

Path analysis of factors affecting decision making behavior and work behavior of employees in a large subdistrict administrative organization in Udon Thani Province, Thailand

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Abstract

The objectives of this research were (1) to study the level of Subdistrict Administrative Organizations (SAO)' employees opinion on work environment, emotional reaction, work attitude, work behavior, and decision making behavior and (2) to study causal effect of factors affecting on work behavior and decision making behavior of Udon Thani SAOs' employees. The samples consisted of 500 government officers, permanent workers, temporary workers, and general workers of 20 large SAOs in Udon Thani Province. The samples were selected by stratified sampling based on each SOA employee proportions. The data collection tool was questionnaires. The data analysis used were descriptive statistics and path analysis. The result of path analysis indicated that the factor with a direct impact on decision-making behavior was work environment, with total effect of 0.096. The factors that had a direct impact on work behavior were emotional reaction, work environment and work attitude, with total effect of 0.242, 0.236 and -0.167 and with direct effect of 0.236, 0.279 and -0.167, respectively. Additionally, work environment also had an indirect effect on work behavior, via emotional reaction and work attitude, with the effect of 0.006. Emotional reaction, correspondingly, had an indirect effect on work behavior, via work attitude, with the effect of -0.043.

Keywords: decision-making behavior, work behavior, Affective Event Theory, Subdistrict Administrative Organizations

1. Introduction

Subdistrict Administrative Organization (SAO) is Thai local administrative organization, in which, a key enabler who administrates between government and public sectors. SAO employees have duties in directly interacting and providing governmental services to those citizens in regions, which means the employees' attitudes toward work are important. The supportive organization environment and work processes are important in encouraging the efficiency and effectiveness of these SAO employees. In Udon Thani Province, Thailand, locates 112 SAO units, 20 of these are legitimated as large SAO units.

Affective events theory (AET) is a model proposed by Howard M. Weiss and Russell Cropanzano [1]. It suggested that emotions and moods affected on job performance and job satisfaction of employees in organization. The model introduced the linkages between internal influences and employees' reaction to work environment, which were all affecting their performance and job satisfaction.

According to AET, employees, likewise SAO employees, who are expected to provide public services at their full extent, should be concerned on their impacts from work environment and emotional reaction. Howard M. Weiss and Russell Cropanzano's AET,

therefore, is introduced in this research to define concepts and factors of the studies.

2. Objectives

The objectives of this research were (1) to study the level of Subdistrict Administrative Organizations (SAO)' employees opinion on work environment, emotional reaction, work attitude, work behavior, and decision making behavior and (2) to study causal effect of factors affecting on work behavior and decision making behavior of Udon Thani SAOs' employees. The research framework was shown below.

3. Methods

The research methodology applied in this research was quantitative research. The population included all SAO 5.126 employees in different positions, such as government officers, permanent workers, temporary workers, and general workers, from 20 large SAO units. Stratified sampling technique was used for selecting 500 samples corresponding to proportion of employees in each SAO. The questionnaire was personally distributed to each respondent and collected, therefore the response rate was 100%.

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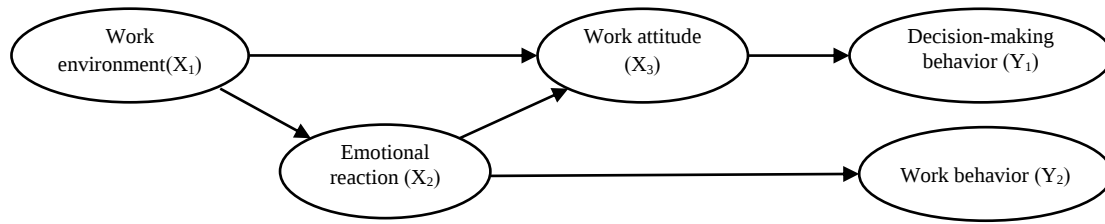


Figure 1 Research Framework

Data were collected using 5-Likert's scale questionnaires. The questionnaire was divided into 6 parts, including respondent profiles, work environment, emotional reaction, work attitude, work behaviour and decision-making behaviour. Cronbach's Alpha was used for testing questionnaire's reliability. Overall reliability was 0.939, which indicated the acceptable level of reliability.

Data analysis techniques were descriptive statistics, including frequencies, percentages, means and standard deviation. The model was analyzed by path analysis with multiple linear regression at the unstandardized coefficient at 0.05 level of significance.

4. Results and discussion

The findings of this research were divided into four parts, including respondent profiles, AET factors findings, level of work behavior and decision-making findings and path analysis findings

4.1 Respondent profiles findings

The analysis of 500 respondent profiles showed that 50.60% were male and 49.40% were female. Majority of respondents' ages were range between 31-40 years old, following by 41-50 years old group, under 30 years old group, and 51-60 years old group, with 40.20%, 31.20%, 18.20%, and 10.40% respectively. For marital status, 71.60% of respondents were married while 28.40% were single. 57.60% of respondents hold Bachelor degree, following by Master degree, high vocational certificate, and vocational certificate, with 29.80%, 12.00%, and 0.60% respectively. Majority of respondents' salary were higher than 20,000 Baht, following by 15,001-20,000 Baht group, 10,001-15,000 Baht group, and 5,000-10,000 Baht group, with 57.80%, 25.20%, 15.40%, and 1.60% respectively. For employment duration, 59.00% of respondents have been working more than 10 years, following by 6-10 years group, 2-5 years group, and less than 2 years group, with 29.80%, 9.60%, and 1.60% respectively. Lastly, 54.20% of respondents worked as government officers, following by temporary workers, general workers, and permanent workers, with 33.40%, 7.20%, and 5.20% respectively.

4.2 AET factors findings

Work environment was overall in most agreeable level ($\bar{x} = 4.51$). When considering separate item, the item with highest average was commanding ($\bar{x} = 4.92$), following by benefits and compensation management ($\bar{x} = 4.69$). The item with the lowest average was administrative policies ($\bar{x} = 4.18$). Emotional reaction was overall in agreeable level ($\bar{x} = 3.73$). When considering separate item, the item with highest average was positive emotion ($\bar{x} = 4.15$), following by negative emotion ($\bar{x} = 3.30$). Work attitude was overall in most agreeable level ($\bar{x} = 4.41$). When considering separate item, the item with highest average was attitude towards work environment ($\bar{x} = 4.82$), following by attitude towards work ($\bar{x} = 4.60$). The item with the lowest average was attitude towards supervisor ($\bar{x} = 3.94$). The full details of descriptive statistics are shown in Table 1.

4.3 Level of work behavior and decision-making findings

Table 2 demonstrates the descriptive statistics of the two dependent variables, work behavior and decision-making behavior. The average of Work behavior was 4.27. When considering separate item, the item with highest average was honesty ($\bar{x} = 4.57$), following by disciplinary ($\bar{x} = 4.49$). The item with the lowest average was cooperativeness ($\bar{x} = 4.00$). Decision-making behavior had an overall average of 3.93. When considering separate item, the item with highest average was predetermined decision making ($\bar{x} = 4.00$), following by non-predetermined decision making ($\bar{x} = 3.85$).

4.4 Path analysis findings

Table 3 shows the correlation coefficient of all variables. The three independent variables, including work environment (X_1), emotional reaction (X_2) and work attitude (X_3), were statistically relating to, dependent variable, work behavior (Y_2) at the significant level of 0.01. While only work environment (X_1) was statistically relating to decision-making behavior (Y_1), emotional reaction (X_2) and work attitude (X_3) has no relationship with decision-making behavior (Y_1).

Table 1 Descriptive statistics of AET factors

Work Environment	$\bar{x}$	S.D
Administrative and policies	4.18	0.43
Benefits and compensation	4.69	0.44
Commanding	4.92	0.70
Work atmosphere	4.41	0.47
Overall work environment	4.51	
Emotional reaction	$\bar{x}$	S.D
Positive emotion	4.15	0.36
Negative emotion	3.30	0.65
Overall emotion reaction	3.73	
Work attitude	$\bar{x}$	S.D
Attitude towards organization	4.39	0.49
Attitude towards work operation	4.47	0.56
Attitude towards supervisors	3.94	0.45
Attitude towards work environment	4.82	0.38
Attitude towards coworkers	4.60	0.48
Overall work attitude	4.41	

Table 2 Descriptive statistics of work behavior and decision-making behavior

Work behaviour	$\bar{x}$	S.D
Cooperativeness	4.00	0.22
Public dedication	4.02	0.32
Honesty	4.57	0.49
Disciplinary	4.49	0.51
Overall work behavior	4.27	
Decision-making behavior	$\bar{x}$	S.D
Predetermined decision making	4.00	0.28
Non-predetermined decision making	3.85	0.39
Overall decision making behavior	3.93	

Table 3 Correlation coefficients of all variables

Variables	X_1	X_2	X_3	Y_1	Y_2
X_1	1.000				
X_2	.448**	1.000			
X_3	.595**	.263**	1.000		
Y_1	.096*	-.007	-.046	1.000	
Y_2	.236**	.279**	-.167**	.452**	1.000

** 0.01 significant level * 0.05 significant level

Table 4 Correlation coefficient and coefficient of determination of full model

Coefficients	Dependent Variables			
	X_2	X_3	Y_1	Y_2
X_1	.448**	.595**	.096*	.236**
X_2	-	.263**	-.007	.279**
X_3	-	-	-.046	-.167**
R	.448	.595	.172	.493
R^2	.201	.354	.030	.243
1- R^2	.799	.646	.97	.757

The causal analysis of full model found that all three independent variable could predict the variance of dependent variable, decision-making behavior (Y_1) at the percentage of 3.00 ($R^2 = .030$). Work environment (X_1) was a significant predictor of decision-making

behavior, at the .05 significant level. On the other hand, all three independent variables could collectively predict work behavior (Y_2) at the percentage of 24.30 ($R^2 = .243$). Coefficient of each three variable was statistically significant at the level .01.

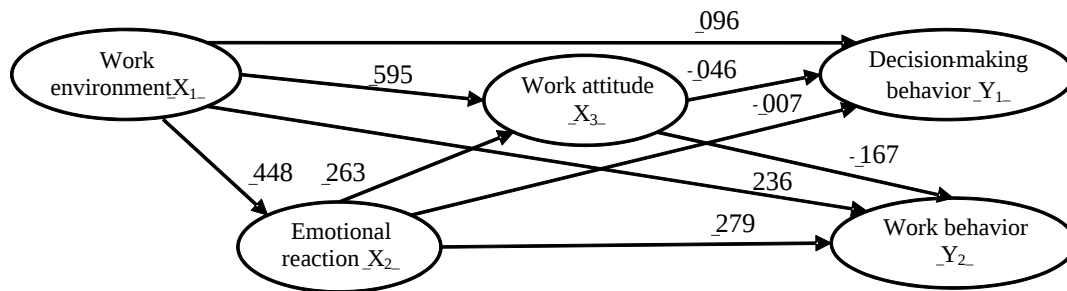


Figure 2 Full model

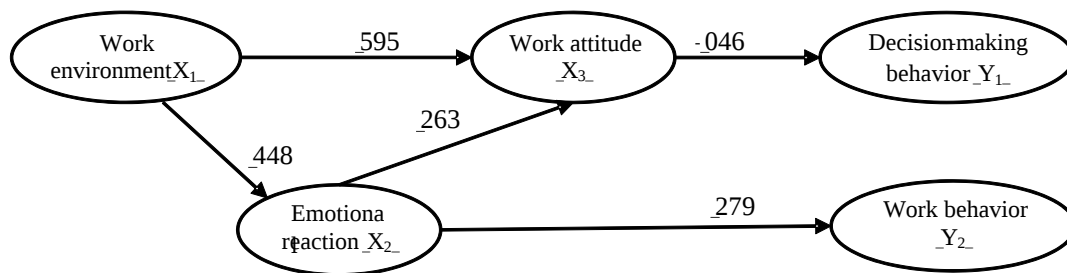


Figure 3 Theory-driven model

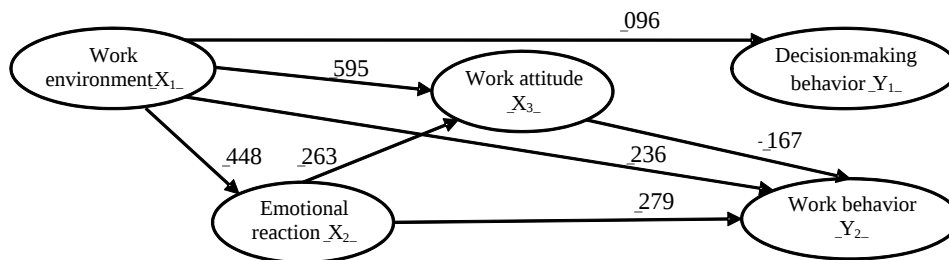


Figure 4 Adjusted model

Table 5 Correlation coefficient and coefficient of determination of theory-driven model

Coefficients	Dependent Variables			
	X_2	X_3	Y_1	Y_2
X_1	.448**	.595**	-	-
X_2	-	.263**	-	.279
X_3	-	-	-.046	-
R	.448	.595	.046	.279
R^2	.201	.354	.002	.078
1- R^2	.799	.646	.998	.922

The causal analysis of theory-driven model found that work attitude (X_3) can predict the variance of decision-making behavior (Y_1) at the percentage of 0.2 ($R^2=.002$). Both variables were not statistically related while emotional reaction (X_2) could predict the variance of work behavior (Y_2) at the percentage of 7.80 ($R^2=.078$), which coefficient of the variable was statistically significant at the level .01.

According to Table 7, Generalized Squared Multiple Correlation Coefficient (M) value was .525. The

relative fit of the theory-driven model to full model (Q) equaled to .797. The significant test to compare the fit of the two models (W) equaled to 48.87. The W was distributed as Chi-square with $df = 4$, at the significant level of .05. This could be concluded that the theory-driven model did not fit the data as well as the full model. Therefore the theory-driven model needed to be adjusted by inserting paths as shown in Figure 4.

Table 6 Correlation coefficient and coefficient of determination of adjusted model

Coefficients	Dependent Variables			
	X ₂	X ₃	Y ₁	Y ₂
X ₁	.448**	.595**	.096*	.236**
X ₂	-	.263**	-	.279**
X ₃	-	-	-	-.167*
R	.448	.595	.096	.493
R ²	.201	.354	.009	.243
1- R ²	.799	.646	.991	.757

Table 7 Comparisons of the fit of the three model

Model	R ² _m	M	Q	W	Fitness of model to
Full model	.621	.	-	-	-
Theory-driven model	-	.525	.797	48.87	Not fit
Adjusted model	-	.612	.978	4.81	Fit

Table 8 Direct effects, indirect effects and total effects

Variables	X ₂			X ₃			Y ₁			Y ₂			TE		
	DE			IE			TE			DE			IE		
X ₁	0.448	-	0.448	0.595	0.117	0.712	0.096	-	0.096	0.236	0.125	-0.099	-0.019	0.242	
X ₂	-	-	-	0.263	-	0.263	-	-	-	0.279	-	-0.043	-	0.236	
X ₃	-	-	-	-	-	-	-	-	-	-0.167	-	-	-	-0.167	

The causal analysis of adjusted model found that work environment (X₁) can predict the variance of decision-making behavior (Y₁) at the percentage of 0.90 (R² = .009) in which the correlation coefficient of such variable is statistically significant at the level of .05. On the other hand, all three independent variables could collectively predict work behavior (Y₂) at the percentage of 24.30 (R² = .243). Coefficient of each three variable was statistically significant at the level .05.

According to Table 7, Generalized Squared Multiple Correlation Coefficient (M) value was .612. The relative fit of the adjusted model to full model (Q) equaled to .978. The significant test to compare the fit of the two models (W) equaled to 4.81. The W was distributed as Chi-square with df = 2, at the significant level of .05. This could be concluded that the adjusted model fit the data as well as the full model.

Table 8 shows correlation coefficient of adjusted model. Work environment (X₁) has both total effect and positive direct effect on decision-making behavior (Y₁) with the coefficient of total effect at 0.096. Moreover, Work environment (X₁) has an effect on work behavior (Y₂) with the coefficient of total effect at 0.242 and direct effect at 0.236. The relationship between work environment (X₁) and work behavior (Y₂) is also mediated by emotional reaction (X₂) and work attitude (X₃) with the indirect effect at 0.006.

Emotional reaction (X₂) has an effect on work behavior (Y₂) with the coefficient of total effect at 0.236 and direct effect at 0.279. Their relationship is mediated by work attitude (X₃) with the negative indirect effect at -0.043. Lastly, work attitude (X₃) has

a direct effect on work behavior (Y₂) with the negative coefficient of -0.167.

5. Conclusions

The research findings can be summarized and discussed as follow:

5.1 Decision-making behavior of employees in Udon Thani SAO were directly influenced by work environment. This might be the result of employees perceived that their supervisors were friendly. They could always ask for advice from their supervisors when they were facing problems. Furthermore, the work environment generated the freedom in making decision about works, especially works related to troubles of the communities. The employees were allowed to share opinions without any restriction, in which enabled employees' abilities in making decision on responding to problems on hand immediately. Moreover, the finding also supported by the previous research that factors influence decision making behavior consisted of past experience [2], cognitive biases [3], individual differences [4], belief in personal relevance [5], and an escalation of commitment. As a result, the influence of these factors on the process may impact the outcomes.

5.2 Work behavior of employees in Udon Thani SAO were affected by work environment, emotional reaction and work attitude. Work environment was both directly and indirectly affecting work behavior, which mediated by emotional reaction and work attitude. These results were due to the friendliness of supervisors and their work behavior as a good example, the clarity in assigning works and fairness in

performance assessment. Therefore, employees were enthusiasm in working on their duties, proud, and appreciative on their works and achievement. Moreover, the work atmosphere was warmth and informal. Coworkers were cooperative and coordinative. They felt the assigned tasks were suited to their abilities and knowledge. Therefore, employees had a good attitude toward works, which would affect decision-making behavior in work collaboration. However, SAO, as a government unit, had strict rules and procedures in operation. This might cause an obstacle in working and decision making, especially works related to relieving community hardships. The employees might not be able to making decision flexibly.

Work behavior of employees in UdonThani SAO was affected directly by emotional reaction and indirectly by work attitude. This probably due to employees were proud and appreciative on their works and achievement. They were enthusiastic and had willpower in working on accomplishing their assigned duties. Therefore, employees were exerting their earnest, knowledge and skills to achieve their works. Emotions were range of events, either happiness or sadness in working, which affected emotion reaction of employees both positively and negatively.

Judge and Kammeyer-Mueller [6] mentioned that attitude affects intention, and intention then affects behavior. Attitudes consists of beliefs, assessed feelings, and behavioral intentions toward a person, an object, or an event. While attitudes are personal judgments, emotions are personal experiences. Emotions, therefore, is an important factor in establishing and shifting employee attitudes. Specially, the brain processes information along with judgement and emotion and the results of the process will be either positive or negatively affects our motives. Such process is done in an automatic and unconscious manner as an emotional reaction.

5.3 Work behavior of employees was also negatively affected by work attitude. Although organization might have modern work equipment to facilitate efficiency of working performance, ensured safety of own life and properties while working, friendly and helpful coworkers, and proud to be part of organization; governmental rules and regulations might still affect their work behavior as they had to strictly following such rules, causing them lack of flexibility in working. Rules and regulation were created to reduce variation of decision making of the same problem across the organization. Comparing to decision making process [7], the decision making process described that each person is trying to make decision with less effort, therefore, a person tends to follow the predefined rules and regulation to minimize their efforts and payouts. Eventually, factors that affecting decision makings are crucial to the critical thinking of an employees [8].

The findings of this research were consistent with Affective Events Theory (AET) of Weiss and Cropanzano [1] AET explained the relations between

employees' internal influences and their reactions to incidents that occurred in their work environment that affected their performance, organizational commitment, and job satisfaction. The theory proposes that affective work behaviors were explained by employee mood and emotions. Personal dispositions would affected emotional reaction, which affected their performance and job satisfaction.

Weiss and Cropanzano proposed that, in term of employees' behavior, emotion could either interfere job behavior, or facilitate job behavior or not relate to job behavior at all. All these depended on the resources used by emotion responses and resources required by task. They also proposed that negative emotion had greater effects on job behavior than positive emotion. The proposition was consistent with this research finding as emotional reaction of SAO employees was affecting on both decision-making behavior and work behavior, in which work attitude also facilitated the effect of emotional reaction on work behavior. AET model further suggested that employees had different emotional reaction, which affecting work behavior. There were three factors affecting emotion, including work environment, work event and personal dispositions.

Nonetheless, this research finding were not only conformed to the model, the finding also provided additional discoveries to AET model. The finding indicated that work attitude had direct effect and negatively affected on work behavior. Attitude of employees was always proposed to have an effect on the organization, even though attitude was difficult to objectively measure. Therefore, the finding was confirmed the effect of employees attitude on job-related factors.

Future research implications from this research are as follow:

1) Researchers can study work environment, emotional reaction and work attitude effect on decision-making behavior of SAO in other provinces or areas for comparison and applying to organization performance improvement.

2) Researchers can study other factors affecting on decision-making behavior and work behavior such as organizational culture, organization leadership, work quality and others; to improve other aspects of organization.

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