

of testing hypotheses of the study, the data was primarily analyzed by employing the analysis of variance (ANOVA), the structural equation model (SEM), and other appropriate statistical approaches.

Results

There were statistically significant differences in the level of affective commitment (AC) and normative commitment (NC) between the three energy public enterprises, whereas the lack of a structural type difference holds for only continuance commitment (CC). Table 2 reported ANOVA tests for all types of organizational commitment.

The affective commitment score statistically differed by organization types, given the $F=22.55$ ($P=.00$). That is, the AC level of organization Type III (4.06 with SD of .53) is greater than organization Type II (3.88 with SD of 3.88) and in the mean time, the AC level of organization Type II is greater than organization Type I (3.62 with SD of .70). Hence, *Hypothesis 1* is empirically confirmed by this study.

For the normative commitment, the analysis result reported that NC score statistically differed by organization type, given the $F=9.73$ ($P=.00$). That is, the NC level of organization Type II and Type III are greater than those in organization Type I, while there is no difference between Type II and Type III. Therefore, *Hypothesis 3* is partially accepted.

In contrast to AC and NC, however, the result of the ANOVA tests reported that only the continuance commitment score did not statistically differ by organization type, given the $F=.66$ ($P=.51$). As a result, *Hypothesis 2* is not empirically supported by this study.

Table 2: ANOVA Results of Three Types of Organizational Commitment

	Type I		Type II		Type III		P-value
	Mean	SD	Mean	SD	Mean	SD	
Affective commitment	3.62	0.70	3.88	0.65	4.06	0.53	.00**
Continuance commitment	3.34	0.64	3.39	0.72	3.30	0.77	0.51
Normative commitment	3.52	0.57	3.79	0.63	3.69	0.62	.00**

** *Statically significant at the $p < .01$ level (2-tailed)*

In order to investigate the employees' perceptions in specific commitment antecedents between three types of transformed public enterprises, an ANOVA was also employed. The average scores and p-value of the change-related behaviors, human resource management practices, and work-related values for all three types of public organization are provided in Table 3 below.

Table 3: Average Scores of Antecedent Variables of Different Organizations

Variables	Type I	Type II	Type III	P-Value
Change-related Factors				
Reform policy perception	3.31	3.13	3.82	.000**
Change-related Communication	3.25	3.22	3.47	.000**
Job insecurity	2.94	2.93	2.84	.319
Role conflict	2.99	2.71	2.57	.000**
Role ambiguity	3.80	3.76	3.80	.717
HRM Practices				
Payment system	3.22	3.36	3.38	.023*
Reward & recognition	3.40	3.48	3.59	.021*
Power & empowerment	3.44	3.47	3.56	.199
Supervisor effectiveness	3.48	3.45	3.65	.019*
Work cooperation	3.52	3.49	3.62	.125
Training & development	3.36	3.55	3.56	.006**
Employee Participation	3.29	3.38	3.61	.000**

Table 3: (Continued)

Variables	Type I	Type II	Type III	P-Value
Job satisfaction	3.32	3.39	3.39	.447
Work-related Values				
Performance oriented	3.04	3.13	3.31	.001**
People oriented	3.29	3.27	3.37	.200
Organization oriented	3.52	3.55	3.65	.054
External oriented	3.22	3.27	3.91	.000**

* Statically significant at the $p < .05$ level (2-tailed)

** Statically significant at the $p < .01$ level (2-tailed)

The results of the analysis of variance in Table 3 indicate the following:

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

(2) The five dimensions of human resource management practices including payment system, reward and recognition, supervisor effectiveness, training and development, and employee participation – are different in the public energy enterprises. The levels of these dimensions in organization type I are lower than those of organization type II and type III; however, their levels are not different between

organization type II and type III. The levels of the other three dimensions – power and empowerment, work cooperation, and job satisfaction – are not different in any of the types of the public energy enterprises. That is, *Hypothesis 5* is partially accepted.

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

In order to explore a causal relationship between organization antecedents and organizational commitment in the public energy enterprises in Thailand, a structural equation model (SEM) was built as a measurement model of the study. The measurement model was tested to ensure and improve the validation of the measures. The likelihood-ratio χ^2 value of 0.764 was statistically significant at $p > .05$, the goodness-of-fit index (GFI) had a value of 0.957, the incremental fit measures (AGFI) value was 0.932, indicating an acceptable fit for the model. Moreover, the NFI, IFI, and CFI values were all greater than the recommended level of 0.90, which also indicating that the model achieved a close fit for the present data.

With regard to the SEM analysis (at a statistical significant level of p -value $< .05$), the study found that the change-related behaviors (CRB) had a negative direct effect on organizational commitment with a total effect of $-.49$. Human resource management practice (HRM) had a positive direct effect on organizational commitment exhibited a total effect of $.46$. Moreover, work-related values (WRV) had a positive effect on organizational commitment, with a total effect of $.63$. These results suggest that change-

related behavior negatively influences organizational commitment, that human resource management practice positively influences organizational commitment, and that work-related value positively influences organizational commitment. As a consequence, *Hypotheses 7, 8, and 9* are accepted.

As demonstrated in Table 4, the square multiple correlation coefficient (R^2) value showed that 44% of the organizational commitment model is accounted for by three commitment antecedents – change-related behaviors, human resource management practice, and work-related values – at a statistically significant p-value of .05 level.

Table 4: Total, Direct, Indirect Effects – Estimation of the Model of Organizational Commitment

Dependent Variable	Effects	Independent Variables		
		CRB	HRM	WRV
OC	DE	-.49	.46	.63
	IE	.00	.00	.00
	TE	-.49	.46	.63
$R^2 = .44$				

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

In conclusion, the results of structural equation model (SEM) analysis showed that organizational commitment of public energy enterprises was directly affected by their commitment antecedents. That is the path model testing has a pattern of relationships with organizational commitment as the theoretical and conceptual framework proposed in this research study.

Discussion

The present findings indicate that the public enterprise reform has affected on some types of organizational commitment. It is evidenced that, from the results of hypothesis 1 to 3, the levels of some types of organizational commitment of employees in public energy enterprises are different to a certain extent. The level of employees' affective commitment and normative commitment in the totally transformed public enterprise is higher than that of partially transformed and non-transformed public enterprises. Nevertheless, the differences of the level of employees' continuance commitment in all public organizations were not significantly significant. In addition, the analysis of variance results suggested that when demographic variables accounted for the covariates, organization type effects for affective and normative commitments remain strong.

Since implementing a public reform policy can result in several forms of partial- or full-privatized organization, it leads to the question of whether organization structure matters to performance and commitment. In the literature review, employees in the private organizations show higher organizational commitment than that in the public organizations. Hence, the research findings have partly confirmed the evidence since only affective and normative commitments in the totally transformed organizations are higher than those of partially and non-transformed organizations.

With respect to the question of whether the levels and types of organizational change factors differ among Thai public energy enterprises when implementing the public reform policy, the findings for the hypothesis

4 to 6 showed that employees' perceived some organizational change-related behaviors, most of human resource management practices, and specific work-related values at different levels in these public energy enterprises.

The public reform policy has been viewed as a major administrative reform for the improvement of the public enterprise's performance as well as for reducing the financial burden of the government. With the public reform policy as the core issue, the employees of some public enterprises took a unified stance toward publicly expressed opposition to this decision. The mere motion of 'the reform' translates to an employees' apprehensiveness, fear and the reality of imminent job loss. As an alternative solution to bureaucratic control, however, the respondents of totally transformed public enterprises held favorable attitudes toward implementing the reform policy for their respective enterprises. Moreover, the totally transformed public enterprise has better communications when changes occur. Coulson-Thomas (1997) (cited by Kalya, 2007) reported that ineffective internal communication is a major contributor to the failure of change initiatives. In the mean time, communications can be used to reduce resistance, minimize uncertainty and gain involvement and commitment as the change progresses. This turns to improve morale and retention rates (Klein, 1996). In contrast to policy perception and change-related communication, role conflict in totally transformed organization is lower than that in the partially transformed and non-transformed organizations. According to Rizzo et.al., 1970 (cited by Kalya, 2007), role conflict is an incompatibility in communicated expectations that interferes with perceived role performance. Hence, effective communication in totally transformed organization could

reduce the level of role conflicts in their organization. The results in this study hence supported the evidence that suggests that positive attitudes or perceptions regard the reform policy, effective communications in the organization, and a low level of role conflicts in the totally transformed organization encourage a level of success in public reform policy implementation.

According to the HRM philosophy, organizational commitment is the joint responsibility of line managers and the human resources department. The way organizations behave as they practice the organization's human resources policies can influence employees' behaviors (Shepperd and Matthews, 2000). The study found that some human resource management practices in both partially and totally transformed organizations were more than those in totally state-owned enterprises. Those practices included the payment system, reward and recognition, supervisor effectiveness, training and development, and employee participation.

According to the findings for the sixth hypothesis, the state enterprise reform could induce a change in work-related values due to the new objectives and management practices and the need to increase efficiency and effectiveness. In deed, from the four work-related value dimensions that are measured in this research, two of them are strengthened (performance oriented and external oriented). The transformed organization seem to develop 'stronger' values and focus on creating not only better individual accountability and inter-organizational communication and coordination, but also an increased concern for team spirit and for human resources and their development. These findings similar to a report by the United Research (1990) study (cited by Cunha and Cooper, 2002). The

analysis over time, within the organization that was partially transformed reinforces this conclusion. In deed, the unit that would be privatized later on had initially significantly lower scores in organizational orientation, performance orientation, and people orientation. Nonetheless, after being partially privatized, these scores significantly increased, while organizational orientation and people orientation decreased for the units that were not privatized. These changes are reasonable because they reflect the belief that when knowledge, innovation and information are critical for the companies' survival and success, human resources can be a source of competitive advantage, as long as the companies provide them with the conditions to use and develop their talents, exchange information in a coordinated but extensive way, as well as motivate them by truly acknowledging individual efforts and contributing to achieving organizational objectives and goals.

The results for the seventh hypothesis indicated a moderate negative coefficient of $-.49$, estimation of the structural equation model at a statistically significant level greater than $.10$. These findings suggest that when change-related behaviors are present in the workplace, employees' organizational commitment decreases. These change-related behaviors were predicted to have a negative impact on organizational commitment, as hypothesized. This negative relationship between organizational commitment and change-related factors is consistent with the findings of Lopopolo (2002), Bersamin (2005), Kalyal (2007).

In the estimation of the structural equation model at a statistically significant level greater than $.10$, the finding for the eighth hypothesis revealed a moderate positive coefficient of $.46$. The results suggest that

when human resource management practices are present in the workplace, employees' organizational commitment increases. Hence, the HRM practices were predicted to have a positive impact on organizational commitment. As hypothesized, human resources management practices have a positive effect on organizational commitment. As a consequence, the results of this study support the previous empirical evidence (Laka-Mathebula, 2004; Fiorito *et. al.*, 2007).

Lastly, the results for the ninth hypothesis showed a high positive coefficient of .63, at a statistically significant level greater than .05. The findings implied that when work-related values are present in the workplace, employees' organizational commitment highly increases. The work-related values therefore were predicted to have a positive impact on organizational commitment. Hence, the results of this study support the previous research of Resanond (2002), Cunha and Cooper (2002), Kathrins (2007).

Conclusion and Recommendation

This research represents the theoretical or empirical research regarding the antecedents and consequences of organizational commitment in the energy sector. As expected, this study reveals the importance and impact of the public reform policy on some organizational change factors and has enhanced our understanding of employees' perceptions on organizational commitment outcomes in the public energy sector. Hence, this study provides a basis for energy industry researchers to further test the relationship among these constructed variables.

The study reveals that the totally state-owned public enterprise has mean scores which demonstrated less emphasis on the affective

commitment and the normative commitment compared to partially transformed and totally transformed public enterprises, whereas their mean scores on the continuance commitment were not different in these enterprises. These findings partially confirmed the hypotheses of the study, which were consistent with the literature. Furthermore, the study evidences that change-related behaviors, human resource management practices, and work-related values can influence the development of organizational commitment, especially regarding the affective and the normative commitment.

Organizations that require their employees to develop organizational commitment should provide a supportive work environment as well as implement practical implications that create specific commitment values in their organizations. As the result of this study, the commitment values that are related to the organizational commitment are performance and external orientation. Organizations could establish a receptive foundation for the commitment initiatives by creating a “commitment values.” According to this viewpoint, commitment to the mission and values of the organization is a fundamental principle. Organizations can then communicate the values of employee commitment through their company mission statement and other executive communications. In this circumstance, some significant management methods such as effective communication, training and development, payment and equitable reward, etc. can serve as additional levers for enhancing organizational commitment.

In a changing environment; for instance, when implementing the public reform policy, employees lose their motivation if they are not involved, and kept informed about what is going on around them. The less

they are informed, the more likely it will have a negative impact on their performance. Effective communication as a proactive measure can be implemented to resist such negative impacts from changes. In order to implement an effective communication during the change, the reformed organizations should communicate the reason for change, the direction and goals - be sure everyone in the organization understands the vision of where the organization is going and why. Make them a part of the plan so they assume ownership. Explain that what the organization need is necessary to remain competitive and be profitable. Moreover, the organizations should establish an atmosphere of open communication - as organization plans the changes and wishes to make, consider developing a concurrent communication strategy to remind employees what the changes are, what the expectations are, and the progress organizations are or are not making in the change efforts. As a result of this study, the transformed organization prioritizes the importance of communication as well as implements these communications effectively at all levels in their organization. Hence, effective communications on changes could improve their management and organizational practices.

Training and development are closely associated with values changes. It is one of the key policy areas necessary to achieve new core values in which organizational commitment ranks high. In order to enhance these commitment values, the training can begin with orientation for new employees. This orientation should present several important opportunities, including explaining pay linked to performance, work schedules, and corporate policies. It gives an organization a chance to encourage employee commitment by explaining how the new job contributes to the organization's

mission. Through orientation, managers can describe how their company is organized, introduce the new employees to their co-workers, and explain company regulations and other procedural matters. In short, training and development can foster a “person-organization” fit that is vital for developing productive and dedicated employees.

For current employees, training and development would help them to acquire the knowledge and skills they need to perform their jobs. Employees that enhance their skills through training are more likely to engage fully in their work because they derive satisfaction from mastering new tasks. Training and development also enhance employees’ values for organizations as well as their own employability in the job markets. Moreover, most organizations offer higher wages for skilled workers in order to compensate them for their greater values and to discourage turnover.

Managers interested in fostering commitment among their employees should select and adopt HRM practices that would contribute to the perceptions of the organizational commitment to their employees and indirectly to the development of affective commitment. Organizations should not just adopt any HRM practices, as they might not have the same impact on their kind of industry. For instance, job insecurity does not have any significant influence on the organizational commitment of employees in the energy sector, as is expected.

Based on the HRM practices, compensations and equitable rewards can powerfully influence employee commitment. Open and accurate communication creates an impression that the organization cares for and values the employee as a partner. Furthermore, by providing an explanation

of managerial decisions that affect employee welfare, the future of the organization and other labor issues would facilitate the development of organizational commitment, as it reduces speculation on the part of employees. Furthermore, managers of transforming organizations should focus on the need to implement HRM practices that lead to different corporate values and reinforce the work behaviors and attitudes that, in the new competitive environment, are being demanded from organizational employees, both at executive and non-executive levels.

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