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**AN ASSESSMENT OF INTERNAL STRUCTURAL ADJUSTMENT
FACTORS AFFECTING ORGANIZATIONAL PERFORMANCE: A
CASE STUDY OF ENERGY ENTERPRISES IN THAILAND AFTER
THE ECONOMIC CRISIS IN 1997**

By

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**A Dissertation Submitted in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy in Development Administration**

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Abstract

The study focuses on major issues related to the organizational performance of energy enterprises after the 1997 economic crisis. The aim is to: 1) evaluate critical internal factors affecting the organizational performance of energy enterprises in Thailand after the economic crisis 1997; 2) study cause-effect relationships among internal factors affecting the organizational performance of those energy enterprises; 3) create an appropriate linear structural relationship equation of the internal factors affecting organizational performance in order to explain the cause-effect relationships affecting the organizational performance in those energy enterprises.

The four hypotheses proposed in this study are:

1: After the 1997 economic crisis in Thailand, the organizational performance of energy enterprises would be positively influenced by organizational structure, management style, technology, the business system and the functional strategy-value chain in related to financial performance.

2: After the 1997 economic crisis, the organizational performance of energy enterprises related to customers would be positively influenced by organizational structure, management style, technology, the business system and the functional strategy-value chain.

3: After the 1997 economic crisis, the organizational performance of energy enterprises in terms of the internal business process would be positively influenced by

organizational structure, management style, technology, the business system and the functional strategy-value chain.

4: After the 1997 economic crisis, organizational performance in terms of learning and growth would be positively influenced by organizational structure, management style, technology, the business system and the functional strategy- value chain.

The study makes use of both primary and secondary data. Primary data were obtained from a questionnaire used during interviews with top executives of energy enterprises covering petroleum, electricity, gas, other businesses related to energy manufacturers, distributors, their subsidiaries, and joint ventures. Secondary data were obtained from other sources, such as the Stock Exchange of Thailand, financial statements, the Ministry of Commerce, etc. Multi-stage sampling was used to obtain data from 416 executives (response rate of 69.3 per cent) representing 52 organizations in the Thai energy enterprises. The SPSS and AMOS programs were used to test the research hypotheses and create the linear structural relationship equation model (LISREL) to explain the cause-effect relationships among the factors affecting organizational performance in energy enterprises in Thailand.

The main findings of this study were as follows:

1. Testing for hypothesis one revealed that after the 1997 economic crisis, the management style had direct positive effects on the percentage change in earnings per share and on the percentage change of net income/sales; while technology had direct positive effects on the current asset ratio and net income per total assets. The functional strategy, which consisted of supporting activities of the value chain in terms of firm infrastructure and procurement, had positive direct effects on net income/sales and net income/asset. However, the complexity of organizational structure had direct negative effects on earnings per share of the firms. The functional strategy-primary activities of the value chain in terms of logistics, as well as supporting activities in terms of firm infrastructure had direct negative effects on enterprises' current asset ratio after the economic crisis. As a result, part of the hypothesis can be accepted.

2. Testing for hypothesis two revealed that technology and research and development were positive factors directly affecting market share. Organizational

structure was also a negative factor directly affecting percentage change in sales after the 1997 economic crisis. This result indicated acceptance for part of hypothesis two.

3. Testing for hypothesis three found that technology had a positive direct and indirect influence on the variance of the dependent variable in terms of percentage change in total assets. This result indicated that hypothesis three could be partially accepted.

4. Testing for hypothesis four found that reengineering the business process had direct and indirect positive effects on the variance in employee turnover. However, reengineering the business process had direct and indirect negative effects on the variance in rates of absenteeism as the dependent variable. This result indicated that hypothesis three could be partially accepted.

According to the four hypotheses testing, this study makes three recommendations. Firstly, there should be the single organization from the public sector to be responsible for technology development concerned with the energy-related industry. This organization has authority in allocating the research and development budget, the development of human resource, elimination of the structural impediments to improve the energy industry competitiveness.

Secondly, the top management should maintain and develop the competitive advantage on technology, management style, and business process reengineering to enhance the organizational performance of energy sector.

Thirdly, top management should also develop the functional strategy—value chain on supporting activities (human resource, firm-infrastructure, research and development to gain the competitive advantage of energy sector.

Finally, directions for future research are also suggested to gain a broader understanding of factors affecting organizational performance in energy sector.

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Vichak Phongpetra
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