below acceptable levels with room for improvement to better support working operations. Ways to support motivated employees for personal development to receive opportunities for long-term learning were also examined, such as educational support, which was carried out accordingly by these state enterprises. This implies that effective strategic human resource development should be based on understanding the employees' attitudes and behavior in the organization.

Specifically, the results of this study could be used to support the direction of human resource functions and the human resource professionals of state enterprises as these organizations have more outstanding work security and welfare in the capacity

of both the public and private sectors. Moreover, managers can gain greater understanding of people development, which can be adjusted and applied to other organizations, especially in general and listed companies of Thailand due to the similarities shared by the state enterprises implemented in this study with the exception of the state enterprises being partly owned by the government.

5.4 Limitations and Suggestions for Further Research

The study of the causal relationship between strategic human resource development design and employee performance exhibited limitations, and suggestions have been made on matters that the reader should be aware of regarding the context of the findings for practical implementations and academic purposes, as follows:

1) For better understanding of the results derived from the comparison between this study and previous studies, the reader should take into account the indicators of SHRD aside from the correlational trend of SHRD regarding employee performance. This is due to the diversity in SHRD concepts and components from the literature review.

2) For a more effective implementation of the SHRD components derived from this study, the environment and culture of the organization should be considered.

3) In order to strengthen the theoretical concept of SHRD, the researcher suggests that future research pay attention to the fundamental variables from this study and other interesting variables for comparison between private enterprises and governmental organizations or to compare amongst the state enterprises. This could make the identification of the differences in the components more apparent. Moreover, the performance of SHRD between the supervisor and staff level should be compared.

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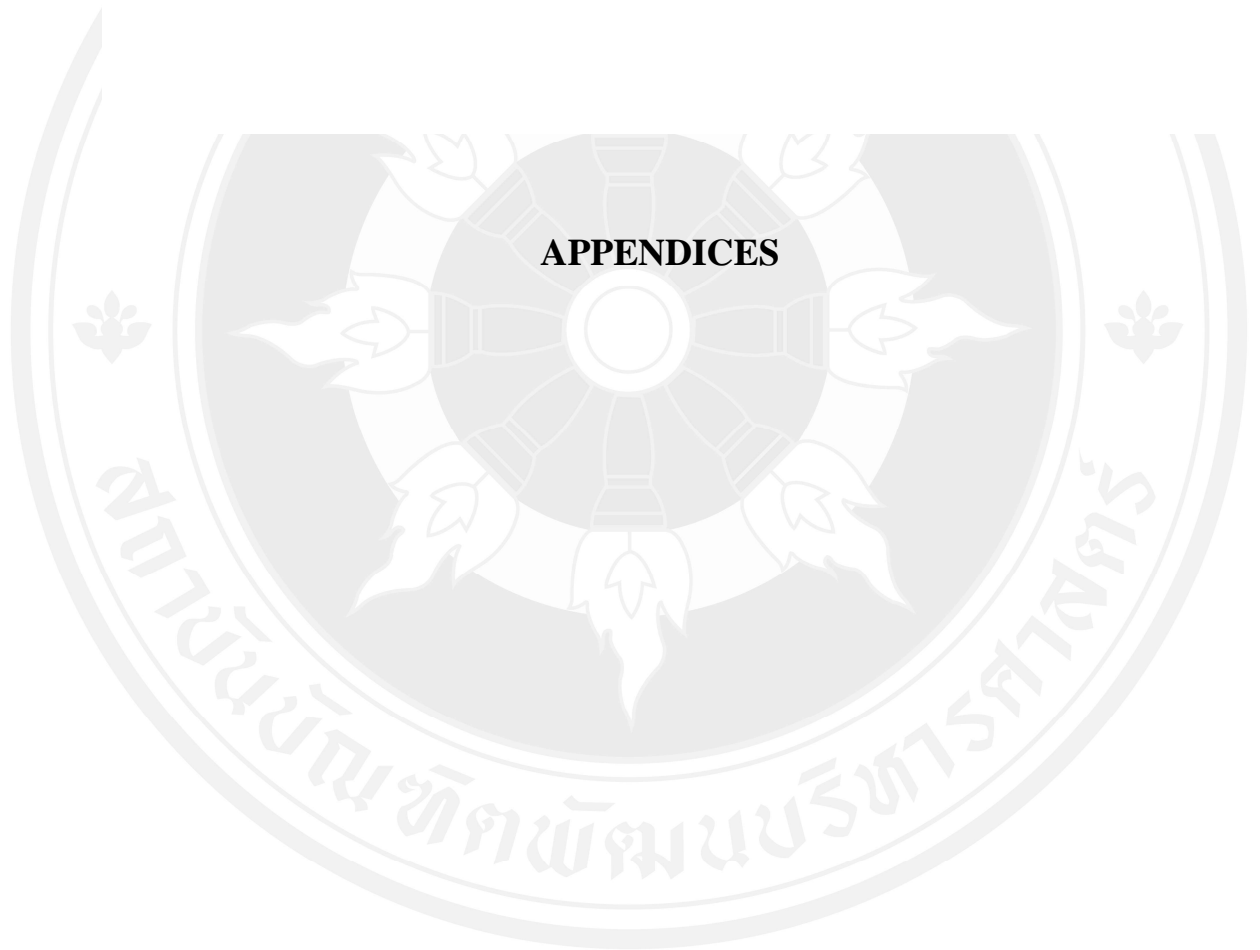
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APPENDICES





Appendix A

Overview of State Enterprises Listed on The Stock Exchange of Thailand

The Airports of Thailand Public Company Limited (AOT)

AOT was corporatized from a state enterprise, namely the Airports Authority of Thailand (AAT), to be a public limited company on September 30, 2002 with the registered head office at 333 Cherdwutagard Road, Don Muang, Bangkok 10210, Thailand. AOT is a leader of Thailand's airport business. Its main business lines are managing, operating, and developing airports. Presently, AOT has six international airports under its responsibility: Don Mueang, Phuket, Chiang Mai, Hat Yai, Chiang Rai, and Suvarnabhumi, all of which accommodate both domestic and international flights. With the opening of commercial operations on September 28, 2006, Suvarnabhumi Airport serves as the main airport, replacing Don Mueang International Airport, which was unable to accommodate the overwhelming air traffic growth. At an initial stage, Suvarnabhumi Airport has a capacity to accommodate up to 45 million passengers and three million tons of cargo per year.

AOT's main revenue derives from: (a) aeronautical revenue, consisting of landing charges, parking charges, passenger service charges, and aircraft service charges, and (b) non- aeronautical revenue consisting of concession revenue, office and real property rents and service revenues. In the management of airport operations, AOT has to acquire external operators to provide some required ground services for passengers as agreed under contracts with AOT. They are, for example, Thai Airways International Public Company Limited, and Thai Airports Ground Services Company Limited. Operators of retail shops, warehouse facilities, limousines, parking services, and other conveniences have to pay for concession fees, rent, and service charges. Other non-contract tenants running services within AOT airports pay rent and service charges to AOT.

Human Capital Management

In the administration of AOT's six international airports, all of the employees are significant in leading the organization to success. Therefore, AOT has a policy to focus on reinforcing, developing, and improving the administration and development of employees in order to ensure that they are service-minded and generate confidence in the safety and security of the airports, which is the heart of service rendering, and

also take part in helping society as a whole. AOT also supports its personnel to be a major mechanism of AOT's development toward becoming the world's airport operator.

Sources: <https://www.airportthai.co.th/en/airports-of-thailand-plc/about-aot/business-characters/>

<https://www.set.or.th/set/companyprofile.do?symbol=AOT&ssoPageId=4&language=en&country=US>

PTT Public Company Limited (PTT)

PTT, the former Petroleum Authority of Thailand, was established in December 29, 1978, under the Petroleum Authority of Thailand Act B.E. 2521 (1978) to operate petroleum and other related businesses.

In the wake of intensified market competition, the government envisioned a need for increasing the role of the private sector in the energy industry. On September 25, 2001, the cabinet gave consent to transform the assets of the Petroleum Authority of Thailand into equity capital. Upon its resolution, PTT Public Company Limited or PTT Plc. was founded whilst the government continued to hold a share of not less than 51% in the company.

Later, PTT was corporatized into a public company limited under the Corporatization Act B.E. 2542 (1999) I the establishment of PTT Plc. on October 1, 2001, with registered capital of 20,000 million baht. Then it was registered on the Stock Exchange of Thailand on December 6, 2001, having the Ministry of Finance as the largest shareholder. PTT maintains the status as a state enterprise under the supervision of the Ministry of Energy.

Human Capital Management

Employees are pivotal for corporate operations, and their quality is a key to their business success. PTT, therefore, stresses the development of HR management systems compatible with technological advancement and international standards. It not only promotes both conscientious merit and business competence among its

employees, but also encourages them to actively take part in public service. It is indeed through employees that PTT focuses on its development into a sustainable organization to elevate its competitiveness and to respond to internal changes of the corporation in pursuit of national energy security.

Sources: <https://www.reuters.com/companies/PTTEP.BK>

[https://www.set.or.th/set/companyprofile.do?symbol=PTTEP&ssoPageId=4
&language=en&country=US](https://www.set.or.th/set/companyprofile.do?symbol=PTTEP&ssoPageId=4&language=en&country=US)

PTT Exploration and Production Public Company Limited (PTTEP)

PTTEP is a Thailand-based company engaged in the exploration and production of petroleum. The company operates three business segments: oil and gas exploration and production; overseas pipelines; and investment in projects strategically connected to the energy business. The domestic projects are located in the Gulf of Thailand. The overseas projects are operated in Southeast Asia, Australia, the United States, Africa, and the Middle East. The company's projects include the Arthit project, B6/ 27 project, the Bongkot project, the E5 project, the PTTEP 1 project, and the Sinphuhorm project, among others. Its subsidiaries comprise PTTEP International Limited, PTTEP Siam Limited, PTTEP MEA Limited, and PTTEP Offshore Investment Company Limited.

Human Capital Management

In order to increase the organization's capability and to accelerate the competency development of the company's staff for continuous expansion of the business domestically and internationally, PTTEP has developed and improved the capability development system and process by implementing a competency-based the 70- 20-10 model of on-the-job training, coaching and mentoring, and formal training. In 2020, the Company provided training and development programs to employees through the following channels: 1) in-house and external training; 2) long-term training and development programs; and 3) master's degree scholarship programs for employees.

Sources:https://www.pttplc.com/uploads/About/Company%20Profile_250416_ENG_3.pdf

<https://www.set.or.th/set/companyprofile.do?symbol=PTT&ssoPageId=4&language=en&country=US>

MCOT Public Company Limited (MCOT)

MCOT is a state enterprise under the supervision of the Office of the Prime Minister. It was registered as a public company limited on August 17, 2004 by means of the privatization from the Mass Communication Organization of Thailand (M.C.O.T) by virtue of the Capital of State Enterprise Act B.E 2542 (1999), and it was listed on the Stock Exchange of Thailand on October 8, 2004. Later, on November 17, 2004, MCOT Plc. offered its shares in the initial public offering as a listed company on the Stock Exchange of Thailand. The company's mission in the mass communication business is to be a quality organization in the media business that engages and moves forward with the Thai society. The core businesses fully operated by MCOT Plc. involve the television business, the radio business, the Thai News Agency, and the digital terrestrial TV broadcast network and facility services. MCOT has set up two subsidiaries; namely, the Panorama Worldwide Company Limited and the Seed MCOT Company Limited. MCOT Plc. has also operated other businesses under joint operation agreements with two private operators; namely, Bangkok Entertainment Company Limited, the operator of Television Channel 3; and True Visions Cable Public Company Limited, an operator of subscription-based television.

Human Capital Management

MCOT planned for human resource development for the year 2020 to be in line with the company's vision, mission, values, corporate strategic plans, annual implementation plans, and personal information; and it has also surveyed the necessity of personal development by assessing the competency essential for driving the business. As a result, several training programs have been improved to enhance the reskills and upskills in all employees so that they are prepared for various changes

possibly affecting the company's business while they will also have working abilities and professional progress, which must be relevant to MCOT's competency as well. Further, MCOT Plc. will focus on the businesses having growth and a future, such as the digital business; therefore, in changing the theme of the business operations, the understanding among all audiences and customers must be tuned before beginning the production of contents or selling advertising to customers.

Meanwhile, creativity, a business mindset, understanding of the core business, abilities in digital and technologies, and ownership and accountability in results must be formulated so that the company's employees can attain them.

MCOT has arranged various training and development programs for its executives and officers by using a variety of training and non-training development tools. Self-learning and online courses *via* the e-learning system of MCOT Plc. have been encouraged. In addition, the middle and primary executives as well as outstanding potential officers have been assigned to obtain additional skills and learning to enhance new competence in order to always overtake various changes, adjust viewpoints, thinking processes, and working, and to create a sense of urgency, dare to present new ideas, and share them with others.

Sources: <http://investor.mcot.net/business.html>

[https://www.set.or.th/set/companyprofile.do?symbol=MCOT&ssoPageId=4
&language=en&country=US](https://www.set.or.th/set/companyprofile.do?symbol=MCOT&ssoPageId=4&language=en&country=US)



Appendix B

List of Experts

1. Professor Dr. Kalayanee Senasu

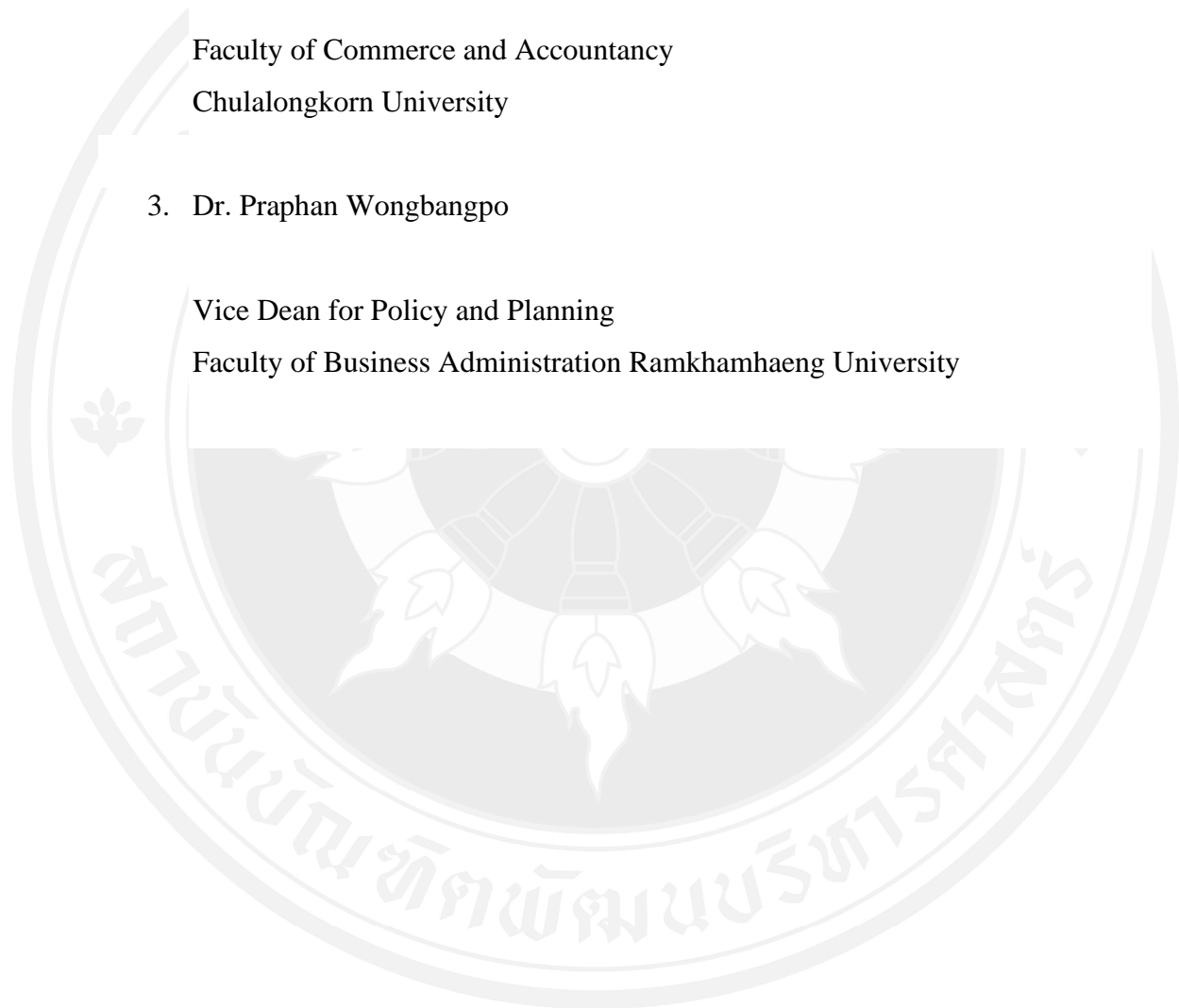
Graduate School of Human Resource Development
National Institute of Development Administration

2. Associate Professor Dr. Ananchai Kongchan

Faculty of Commerce and Accountancy
Chulalongkorn University

3. Dr. Praphan Wongbangpo

Vice Dean for Policy and Planning
Faculty of Business Administration Ramkhamhaeng University





Appendix C

Evaluation Results of The Index of Item-Objective Congruence

C1- the Survey Questionnaire

Indicators	Score of expert's opinions			Average scores	Passed/ Not passed
	A	B	C		
Strategic human resource development					
1. Developing knowledge and competence in responsible work					
1) I have always participated in training/seminars to develop the knowledge necessary for the performance of my duties.	1	1	1	1	passed
2) I have continuously attended training/seminars for new knowledge, which is the development of work-related skills (such as technological knowledge, language skills, etc.) to increase the efficiency of responsible work.	1	1	1	1	passed
3) I am always being tutored or given advice on how to perform my responsibilities from a supervisor or senior employee with experience in the job.	1	1	1	1	passed
4) I have learned about the work or problems that arise in the department during the performance of the organization that can be applied to work on a regular basis.	1	1	1	1	passed
5) I have been trained or developed myself through motivating or awareness-raising activities in order to support operational efficiency.	1	1	1	1	passed

Indicators	Score of expert's opinions			Average scores	Passed/Not passed
	A	B	C		
6) I have been trained or have developed my own emotional intelligence and responses to others' emotions to ensure efficient cooperation.	1	1	1	1	passed
7) I have participated in organizational activities that promote participation in the development of good relationships among employees in the organization.	1	1	1	1	passed
8) I have passed on the technical knowledge required to perform the work.	1	1	1	1	passed
9) I am trained to develop the managerial competencies needed to perform my job (e.g. planning, strategic decision-making, problem solving, etc.) as a supervisor or in preparation for being a supervisor.	1	1	1	1	passed
10) I have received adequate communication and description of the organization's knowledge-based work information that can be used to link strategy and performance on the job.	1	1	1	1	passed
11) Provision of in-house training can develop knowledge and the ability to meet the needs of my job duties.	1	1	1	1	passed
2. Organizational environment that supports the development of human resources					
12) I can perceive that the organization gives importance to human resource development.	1	1	1	1	passed

Indicators	Score of expert's opinions			Average scores	Passed/ Not passed
	A	B	C		
13) I perceive that the organization has a concrete and sufficient budget or expenditures for human resource development in the organization.	1	1	1	1	passed
14) Supporting subordinates to develop their skills and knowledge is one of the key roles for my supervisor.	1	0	1	0.67	passed
15) The organization has clearly established human resource policies and plans to promote employees to develop their knowledge and capabilities.	1	1	1	1	passed
16) The supervisor or senior staff is always sharing knowledge within the work unit.	1	1	1	1	passed
17) The organization encourages employees that lack the skills or expertise to keep developing.	1	1	1	1	passed
18) Appointment or promotion to a position in the organization is based on employee performance rather than on favoritism.	1	0	1	1	passed
19) I have been assessed or monitored for performance development after training through my supervisor or the human resource department.	1	1	1	1	passed

Indicators	Score of expert's opinions			Average scores	Passed/ Not passed
	A	B	C		
20) The strengths and weaknesses of employee performance obtained from employee performance assessments have been used to define guidelines for potential employee development.	1	1	1	1	passed
21) Supervisors are constantly updating me on my strengths and weaknesses regarding my responsible work.	1	1	1	1	passed
22) The organization has communicated and shared sufficient information on the human resource development plan for the organization's preparation.	1	1	1	1	passed
23) I am always assessed or followed up on the quality of the training or learning programs entrusted by the external training providers.	1	1	1	1	passed
24) Human resource departments distribute human resource development plans to each department to formulate sub-plans or assign detailed information in the plans.	1	0	0	0.33	Not passed
25) My organization is involved in providing information on needs or necessities related to employee development leading to the formulation of human resource development policies in the organization.	1	1	0	0.67	passed

Indicators	Score of expert's opinions			Average scores	Passed/ Not passed
	A	B	C		
26) The performance of human resource departments in charge of employee development with various units in the organization goes smoothly.	1	1	0	0.67	passed
27) The management of the organization regularly participates in knowledge-promoting activities held within the organization.	1	1	0	0.67	passed
28) The human resource department has a process to provide adequate training for the development of employees' potential.	1	1	0	0.67	passed
29) The human resource development can justify whether to provide employee training or not.	1	1	0	0.67	passed
30) The supervisors in the department are passionate about encouraging employees to develop their job potential in the organization.	1	1	1	1	passed
31) My organization provides employees with opportunities to learn and develop their talents in order to keep pace with changes in work.	1	1	1	1	passed
32) My organization is planning to develop the knowledge and skills of the staff in advance, rather than engaging them for the urgent needs of the operations.	1	1	1	1	passed

Indicators	Score of expert's opinions			Average scores	Passed/ Not passed
	A	B	C		
Employee commitment					
1. Continuance commitment					
1) If I have to decide to leave the organization, I will feel that it is a huge loss in life.	1	1	1		passed
2) I will be very happy to work with this organization until my retirement.	1	1	1		passed
3) I think it is appropriate for me to continue working with this organization.	1	1	1		passed
2. Affective commitment					
4) If there is a problem in the organization, I feel that this is my problem as well.	1	1	1		passed
5) I like to talk positively to outsiders about various matters related to my organization.	1	1	1		passed
6) I feel that I am part of the organization.	1	1	1		passed
7) I feel a bond with the organization as an employer.	1	1	1		passed
8) I will not leave the organization at this time because I still feel attached to my colleagues in the organization.	1	1	1	1	passed
3. Normative commitment					
9) The organization I work for has values to which I should be loyal.	1	1	1	1	passed

Indicators	Score of expert's opinions			Average scores	Passed/ Not passed
	A	B	C		
10) My organization makes employees willing to work toward achieving their goals.	1	1	1	1	passed
11) If I decide to leave the organization now, the work under my responsibility will be affected.	1	1	1	1	passed
12) I feel that the organization means a lot to my professional life.	1	1	1	1	passed
Employee job satisfaction					
1. Nature of work					
1) I am given the opportunity to try to work of my own volition.	1	1	1	1	passed
2) I am able to carry out my responsibilities without feeling unethical.	1	1	1	1	passed
3) I have the opportunity to work on my own without being supervised.	1	1	1	1	passed
4) I have the opportunity to work or perform duties in what I do best.	1	1	1	1	passed
5) The work environment is appropriate for the performance of my duties.	1	1	1	1	passed
2. Compensation and benefits					
6) The present level of remuneration and benefits motivates me to work with the organization.	1	1	1	1	passed

Indicators	Score of expert's opinions			Average scores	Passed/ Not passed
	A	B	C		
7) I perceive that the remuneration and benefits received are fair enough compared with those of the other employees working at the same level.	1	1	1	1	passed
8) My organization has a remuneration policy commensurate with employee responsibilities.	1	1	0	0.67	passed
9) I perceive that the organization is aware of the work that employees deliver to the organization, which is reflected in the form of bonuses or other benefits.	1	1	1	1	passed
10) I perceive that the level of remuneration and benefits received is in line with the duties and workload assigned.	1	1	1	1	passed
3. Attitudes toward supervisors					
11) I perceive that my supervisor is the one that has the knowledge and skills necessary to oversee the operation.	1	1	0	0.67	passed
12) I receive advice and attention in the work for which I am responsible from my supervisor.	1	1	1	1	passed
13) The management of the organization has sufficient knowledge and capability to lead the organization to achieve its goals.	1	1	1	1	passed
14) I am always informed of feedback on my performance from my supervisor.	1	1	0	0.67	passed

Indicators	Score of expert's opinions			Average scores	Passed/ Not passed
	A	B	C		
15) My supervisor and I have a good understanding of how to work with each other.	1	1	1	1	passed
2. Relation with co-workers					
16) I have been given the opportunity to assist with the work of my colleagues in the organization.	1	1	1	1	passed
17) My colleagues are very cooperative in the work.	1	1	1	1	passed
18) I often have the opportunity to guide my colleagues.	1	1	1	1	passed
19) I am willing to cooperate when my colleagues in the other departments request my help to assist with the organization's work.	1	1	1	1	passed
3. Opportunities for promotion					
20) I have the opportunity to progress in my career in the organization.	1	1	1	1	passed
21) My organization values and allows employees within the organization to grow in their roles.	1	1	1	1	passed
22) Employees in the organization with good performance have enough opportunities for growth in their job duties.	1	1	1	1	passed
Career development needs					
1. Need for achievement					

Indicators	Score of expert's opinions			Average scores	Passed/Not passed
	A	B	C		
1) I often set goals for challenging tasks.	1	1	1	1	passed
2) I am always looking for better or more efficient ways to work.	1	1	1	1	passed
3) I enjoy challenging work.	1	1	1	1	passed
4) Getting feedback on the work I do is extremely important to my performance.	1	1	1	1	passed
5) I will do my best whether the work is rewarding and worthwhile for my needs or not.	1	1	1	1	passed
2. Need for power					
6) I can always explain or persuade my co-workers to believe my ideas.	1	1	1	1	passed
7) I feel confident when I am in control of the other co-workers' operations.	1	1	1	1	passed
8) Job opportunities are important to me.	1	1	1	1	passed
9) I enjoy having the opportunity to supervise my coworkers or work directions in the organization.	1	1	1	1	passed
3. Need for affiliation					
10) My co-workers often share problems with me at work because they feel that I can help them.	1	1	1	1	passed
11) I prefer to have lunch with my co-workers rather than alone.	1	1	1	1	passed

Indicators	Score of expert's opinions			Average scores	Passed/Not passed
	A	B	C		
12) Being recognized by my organization's employees is important to me.	1	1	1	1	passed
Employee performance	1	1	1	1	passed
1. Task performance	1	1	1		passed
1) My job responsibilities are always considered by my supervisor to be above the evaluation criteria.	1	0	1	0.67	passed
2) I can always accomplish my work within the specified timeframe.	1	1	1	1	passed
3) I understand very well the goals or results that the organization wants to achieve from the assignment.	1	1	1	1	passed
4) I can prioritize my assigned jobs well.	1	1	1	1	passed
2. Contextual performance					
5) I can continue the work of others without feeling burdensome.	1	1	1	1	passed
6) I can work harder than usual or more than I need to.	1	1	1	1	passed
7) I am enthusiastic when given more challenging assignments.	1	1	1	1	passed
8) I often help my co-workers without waiting for their request.	1	1	1	1	passed

Indicators	Score of expert's opinions			Average scores	Passed/Not passed
	A	B	C		
9) I often communicate with concerned coworkers before taking action on matters that affect them.	1	1	1	1	passed
3. Adaptive performance					
10) I am able to accomplish important tasks in urgent situations.	1	1	1	1	passed
11) My co-workers often ask for my opinion when a difficult situation or a new problem arises.	1	1	1	1	passed
12) My co-workers or supervisors often agree on new suggestions or solutions in my work.	1	1	1	1	passed
13) I can understand my co-workers' views in other areas to improve ways to respond to them.	1	1	1	1	passed
14) I can learn new ways to better cooperate with others.	1	1	1	1	passed

C2-The In-Depth-Interview Questions

Objectives and questions	Expert's opinions	Average score	Passed/ Not passed			
Objective 1						
To identify the interviewee's primary information and interview information						
Full name _____						
Organization _____						
Position in the organization _____						
Tenure in the organization _____						
Date and time of the interview _____						
Place of the interview _____						
Objective 2						
In order to obtain an idea of the elements of strategic human resource development in the developmental context (DC observed variable) (research question 1.2.5)						
Q1	From your point of view, how should the developmental context of strategic human resource development (which the organization must provide learning and development for employees both inside and outside the organization) focus on the development of knowledge, abilities and skills of employees at different levels? (e.g., knowledge and ability in the job responsibilities, emotional intelligence, work attitude, administrative ability, communication skills and other areas (if any).	1	1	1	1	passed
	1.1 Employees at the operating level					
	1.2 Employees at the supervisory level					
	1.3 Employees at managerial level or middle-management level and above					

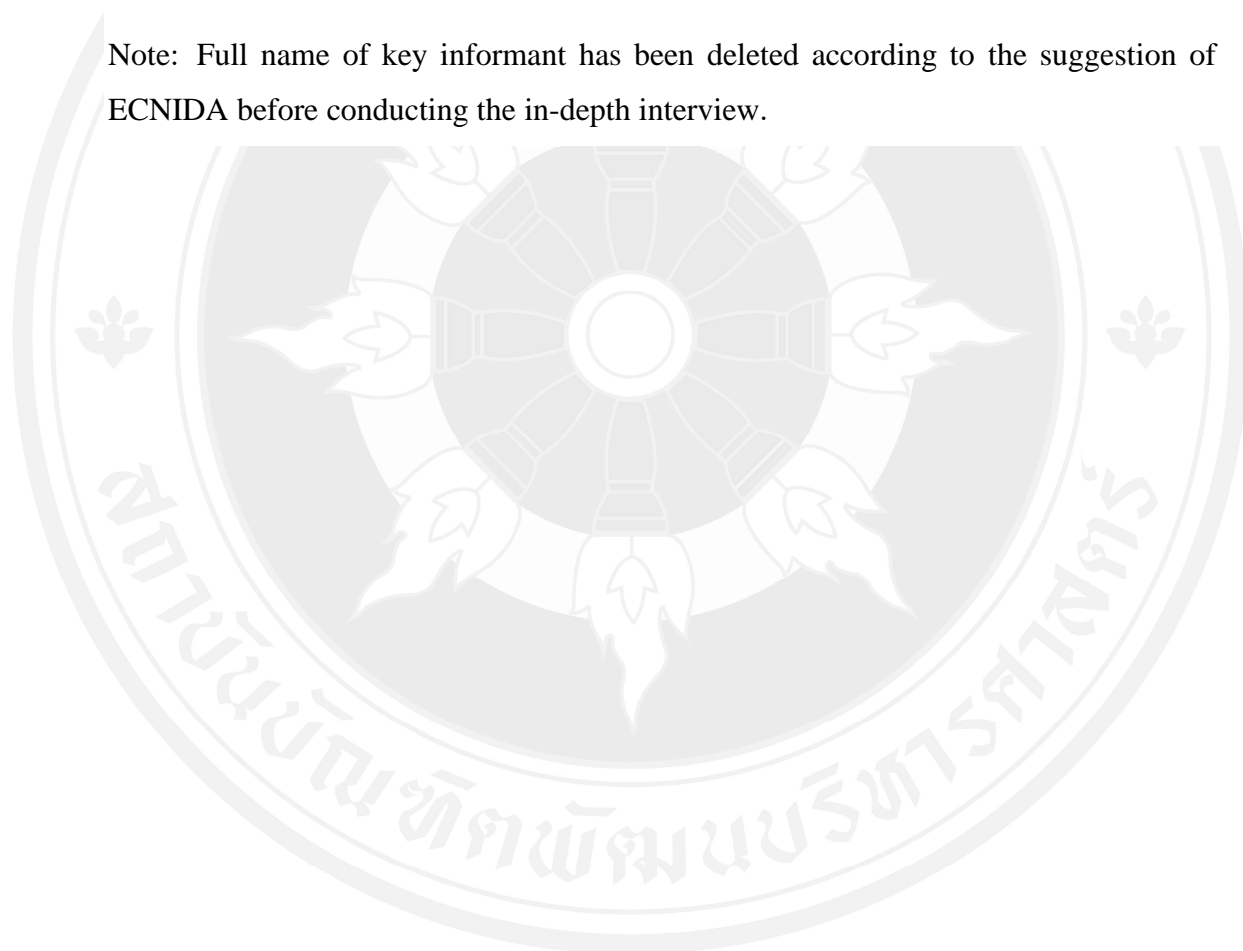
Objectives and questions	Expert's opinions	Average score	Passed/ Not passed		
Objective 3					
To get an idea of the elements of strategic human resource development in the organizational context in order to create an environment that supports the development of human resources (OC observed variable) (research question 1.2.5 and objective 1.3.3)					
Q2 In terms of organizational directions, from your point of view, how should they be established to create a suitable environment for human resource development in various areas of the organization? (e.g., support from top management, HR policies and plans, the roles of the human resource professionals, supervisor's roles, assessment of learning outcomes and other areas (if any)).	1	1	1	1	passed
Objective 4					
To study the causal factors of employees involved in the relationship between strategic human resource development and the employee performance in the state enterprises listed on the Stock Exchange of Thailand (observed variables for JS, EC, CDN) (research questions 1.2.2 and 1.2.4 and objectives 1.3.1 and 1.3.2)					
Q3 From your experience and perspective, how does job satisfaction (i.e., nature of responsible job, compensation and benefits, colleagues, supervisors, and promotion opportunities) influence employees to focus on performing or creating results for the organization?	1	1	1	1	passed
Q4 How much do you think that employee commitment to the work and the organization (i.e., continuance commitment, affiliative	1	1	1	1	passed

Objectives and questions	Expert's opinions	Average score	Passed/ Not passed
<p>commitment and normative commitment) helps to support the performance of employees?</p> <p>Q5 From your experience and perspective, how can employees who qualify, strive, or want to be successful in their career achieve their performance when they are learned and developed in their job duties?</p>	1 1 1	1	passed
Objective 5			
To receive information and opinions on the strategic human resource development of state enterprises listed on the Stock Exchange of Thailand and their characteristics (research question 1.2.5 and objective 1.3.4)			
<p>Q6 How do you think that the strategic human resource development of the organization, as a state enterprise listed on the Stock Exchange of Thailand, should have an action plan that can be linked to the vision, mission and strategy of the organization?</p>	1 1 1	1	passed
Objective 6			
In order to acknowledge the ideas and perspectives on the factors that support the creation of strategic human resource development guidelines affecting the enhancement of the performance of state enterprise employees in the Stock Exchange of Thailand (research questions 1.2.2 and 1.2.4)			
<p>Q7 How do you think organizations should have a direction for building or improving employee satisfaction to help support strategic human resource development and impact employee</p>	1 1 1	1	passed

Objectives and questions	Expert's opinions	Average score	Passed/ Not passed
performance better?			
Q8 How do you think organizations can create employee commitment in work and organization to promote those who have been developed and trained in delivering good performance to the organization?	1 1 1	1	passed
Q9 From your point of view, how can the organization lay out guidelines to encourage employees with career advancement or position requirements to maintain or enhance their commitment to performance in order to deliver good performance to the organization?	1 1 1	1	passed
Objective 7			
To acknowledge the challenges, obstacles, and suggestions for strategic human resource development that are in line with the strategies and goals of Thai state enterprises (objective 1.3.3)			
Q10 In the past, were there problems with the human resource development of state enterprises or not, and how strategic was it to do so?	1 1 0	0.67	passed
Q11 Do you think that there are other important factors or elements in addition to job satisfaction and job commitment that can encourage or support the employees who have been developed and trained to be committed to creating more efficient performance for the organization? If yes, what are such factors?	1 1 0	0.67	passed

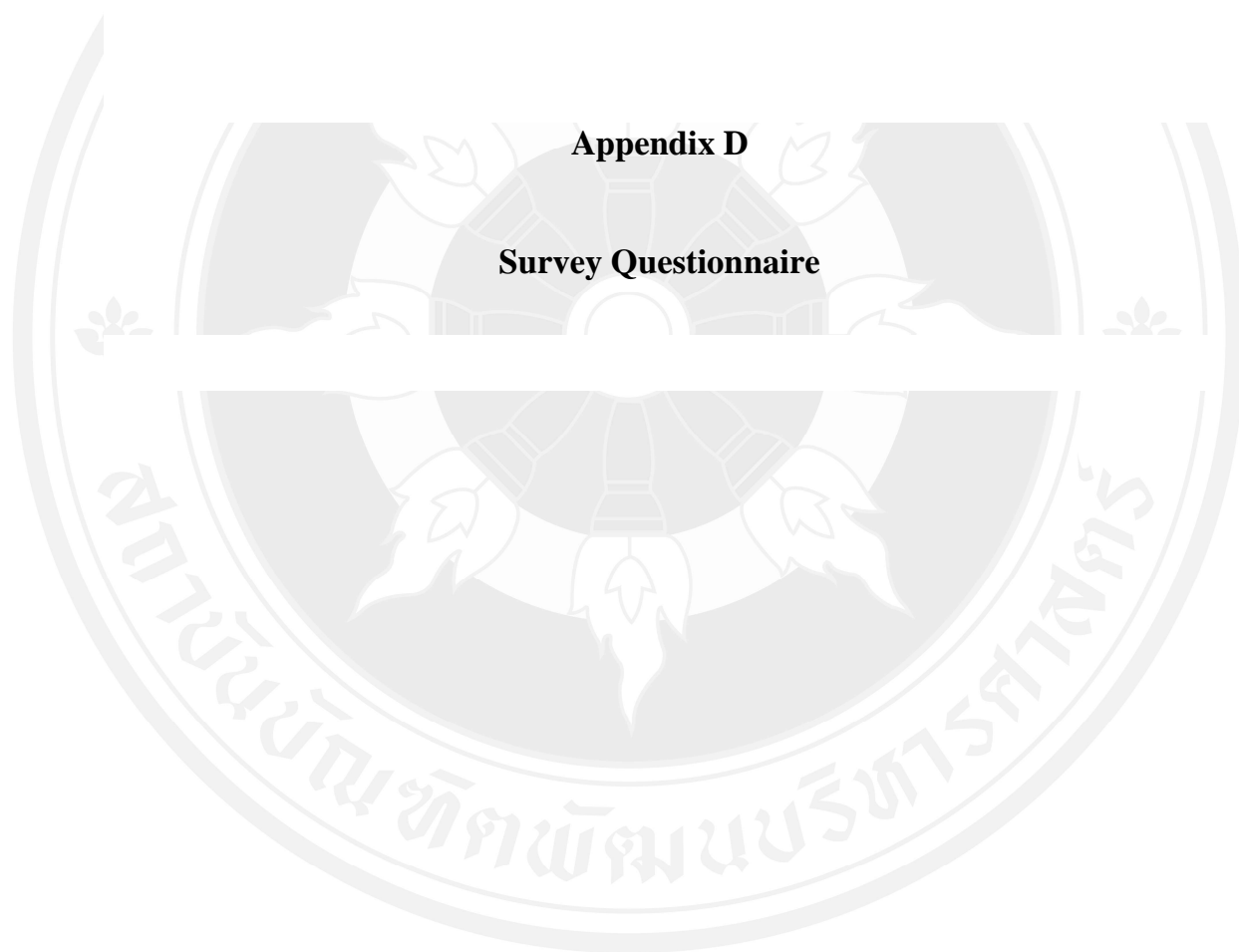
Objectives and questions	Expert's opinions	Average score	Passed/ Not passed
Q12 Do you have any comments or suggestions for the strategic human resource development in public companies that are listed on the Stock Exchange of Thailand and other types of organizations, such as private and government organizations?	1 1 0	0.67	passed

Note: Full name of key informant has been deleted according to the suggestion of ECNIDA before conducting the in-depth interview.



Appendix D

Survey Questionnaire



**A Causal Relationship Between Strategic Human Resource Development Design
and Employee Performance of State Enterprises Listed on
the Stock Exchange of Thailand**

This questionnaire is part of the study of the Doctor of Public Administration program, National Institute of Development Administration. It aims to understand the causal relationship between the strategic human resource development design and the employee performance of state enterprises listed on the Stock Exchange of Thailand. The result of this study can lead to the search for strategic human resource development guidelines that support operational efficiency of employees.

Therefore, I, Mr. Phaitoon Inuthai, as a researcher, would like to ask for your help in answering this questionnaire. The information provided by each respondent will not disclose any individual information. The data collected will be included in the overall analysis and reporting process for academic contributions and will be used to provide recommendations for organizations in developing operational efficiency, especially for state enterprises in Thailand.

However, if you have any questions, please contact the Faculty of Public Administration, National Institute of Development Administration, telephone number 02-374-4977 or call the researcher directly at 089-777-6988 or e-mail: p_inuthai@yahoo.com.

Thank you very much.

Phaitoon Inuthai

Part 1: General information**Note: Please provide the following details regarding the respondent**

1. The organization you are currently employed with
 - PTT PLC Airports of Thailand PLC
 - MCOT PLC PTT Exploration and Production PLC
2. Sex
 - Male Female
3. Age
 - Below 30 years 30-39 years
 - 40-49 years Above 50 years
4. Education level
 - Undergraduate or lower Bachelor's degree or equivalent
 - Master's degree or higher Others (please specify)
5. Marital status
 - Single Married
 - Divorced
6. Period of employment with the organization
 - Less than 5 years 5-10 years
 - 10-15 years 15-20 years
 - More than 20 years
7. Job level
 - Staff/Officer
 - Supervisor level (team leader, department manager, etc.)
 - Management level (section manager, division manager, senior manager, etc.)
8. Experience in current position
 - Less than 5 years 5-10 years
 - 10-15 years More than 15 years

9. Average monthly income

- Below 25,000 baht 25,000 – 50,000 baht
 50,001 – 75,000 baht 75,001 – 100,000 baht
 100,001 baht or above

Part 2 Information on employee opinions on activities related to the performance of the organization

Note: Please review the following questions and mark X for the item that most closely matches your opinion.

- Level of opinion:
- Score 5 Strongly Agree
- Score 4 Agree
- Score 3 Neither Agree
- Score 2 Disagree
- Score 1 Strongly Disagree

Section 2: Opinions on human resource development in the organization

Strategic human resource development	Levels of opinion				
	5	4	3	2	1
1. Developing knowledge and competence in responsible work					
1) I have always participated in training/seminars to develop the knowledge necessary for the performance of my duties.	5	4	3	2	1
2) I have continuously attended training/seminars for new knowledge, which is the development of work-related skills (such as technological knowledge, language skills, etc.) to increase the efficiency of responsible work.	5	4	3	2	1

Strategic human resource development	Levels of opinion				
	5	4	3	2	1
3) I am always being tutored or given advice on how to perform my responsibilities from a supervisor or senior employee with experience in the job.	5	4	3	2	1
4) I have learned about the work or problems that arise in the department during the performance of the organization that can be applied to work on a regular basis.	5	4	3	2	1
5) I have been trained or have developed myself through motivating or awareness-raising activities in order to support operational efficiency.	5	4	3	2	1
6) I have been trained or developed my own emotional intelligence and responses to others' emotions to ensure efficient cooperation.	5	4	3	2	1
7) I have participated in organizational activities that promote participation in the development of good relationships among employees in the organization.	5	4	3	2	1
8) I have passed on the technical knowledge required to perform the work.	5	4	3	2	1
9) I am trained to develop the managerial competencies needed to perform my job (e.g. planning, strategic decision-making, problem-solving, etc.) as a supervisor or in preparation for being a supervisor.	5	4	3	2	1

Strategic human resource development	Levels of opinion				
	5	4	3	2	1
10) I have received adequate communication and description of the organization's knowledge-based work information that can be used to link strategy and performance on the job.	5	4	3	2	1
11) Provision of in-house training can develop knowledge and the ability to meet the needs of my job duties.	5	4	3	2	1
2. Organizational environment that supports the development of human resources					
12) I can perceive that the organization gives importance to human resource development.	5	4	3	2	1
13) I perceive that the organization has a concrete and sufficient budget or expenditure for human resource development in the organization.	5	4	3	2	1
14) Supporting subordinates to develop their skills and knowledge is one of the key roles for my supervisor.	5	4	3	2	1
15) The organization has clearly established human resource policies and plans to promote employees to develop their knowledge and capabilities.	5	4	3	2	1
16) The supervisor or senior staff is always sharing knowledge within the work unit.	5	4	3	2	1
17) The organization encourages employees that lack the skills or expertise to keep developing.	5	4	3	2	1

Strategic human resource development	Levels of opinion				
	5	4	3	2	1
18) Appointment or promotion to a position in the organization is based on employee performance rather than on favoritism.	5	4	3	2	1
19) I have been assessed or monitored for performance development after training through my supervisor or the human resource department.	5	4	3	2	1
20) Strengths and weaknesses of employee performance obtained from employee performance assessments have been used to define guidelines for potential employee development.	5	4	3	2	1
21) Supervisors are constantly updating me on my strengths and weaknesses regarding my responsible work.	5	4	3	2	1
22) The organization has communicated and shared sufficient information on the human resource development plan for the organization's preparation.	5	4	3	2	1
23) I am always assessed or followed up on the quality of the training or learning programs entrusted by the external training providers.	5	4	3	2	1
24) My organization is involved in providing information on needs or necessities related to employee development leading to the formulation of human resource development policies in the organization.	5	4	3	2	1

Strategic human resource development	Levels of opinion				
	5	4	3	2	1
25) The performance of human resource departments in charge of employee development with various units in the organization goes smoothly.	5	4	3	2	1
26) The management of the organization regularly participates in knowledge-promoting activities held within the organization.	5	4	3	2	1
27) The human resource department has a process to provide adequate training for the development of employees' potential.	5	4	3	2	1
28) The human resource development can justify whether to provide employee training or not.	5	4	3	2	1
29) The supervisors in the department are passionate about encouraging employees to develop their job potential in the organization.	5	4	3	2	1
30) My organization provides employees with opportunities to learn and develop their talents in order to keep pace with changes in work.	5	4	3	2	1
31) My organization is planning to develop the knowledge and skills of the staff in advance, rather than engaging them for the urgent needs of the operations.	5	4	3	2	1

Section 3: Opinions on the work commitments I currently perform at the organization

Employee commitment	Levels of opinion				
	5	4	3	2	1
1. Continuance commitment					
1) If I have to decide to leave the organization, I will feel that it is a huge loss in life.	5	4	3	2	1
2) I will be very happy to work with this organization until my retirement.	5	4	3	2	1
3) I think it is appropriate for me to continue working with this organization.	5	4	3	2	1
2. Affective commitment					
4) If there is a problem in the organization, I feel that this is my problem as well.	5	4	3	2	1
5) I like to talk positively to outsiders about various matters related to my organization.	5	4	3	2	1
6) I feel that I am part of the organization.	5	4	3	2	1
7) I feel a bond with the organization as an employer.	5	4	3	2	1
8) I will not leave the organization at this time because I still feel attached to my colleagues in the organization.	5	4	3	2	1
3. Normative commitment					
9) The organization I work for has values to which I should be loyal.	5	4	3	2	1
10) My organization makes employees willing to work toward achieving their goals.	5	4	3	2	1

Employee commitment	Levels of opinion				
	5	4	3	2	1
11) If I decide to leave the organization now, the work under my responsibility will be affected.	5	4	3	2	1
12) I feel that the organization means a lot to my professional life.	5	4	3	2	1

Section 4: Opinion on job satisfaction

Employee job satisfaction	Levels of opinion				
	5	4	3	2	1
1. Nature of Work					
1) I am given the opportunity to try to work of my own volition.	5	4	3	2	1
2) I will be able to work as per my responsibilities without feeling unethical.	5	4	3	2	1
3) I have the opportunity to work on my own without being supervised.	5	4	3	2	1
4) I have the opportunity to work or perform duties in what I do best.	5	4	3	2	1
5) The work environment is appropriate for the performance of my duties.	5	4	3	2	1
2. Compensation and benefits					
6) The present level of remuneration and benefits motivates me to work with the organization.	5	4	3	2	1
7) I perceive that the remuneration and benefits received are fair enough compared with those of	5	4	3	2	1

Employee job satisfaction	Levels of opinion				
	5	4	3	2	1
the other employees working at the same level.					
8) My organization has a remuneration policy commensurate with employee responsibilities.	5	4	3	2	1
9) I perceive that the organization is aware of the work that employees deliver to the organization, which is reflected in the form of bonuses or other benefits.	5	4	3	2	1
10) I perceive that the level of remuneration and benefits received is in line with the duties and workload assigned.	5	4	3	2	1
4. Attitudes toward supervisors					
11) I perceive that my supervisor is the one that has the knowledge and skills necessary to oversee the operation.	5	4	3	2	1
12) I receive advice and attention in the work for which I am responsible from my supervisor.	5	4	3	2	1
13) The management of the organization has sufficient knowledge and capability to lead the organization to achieve its goals.	5	4	3	2	1
14) I am always informed of feedback on my performance from my supervisor.	5	4	3	2	1
15) My supervisor and I have a good understanding of how to work with each other.	5	4	3	2	1
4. Relation with co-workers					
16) I have been given the opportunity to assist with	5	4	3	2	1

Employee job satisfaction	Levels of opinion				
	5	4	3	2	1
the work of my colleagues in the organization.					
17) My colleagues are very cooperative in working.	5	4	3	2	1
18) I often have the opportunity to guide my colleagues.	5	4	3	2	1
19) I am willing to cooperate when my colleagues in the other departments request my help to assist with the organization's work.	5	4	3	2	1
5. Opportunities for promotion					
20) I have the opportunity to progress in my career in the organization.	5	4	3	2	1
21) My organization values and allows employees within the organization to grow in their roles.	5	4	3	2	1
22) Employees in the organization with good performance have enough opportunities for growth in their job duties.	5	4	3	2	1

Section 5: Career development needs of employees

Career development needs	Levels of opinion				
	5	4	3	2	1
1. Need for achievement					
1) I often set goals for challenging tasks.	5	4	3	2	1
2) I am always looking for better or more efficient ways to work.	5	4	3	2	1
3) I enjoy challenging work.	5	4	3	2	1
4) Getting feedback on the work I do is extremely important to my performance.	5	4	3	2	1
5) I will do my best whether the work is rewarding and worthwhile for my needs or not.	5	4	3	2	1
2. Need for power					
6) I can always explain or persuade my co-workers to believe my ideas.	5	4	3	2	1
7) I feel confident when I am in control of the other co-workers' operations.	5	4	3	2	1
8) Job opportunities are important to me.	5	4	3	2	1
9) I enjoy having the opportunity to supervise my coworkers or work directions in the organization.	5	4	3	2	1
3. Need for affiliation					
10) My co-workers often share problems with me at work because they feel that I can help them.	5	4	3	2	1
11) I prefer to have lunch with my co-workers rather than alone.	5	4	3	2	1

Career development needs	Levels of opinion				
	5	4	3	2	1
12) Being recognized by my organization's employees is important to me.	5	4	3	2	1

Section 6: Performance results of employees in the state enterprises listed on the Stock Exchange of Thailand

Performance results	Levels of opinion				
	5	4	3	2	1
1. Task performance					
1) My job responsibilities are always considered by my supervisor to be above the evaluation criteria.	5	4	3	2	1
2) I can always accomplish my work within the specified timeframe.	5	4	3	2	1
3) I understand very well the goals or results that the organization wants to achieve from the assignment.	5	4	3	2	1
4) I can prioritize my assigned jobs well.	5	4	3	2	1
2. Contextual performance					
5) I can continue the work of others without feeling burdensome.	5	4	3	2	1
6) I can work harder than usual or more than I need to.	5	4	3	2	1
7) I am enthusiastic when given more challenging assignments.	5	4	3	2	1

Performance results	Levels of opinion				
	5	4	3	2	1
8) I often help my coworkers without waiting for their request.	5	4	3	2	1
9) I often communicate with concerned coworkers before taking action on matters that affect them.	5	4	3	2	1
3. Adaptive performance					
10) I am able to accomplish important tasks in urgent situations.	5	4	3	2	1
11) My coworkers often ask for my opinion when a difficult situation or a new problem arises.	5	4	3	2	1
12) My coworkers or supervisors often agree on new suggestions or solutions in my work.	5	4	3	2	1
13) I can understand my coworkers' views in other areas to improve ways to respond to them.	5	4	3	2	1
14) I can learn new ways to better cooperate with others.	5	4	3	2	1

Part 7: Additional comments and suggestions

Thank you for completing the survey.



Appendix E

In-Depth Interview Questions

**A Causal Relationship Between Strategic Human Resource Development Design
and Employee Performance of State Enterprise Listed on
the Stock Exchange of Thailand**

Part 1: Basic information of the interviewee

Organization _____

Position in the organization _____

Tenure in the organization _____

Date and time of the interview _____

Place of the interview _____

Part 2: Open-ended questions on the factors related to the strategic human resource development of state enterprises listed on the Stock Exchange of Thailand

1. From your point of view, how should the developmental context of strategic human resource development (where the organization must provide learning and development for employees both inside and outside the organization) focus on the development of knowledge, abilities, and skills of employees at different levels? (e.g. Knowledge and ability in the job responsibilities, emotional intelligence, work attitude, administrative ability, communication skills and other areas (if any)).

1.1 Employees at the operating level

1.2 Employees at the supervisory level

1.3 Employees at the managerial level or middle-management level and above

2. In terms of organizational directions, from your point of view, how should they be established to create a suitable environment for human resource development in various areas of the organization? (e.g. support from top management, HR policies and plans, the roles of the human resource professionals, supervisor's roles, assessment of learning outcomes and other areas (if any)).

3. From your experience and perspective, how does job satisfaction (i.e. nature of responsible job, compensation and benefits, co-workers, supervisors, and promotion opportunities) influence employees to focus on performing or creating results for the organization?

4. How much do you think that employee commitment to the work and the organization (i.e. continuance commitment, affiliative commitment and normative commitment) helps to support the performance of employees?

5. From your experience and perspective, how can employees that qualify, strive, or want to be successful in their career achieve their performance when they are learned and developed in their job duties?

6. How do you think that the strategic human resource development of the organization, as a state enterprise listed on the Stock Exchange of Thailand, should have an action plan that can be linked to the vision, mission and strategy of the organization?

7. How do you think organizations should have a direction for building or improving employee satisfaction to help support strategic human resource development and impact employee performance better?

8. How do you think organizations can create employee commitment in work and in the organization to promote those that have been developed and trained in delivering good performance to the organization?

9. From your point of view, how can the organization lay out guidelines to encourage employees with career advancement or position requirements to maintain or enhance their commitment to performance in order to deliver good performance to the organization?

Part 3: Open-ended questions, suggestions, problems, and obstacles in the strategic human resource development of state enterprises listed on the Stock Exchange of Thailand

10. In the past, were there problems with the human resource development of state enterprises or not, and can such development be considered strategic development?

11. Do you think that there are other important factors or elements in addition to job satisfaction and job commitment that can encourage or support the employees that have been developed and trained to be committed to creating more efficient performance for the organization? If yes, what are such factors?

12. Do you have any comments or suggestions for the strategic human resource development in public enterprises that are listed on the Stock Exchange of Thailand and other types of organizations, such as private and government organizations?

BIOGRAPHY

Name-Surname

Mr.Phaithoon Inuthai

Academic Background

- Bachelor of Business Administration (Finance and Banking) Ramkhamhaeng University, Bangkok, Thailand in 1996
- Master of Business Administration (Finance) Ramkhamhaeng University, Bangkok, Thailand in 2001
- Master of Science in Corporate Governance Chulalongkorn University, Bangkok, Thailand in 2009
- Master of Arts in English for Professional Development National Institute of Development Administration, Bangkok, Thailand in 2016

Experience

2001-Present (2022)
General Manager of Internal Audit Office
Secretary to the Audit Committee
Secretary to the Risk Management Committee
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