Antecedents of Organizational Health in Southern Thailand

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The purpose of this study was to develop a structural equation model of the causal relationships between organizational commitment, organizational justice and transformational leadership and organizational health among the local administrative organizations. The study found that the model was well-fitted to the empirical data. The results of the study indicated that organizational commitment had direct effects on organizational health; organizational justice had direct effects on organizational health and indirect effects on organizational health through organizational commitment. Transformational leadership had direct effects on organizational health and indirect influence on organizational health through organizational justice. Therefore, for local administrative organizations to have good organizational health, administrators must build justice perception among personnel in the organizations concerning decision-making, relationship, communication, and transformational leadership in terms of ideological influence, inspiration, intellectual stimulation, and individuality. All of these factors can affect organizational health of local administrative organizations.

Keywords: organizational health, organizational commitment, organizational justice, transformational leadership

Moving the country forwards amidst global environmental risk factors and adaptation to enter a multi-centered world of economy including the Asian region has been increasingly important, especially for the ASEAN group. The situation of Thailand has changed tremendously and the government has set strategies in the direction in which all the sectors could jointly move the country according to policies. The principal targets are to increase the country's competitiveness, accelerate balance, and rearrange the internal management of the public sector to be able to synergize all sectors and ready for the ASEAN Economic Community (Office of the Public Sector Development Commission, 2013). This is a change derived from a new regionalism relationship called ASEAN Community in which member countries of the Association of Southeast Asian Nations (ASEAN) tighten their political, economic, and socio-cultural relationships through three pillars: ASEAN Political and Security Community (APSC), ASEAN Economic Community (AEC), and ASEAN Socio-cultural Community (ASCC). Thus, ASEAN has become an organization with more cooperation and collaboration towards its goals. Rules and regulations will become congruent, which will affect the economic and social development of Thailand. Therefore, it is necessary for Thailand to be prepared in many aspects, especially development of various mechanisms.

This change will alter the way of life for people, agencies, and organizations. Many changes have made new conditions for local administration at a level that has never occurred before.

Local administration of Thailand was reorganized since 1997 and reorganization again is, thus, necessary though it is challenging (Khamchu, 2012).

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An organization is a group of people who have interactions, roles, and duties that are related to achieve the objectives they have set (Robbins & Judge, 2012). Good working conditions and competence can affect organizational efficiency, and this can partially be considered from organizational health. According to Cemaloglu (2011), if all sub-systems of an organization have work efficiency, the organization has good organizational health and is able to achieve its objectives. The concept of organizational health is a positive concept emphasizing society, personnel, resources, and physical ability of the organization (Ramnik & Debasis, 2007). It is a concept developed to indicate effectiveness of an organization in changing environments, and how the organization responds to the changes (Janice, 2000). Thus, organizational health is the ability of an organization to function effectively enough to appropriately cope with changes (Stanford, 2013). Due to the fact that organizational efficiency can be considered from its ability to adapt (Hoy & Miskel, 2005), good organizational health can result in good organizational development. Good organizational health indicates that the organization has efficient and effective management. Organization health is considered an organization's ability to adapt to the environment, to build unity among its members, and to achieve in its organizational goals (Altun, 2001). This is deemed significant power in change planning (Clark & Fairman, 1983).

Recent studies related to organizational health revealed that there are factors that directly and indirectly affect organizational health (Wilson, Dejoy, Vandenberg, Richardson, & McGrath, 2004). Particularly, organizational commitment has been found as a factor that directly affects organizational health (Lemerle, 2005) and contributes to close relationships between employees and organizations that make employees dedicate themselves to organizational success. Organizational commitment is a behavior based on employees' attitude toward organizations, and it is an important variable linking factors that influence organizational health. Regarding organizational justice, it is natural for employees and organizations to want it to exist in their organization with effective work performance that directly affects employee success as one of the organizational goals. Thus, it can be said that organizational justice is a theoretical concept concerning employees' judgment whether they are treated with justice in the organization, and this can influence other work-related variables (Muchinsky, 2008) that directly and indirectly affect organizational health. Furthermore, transformational leadership plays an important role in organizational health because it expresses how leaders motivate and encourage followers to recognize their leaders and accept them as role models that can change values and increase work efficiency beyond the expected level (Brown & Duguid, 1991; Robbins & Coulter, 2005).

Organizational health can be used to examine influence of individuals and the organization on making efficient outcomes for the organization (Miller, Griffin, & Hart, 1999). The level of organizational health not only identifies its present condition but also sets its possible goals, and focuses on its effort in improvement (Hoy, Tarter, & Kottkamp, 1991). This shows that organizational health is the work status of the organization according to its duties and responses according to its important function in the social system in terms of adaptation. Achieving its goals, integrating and maintaining organizational rules and regulations make the organization ready to suitably exist amidst different environments and situations in the social system and has opportunities to improve, change, or develop continuously in the long run. Organizational health is also an indicator of success or efficacy of the organization, and therefore, good organizational health can result in its effectiveness. On the contrary, bad organizational health can result in the organization's ineffectiveness (Hoy & Forsyth, 1986). This is in agreement with Owens' concept that for any organization to

operate efficiently and effectively, that organization must achieve successfully three basic survival requirements: achieving organizational goals, being able to control its internal activities, and being able to adapt to the environment (1991). Concepts on organizational health can help the organization understand personal factors and organizational factors in interaction and influence on work among employees, especially on organizational outcomes (Judge & Bono, 2001). Therefore, organizational health is important for organizational effectiveness (Ghorbani, Afrassiabi, & Rezvan, 2012; Omogemiji, 2011). For this reason, it is necessary and significant for studies to be conducted because study results can be utilized and used as guidelines for organizational health development.

Objectives

To develop a structural equation model of causal relationships of organizational commitment, organizational justice, transformational leadership and organizational health among the Local Administration Organizations.

Literature Review

Concepts and Theories

The concepts used in this study consist of those related to organizational health and relationships among organizational commitment, organizational justice, and transformational leadership.

Organizational Health

Organizational health refers to conditions of an organization as a result of work according to its duties and responsibilities that make it ready to suitably remain its existence amidst various environments and situations and to be able to improve or change so that it develops and progresses continuously. For this study, the researchers decided to investigate the organizational health dimension according to Miles' concept because it is established under a framework of organizations where information exchange takes place all the time which results in organizational health as a product of a system that shows ability of the organization (Miles, 1973) which corresponds with a study by Damirch and Rahimi (2011). In addition, from a study on factors affecting organizational health: Literature review by Usenyang, Traichandhara, & Rinthaisong (2014), found that according to Miles (1973), organizational health can be measured in ten dimensions. They are dimensions of goal focus. communication adequacy, optimal power equalization, resource utilization, cohesiveness, morale, innovation, autonomy, adaptation, and problem solving adequacy. Thus, a study of organizational health is a study of ability of the internal systems of the organization which not only functions effectively but also improves the organization. This is in agreement with Keller and Price (2011) who regard organizational health as ability to operate and create as well as to be effective. Organizational health is the same thing as present adaptation and future success that can be accelerated with the designated direction. Mohsen, Mohammad, Naghi, & Sayed (2014) confirm that organizational health has most influence on organizational quality and products. Similarly, Mbuach and Frei (2011) state that organizational health is organizational ability in utilizing strengths of the organization as well as seizing existing opportunities at the same time as reducing important weaknesses and severe threats. Olukemi (2010) indicates that organizational health grows on actions and behaviors of the organization's personnel in positioning organizational strategies for its competitiveness, and that the foundation of an organization with good organizational health helps reinforce its work performance. A study by Freyedon and Zainab (2011) specifies that organizational health is of much importance, and thus, there have been efforts in researching to find out ways to solve problems related to organizational health for improvement of organizations.

Relationships between Organizational Commitment, Organizational Justice, and Transformational Leadership, and Organizational Health

Organizational commitment and organizational health

Organizational commitment refers to personnel's feeling that they are part of the organization and show it in their confidence, attitude, acceptance of organizational goals and values, and work for the organization to the best of their ability, and desire to maintain their membership of the organization. For this study, the researcher chose to investigate the dimension of organizational commitment according to Porter, Steers, Mowday, & Boulian (1974) concept because their concept was derived from organizational commitment in terms of freedom for decision-making concerning work, especially the concept that personnel who have more freedom in making decisions about their work commit themselves more to the organization than those who have less of the freedom. This is due to the fact that all personnel wish to have freedom in doing their work in their own way, and that close control under an extent of pressure can result in reactions such as personnel giving no cooperation or even resigning from the organization. In addition, personnel can feel that success and failure in work are caused by others or their supervisor. On the contrary, personnel who have freedom in making decisions on their work, no matter what or how the result of their work is, they feel it is their responsibility or it is their performance, and this leads to organizational commitment. Moreover, from the study on factors affecting organizational health: U-senyang, Traichandhara, & Rinthaisong (2014), it was found that according to Felstead (2003), Wilson, Dejoy, Vandenberg, Richardson, & McGrannth (2004), Lemerle (2005) and Saribut (2012), organizational commitment expressed by employees indicates close relationships between employees and the organization, and such relationships can result in employees dedicating themselves for achievement of the organizational goals. This consists of three dimensions: 1) confidence in the organizational goals, 2) willingness to be dedicated to the organization, and 3) maintaining membership of the organization. It is agreed by many academics that organizational commitment is a factor that directly affects organizational health (Yuceler, Doganalp, & Kaya, 2013; U-senyang, Traichandhara, & Rinthaisong (2014). Thus, it can be concluded as Hypothesis 1.

Hypothesis 1: Organizational commitment has a direct effect on organizational health.

Organizational justice and organizational health

Organizational justice refers to a method or way that personnel decide whether they are treated with justice in matters related to work, and this can influence other variables of other aspect of work (Muchinsky, 2008). For this study, the researchers chose to explore the dimension of organizational justice according to the concepts of Folger and Cropanzano (1988), and Muchinsky (2008) because their concepts are on organizational justice related to rules, regulations, and social norms that are used in allocating returns in terms of rewards and

punishments, and a process of decision-making in other aspects including how personnel treat each other, justice in presenting information or knowledge on processes of the organization that employees are interested in or want to know. Such information must be presented with clear intention without hindrances, correct and based on reasons. Furthermore, from the study on factors affecting organizational health, literature reviews by U-senyang, Traichandhara, & Rinthaisong, (2014) it was found that social scientists must realize importance of awareness of organizational justice which is a factor that can affect job satisfaction. This consists of three dimensions: 1) procedural justice in decision-making, 2) interpersonal justice, and 3) informational justice in communication. From related literature reviews and research reports, it can be concluded that organizational justice directly affects organizational health (Freyedon & Zainab, 2011). In addition, results of many studies support that organizational justice is important to organizational effectiveness, and organizational effectiveness also refers to organizational health (Yudi, 2000; Tantinakhom, 2007). Thus, it can be concluded as Hypothesis 2.

Hypothesis 2: Organizational justice has a direct effect on organizational health.

Organizational justice not only directly affects organizational health but also indirectly through organizational commitment (Moorman, 1991; Itthiphong, 2009; Nianhom, 2008; Khlaiphet, 2005; Ghafourian, 2014; Malik & Naeem, 2011; U-senyang, Traichandhara, & Rinthaisong (2014). Therefore, it can be concluded as Hypothesis 3.

Hypothesis 3: Organizational justice has an indirect effect on organizational health through organizational commitment

Transformational leadership and organizational health

Transformational leadership refers to behaviors expressed by supervisors to motivate subordinates to accept, to be a role model that causes changes in values, and to increase work efficiency more than expected (Burns, 1978; Brown & Duguid, 1991; Robbins & Coulter, 2005). In this study the researchers chose to investigate the dimension of transformational leadership according to Bass (1985) because Bass is an academic among theorists in transformational leadership, and is most recognized for his continuous development of the transformational leadership theory, and he also developed a measurement tool called Multifactor Leadership Questionnaire which has resulted in popularity of the use of transformational leadership theories in many countries, in many units and at many levels of organizations. Units receiving knowledge about these theories are mostly public organizations, particularly lower-level leaders (Hughes, Ginnett, & Curphy, 1999). Transformational leadership consists of four dimensions: 1) ideological influence, 2) motivational inspiration, 3) intellectual motivation, and 4) individualized consideration. This also in accordance with a study by U-senyang, Traichandhara, & Rinthaisong (2014) on theoretical concepts, relationships between transformational leadership and organizational health of local administration organizations which found that these four dimensions of transformational leadership factors should be studied.

From related literature review, it can be concluded that transformational leadership directly affects organizational health (Bush, 1987; Pinsuk, 2007; Saribut, 2012; Edwards, 2008). Therefore, it can be concluded as Hypothesis 4.

Hypothesis 4: Transformational leadership has a direct effect on organizational health

Transformational leadership not only directly affects organizational health but also indirectly through organizational justice (Cogultay, Karadag, & Bektas, 2014). Additionally, transformational leadership is used to describe organizational justice perceptions (Bhal, 2006). Thus, it can be concluded as Hypothesis 5.

Hypothesis 5: Transformational leadership has an indirect effect on organizational health through organizational justice

Method

The population of this study consisted of 615 Local Administrative Organizations in the lower South of Thailand (Department of Local Administration, 2015). The sample size was determined based on Ding, Velicer, and Harlow (1995) who suggested that the appropriate sample size for studies using structural equation modelling should be 100-150. Thus, the researchers collected data from 150 organizations because most studies on organizational health use organizations as their analytical unit (Rotniruttikun, 2012; Sornprasit, 2010; Susawet, 2012; Tuan, 2013). The organizations were selected using proportional stratified random sampling, and 150 participants, one representative for each organization, were recruited using purposive sampling, in which permanent secretaries or those acting for these officers were assigned as representatives of the respective organizations; however, they had to have a minimum of three-year experience in the position. The reason for this is that the position of permanent secretary is considered an administrative position of the organization as the position requires knowledge and ability in administration and management. In addition to this, ability in coordinating is required, especially in the people sector where people are the target of services, in the public sector where administrators are in highest positions and adhere to rules and laws, and in the administrative sector where administrators are to put policy into practice (Municipality Act, 2009). Therefore, permanent secretaries can see the entire organization well.

Questionnaires were mailed to all the samples and sufficient number of copies that were valid for data analysis were returned to the researchers.

The research instrument was a questionnaire developed through back translations from a questionnaire used by other international researchers whose research reports have been published. The questionnaire was with a rating scale consisting of.

- 1) Twenty-four question items on Organizational Health Inventory were developed based on the scale by on Miles's (1973) concept, with the Cronbach's alpha coefficient of .96,
- 2) Twelve question items on organizational commitment were developed based on the scale by on Mowday, Steers, & Porter (1979) Organizational Commitment Questionnaire, with the Cronbach's alpha coefficient of .86,
- 3) Fifteen question items on organizational justice were developed based on the scale by on Colquitt's (2001), with the Cronbach's alpha coefficient of .94, and
- 4) Sixteen question items on transformational leadership were developed based on the scale by on Bass (1985), Avolio & Jung (1999), Tejed, Scandura, & Pillai (2001), Hinkin & Schriesheim (2008), and Schriesheim, Wu, & Scandura (2009), with the Cronbach's alpha coefficient of .98.

Results

The results of preliminary data analysis of variables revealed that each indicator had a normal distribution, that is, the skewness was between -.037 and .107, and the kurtosis was between -.059 to 1.457 while each indicator was between .078 and .902. Thus, that was a normal distribution with skewness under 3.00 and kurtosis under 7.00 (Curran, West, & Finch, 1996).

The results of the confirmatory factor analysis, when considering the indicators of all the variables, revealed good model fit to the empirical data $\chi^2 = 301.357$, p = .00, df = 162, RMSEA (90% CI) = 0.076 (0.062-0.089), CFI = .942 and SRMR = .051, and most of the factor loadings were over .5 except two indicators: the confidence in organizational goals in the organizational commitment which was .38, and that of the freedom indicator in the organizational health which was .45, respectively. However, they did not have statistical significance which showed that they could be good indicators of the latent variables because most of the variables had composite reliability (CR) > .70 except organizational commitment that had CR = .65 but was still higher than the criterion .60. When the average variance extracted (AVE) was considered, it was found that most of the variables had AVE > .50 except one variable of organizational commitment that had AVE = .40. If AVE < .50, then CR values were to be considered (Bettencourt, 2004). When R^2 was considered to see whether the indicators of the latent variables had sufficient reliability, it was found that all of them except that of the confidence in organizational goals in the organizational commitment and that of the freedom indicator were found to be in the range .42 - .88 which indicated that every latent variable had sufficient reliability for structural equation analysis (Hair, Black, Babin, & Anderson, 2010; Schumacker & Lomax, 2010) as shown in Table 1.

Table 1

CR and AVE of Latent Variables: Organizational Commitment, Organizational Justice, Transformational Leadership, and Organizational Health

Latent variable	Indicator	R^2	P-Value	CR	AVE
Organizational Commitment	Confidence	.14	.00	.65	.40
-	Willingness	.42	.00		
	Maintenance	.62	.00		
Organizational Justice	Procedural	.76	.00	.90	.76
	Interpersonal	.71	.00		
	Informational	.81	.00		
Transformational Leadership	Influence	.88	.00	.95	.83
	Inspiration	.88	.00		
	Intellectual	.83	.00		
	Individual	.72	.00		
Organizational Health	Goal	.44	.00	.92	.55
	Communication	.59	.00		
	Power	.69	.00		
	Resource	.64	.00		
	Cohesiveness	.49	.00		
	Morale	.66	.00		
	Innovation	.66	.00		
	Autonomy	.19	.00		
	Adaptation	.61	.00		
	Problem	.55	.00		

Convergence validity analysis by determining composite reliability (CR) and average variance extracted (AVE) which were the overall variance of the indicators of the latent variables; the AVE value was the indicator that represented the latent variables

The results of structural analysis showed that the hypothesized model was consistent with the empirical data with $\chi^2 = 303.604$; p = .00; df = 163; RMSEA = .076; confidence interval = 90% of RMSEA in the range .062–.089; CFI = .942; and SRMR = .051. The results of the analyses of direct effects, indirect effects, and total effects of the structural equation model of causal relationships between organizational commitment, organizational justice, transformational leadership and organizational health are detailed in Table 2.

Table 2

Direct Effect, Indirect Effect, and Total Effect of the Structural Equation Model of Causal Relationships between Organizational Commitment, Organizational Justice and Transformational Leadership and Organizational Health (Standardized Estimates)

	Effect	Organizational	Organizational	Organizational
Causal Variable	Coefficient	Health	Justice	Commitment
Transformational	DE	.51**	.84**	-
Leadership	IE	.29**	-	-
	TE	.80**	.84*	-
Organizational	DE	.14**	-	.69**
Justice	IE	.20*	-	-
	TE	.34*	-	.69**
Organizational	DE	.30**	-	-
Commitment	IE	-	-	-
	TE	.29**	-	-

Note. *p < .05, **p < .01.

Table 2 shows that transformational leadership had a positive direct effect on organizational health (β = .51); and organizational justice (β = .84); organizational justice had a positive direct effect on organizational health (β = .14); organizational justice had a positive direct effect on organizational commitment (β = .69); and organizational commitment had a positive direct effect on organizational health (β = .30).

When considering variables that had indirect effects on organizational health, it was found that transformational leadership has an indirect effect on organizational health through organizational justice and organizational commitment (β = .29); organizational justice had an indirect effect on organizational health through organizational commitment (β = .20). These are consistent with all the research hypotheses, and the results of the structural equation modeling analysis are illustrated in Figure 1.

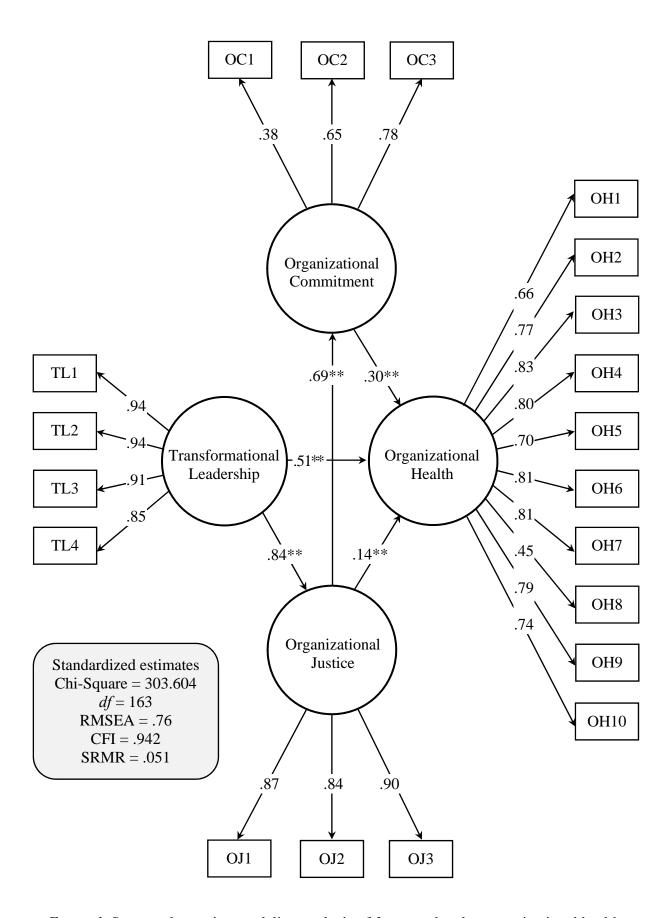


Figure 1. Structural equation modeling analysis of factors related to organizational health.

Discussion

The results of the study on the causal factors affecting organizational health modelling can be concluded and discussed as follows.

Organizational commitment has a direct effect on organizational health with the path coefficient of .29 which shows that organizational commitment is a factor affecting organizational health and this is in agreement with Brisson, Hehner, Rooney, Sanderson, & Amand (1997) from the Public Service Commission of Canada who found that personnel's commitment to the organization is necessary because feeling of ownership and pride they take in their work can result in understanding of missions and goals of the organization. Furthermore, when personnel have feeling of ownership, they will have commitment, understanding, trust and respect for each other which result in teamwork that makes the Similarly, according to Foryer and Well (1971), a healthy organization successful. organization is one where members participate in setting objectives for the work of the organization, can utilize their own potential in their work to achieve the objectives, and feel committed to the organization as part of it. As Guarnaccia (1994) said, organizational security comes from organizational long-term success which requires personnel who are determined and committed to the organization. Similarly, Lyden and Klingele (2000) specify that characteristics of organizations include loyalty and commitment, the atmosphere of sincerity and trust among personnel, and they usually tell others that they are proud of being part of the organization; and as a result, organizational commitment leads to achievement of organizational goals. Yuceler, Doganalp, & Kaya (2013) found that the present environment with fierce competition has become important for organizations to manage in such a way that enables their personnel to have good attitudes and appropriate behaviors. In addition, to have a healthy organization, management that enables personnel to feel committed to the organization and to be more efficient in their work under a desirable environment is required, and organizational health must be developed by maintaining its human resources which is of importance to the organization.

Organizational justice has a direct effect on organizational health with the path coefficient of .138, and has an indirect effect on organizational health through organization commitment with the path coefficient of .202 which shows that organizational justice is a factor that affects organizational health. According to Guarnaccia (1994), open communication that goes throughout all levels of the organization is considered justice in terms of the communication system. Muchinsky (2008) explains that information justice in an organization or justice in communication is personnel's perceptions on justice in presenting information or knowledge related to organizational processes in which personnel are interested or want to know. Information justice refers to information clarity without hidden information, correct, and based on reason. Furthermore, Freyedon and Zainab (2011) found that all organizational justice dimensions directly affect organizational health.

Organizational justice not only directly affects organizational health but also indirectly through organizational commitment. Moorman (1991) found that helping behaviors among personnel increases if they perceive the organization treats them with justice, and knowing that they are treated with justice can predict their good citizenship of the organization, and such behaviors are related to organizational commitment. Colquitt (2001) also found that the overall perception of benefit justice, procedural justice, interpersonal justice, and information justice are related to outcomes of the organization in various ways such as job satisfaction and

organizational commitment. This is in congruence with a study by Ghafourian who found that procedural justice affects personnel's commitment to the organization most (2014), and it can be concluded from Rai's study that organizational justice directly affects organizational commitment (2013) which is the same as a study by Malik and Naeem who found that perception of organizational justice has a significant positive effect on organizational commitment (2011).

Transformational leadership has a direct effect on organizational health with the path coefficient of .508, and an indirect effect on organizational health through organizational justice with the path coefficient of .116 which shows that transformational leadership is a factor affecting organizational health. Lovey and Nadkarni (2003) in the book *The Joyful Organization* say that a healthy organization requires a leader who is flexible and able to adapt quickly to the situation. Moreover, Hiranyakon (2003) found that transformational leadership and the overall organizational health, and by item have significant positive relationships at the level .05, and the predictor variable for transformational leadership can significantly predict organizational health. Similarly, Bush confirms that the leader is important in creating a good organizational health atmosphere (1987).

Besides, transformational leadership is used in explaining perception of organizational justice (Bhal, 2006) because transformation leadership is interaction between the leader and his followers who respect, trust, believe, are loyal to him, enthusiastic to work and are willing to devote to work to achieve the goals. They also work more than expected, and can change their targets and values for achievement of success that benefit the organization. Cogultay, Karadag, & Bektas (2014) found that leadership can affect organizational justice, and Edwards found that leadership styles have direct effects on organizational health according to personnel's perception (2008).

Implications

In creating a healthy organization, organizational justice in all aspects is needed. In the decision-making process, personnel need to participate in it, and in the evaluation method from knowing the method, mechanisms, and processes used for evaluation. In interpersonal aspect, administrators should build good relationships among personnel, and in the communication system, administrators should communicate with sincerity with all levels of personnel. The communication system of the organization must be effective, and it is important for everyone in the organization to be treated equally.

In addition, administrators should have transformational leadership to motivate personnel to accept change in values which can help increase work effectiveness to an extent beyond that expected by the organization. Moreover, administrators should be good role models, give encouragement and motivation to personnel to enable them to be interested and enthusiastic in doing challenging work. It is necessary for administrators to motivate personnel to develop and utilize new ideas creatively, and to pay attention to personnel's individuality and support to improve individuals' potential.

Suggestions for future research

Based on the study results, future research that would be academically beneficial and administratively benefit Local Administration Organizations (LAOs) in the lower Southern

Thailand, and that would confirm more widely and clearer should be multiple group analysis. Cross group testing should be conducted, especially cross categories between municipalities and Tambon (sub-district) Administration Organizations (TAOs) to test model variance or invariance of parameters in cross-group models where parameters or models may be different when model analyses are conducted separately according to values of variables. This may make conclusions of research results different from the overall analysis.

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References

- Altun, S. (2001). Organizational Health. Ankara: Nobel Publishing.
- Avolio, A., & Jung, D. (1999). Re-examining the components of transformational and transactional leadership using the multifactor leadership questionair. *Journal of Occupational and Organizational Psychology*, 72(4), 441-462.
- Bass, B. (1985). Leadership and Performance beyond Expectations. New York: Free press.
- Bettencourt, L. A. (2004). Chang-oriented organizational citizenship behaviors: the direct and moderating influence of goal orientation. *Journal of Retailing*, 80(3), 165-180.
- Bhal, K. (2006). LMX-Citizenship behavior relationship: justice as a mediator. *Leadership & Organization Development Journal*, 27(2), 106-117.
- Brisson, M., Hehner, P., Rooney, L., Sanderson, A., & Amand, R. (1997). *Elements of Organizational Health*. Retrieved July 10, 2015 from http://www.psc-cfp.gc.ca/audit-verif/reports/1997/orghealthe.htm
- Brown, J., & Duguid, P. (1991). Organizational learning and communities: toward a unified view of working, learning and innovation. *Organization Science*, 12(2), 40-57.
- Burns, J. (1978). Leadership. New York, NY: Harper & Row.
- Bush, T. (1987). A study of organization, managerial success and productivity in a business merchandising setting. *Dissertation Abstracts International*, 48(8), 1983-A.
- Cemaloglu, N. (2011). Primary principle' leadership styles, school organizational health and workplace bullying. *Journal of Education Administration*, 49(5), 495-512.
- Clark, E., & Fairman, M. (1983). Organizational health: A significant force in planned change. *National Association of Secondary School Principals Bulletin*, 67(464), 108-113.
- Cogultay, N., Karadag, E., & Bektas, F. (2014). School leadership and organizational justice: A meta-analysis with Turkey representative Sample. *International Journal of Education*, 6(1), 49-60.
- Colquitt, J. P. (2001). On the dimensionality of organizational justice: of a measure. *Journal of Applied Psychology*, 86(3), 386-400.
- Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychological Methods*, *I*(1), 16-29.

- Damirch, G., & Rahimi, G. (2011). Surveying ethical climate on organizational health in Iran's SMEs. *Interdisciplinary Journal of Contemporary Research in Business*, *3*(4), 888-896.
- Department of Local Administration. (2015). *Data on local administrative organizations*. Retrieved June 8, 2015 from http://www.dla.go.th/work/abt/index.jsp/
- Ding, L., Velicer, W., & Harlow, L. (1995). Effects of estimation methods, number of indicators per factor, and improper solutions on structural equation modeling fit indices. *Structural Equation Modeling*, 2(2), 119-144.
- Edwards, C. (2008). An investigation of the relationship between transformational Leadership and organizational health. (Ph.D. Dissertation). Capella University of Minnesota.
- Felstead, C. (2003). *Healthy organization-people model of iris wellness*. Retrieved March 1, 2014 from http://www.iriswellness.com/home/
- Folger, R., & Cropanzano, R. (1998). *Organizational justice and human resource management*. California: Sage.
- Foryer, J., & Well, R. (1971). *Managing with people: A manager's handbook of organization development methods*. Massachusetts: Addison-Wesley Publishing.
- Freyedon, A., & Zainab, H. (2011). Survey relationship between organizational justice and the organizational health in public organizations in Iran. *Journal of Contemporary Research in Business*, 3(2), 484-497.
- Ghafourian, J. (2014). A Study on the effect of organizational justice on organizational citizenship and organizational commitment. *Management Science Letters*, 4, 21-24.
- Ghorbani, M., Afrassiabi, R., & Rezvan, Z. (2012). A study of the relationship between organizational health and Efficacy. *World Applied Sciences Journal*, 17(6), 694-703.
- Guarnaccia, G. (1994). Healthy Companies. In G. Guarnaccia, *Training and Development* (pp. 9-11).
- Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis a global perspective*. New Jersey: Prentice Hall.
- Hinkin, T., & Schriesheim, C. (2008). A theoretical and empirical examination of the transactional and non-Leadership eimensions of the Multifactor Leadership Questionnaire (MLQ). *The Leadership Quarterly*, 19(5), 501-513.
- Hiranyakon, W. (2003). The Relationship between administrators' transformational leadership and organizational health of primary schools under the office of National Primary Educational Commission, Educational Region 12. (Master's thesis). Burapha University, the Graduate School of Educational Administration.
- Hoy, W., & Forsyth, P. (1986). *Effective supervision: Theory into practice*. New York: Random House.
- Hoy, W., & Miskel, C. (2005). *Education administration theory, research and practice*. Boston: McGraw Hill.
- Hoy, W., Tarter, C., & Kottkamp, R. (1991). Open schools health schools. London: Sage.
- Hughes, R., Ginnett, R., & Curphy, G. (1999). *Leadership: Enhancing the lessons of experience*. New York: McGraw-Hill Inc.
- Itthiphong, P. (2009). Relationship between perception of organizational justice, quality of work life and organizational commitment: A case study of one steel industrial factory. (Master's thesis). Thammasat University, Faculty of Liberal Arts of Industrial and Organizational Psychology.
- Janice, T. (2000). Managing organizational health and performance in junior colleges. *International Journal of Educational Management, 14*, 62-73.

- Judge, T., & BoNo, J. (2001). Relationship of core self-evaluations traits-self-esteem, generalized self-efficacy, locus of control, and emotional stability-with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86(1), 80-92.
- Keller, S., & Price, C. (2011). Organizational health: the ultimate competitive advantage. *Mckinsey Quarterly*, 1-13.
- Khamchu, C. (2012). ASEAN and Local Administration. Bangkok: S. Charoen Kanphim.
- Khlaiphet, P. (2005). Perceived organizational support and organizational justice affecting organizational commitment and intention to resign. (Master's thesis). Thammasat University, Faculty of Liberal Arts of Industrial and Organizational Psychology.
- Lemerle, A. (2005). Evaluating the impact of the school environment on teachers' health and job commitment: Is the health promoting school a healthier workplace? Doctoral dissertation, Queensland University, Queensland, Australia.
- Lovey, I., & Nadkarni, M. (2003). The joyful organization. India: Sage Publications.
- Lyden, J., & Klingele, W. (2000). Supervising organizational health. *Supervision Journal*, 61(2), 3-6.
- Malik, M., & Naeem, B. (2011). Impact of perceived organizational justice on organizational commitment of faculty: Empirical evidence from Pakistan. *Interdisciplinary Journal of Research in Business*, 1(9), 92-98.
- Mbachu, J., & Frei, M. (2011). Diagnosing the strategic health of an organization from SWOT analysis results: Case study of the Australasian Cost Management Profession. *Construction Management and Economics*, 29(3), 287-303.
- Miles, M. (1973). Planned change and organizational health: Figure and ground in educational administration the behavioral science: A system perspective. Boston: Allyn and Bacon.
- Miller, R., Griffin, M., & Hart, P. (1999). Personality and organizational health: The role of conscientiousness. *Work & Stress*, 13(1), 7-19.
- Mohsen, F., Mohammad, H., Naghi, R., & Sayed, M. (2014). The study of the relationship of organizational health of the schools and that of the student's academic achievement. *Journal of Social and Behavioral Sciences*, 109, 628-633.
- Moorman, R. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship. *Journal of Applied Psychology*, 76, 845-855.
- Mowday, R., Steers, R., & Porter, L. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14*(2), 224-247.
- Muchinsky, P. M. (2008). Psychology applied to work: An introduction to industrial and organizational psychology. USA: Hypergraphic Press.
- Municipality Act. (2009). Municipality Act, B.E. 2496 from the revised edition to the 13th edition. Retrieved August 8, 2015 from http://www.bangluang.go.th/New/prb.pdf
- Nianhom, A. (2008). The relationships between the perception of organizational justice, quality of work life and organizational commitment: A case study of Bank of Ayudhya Public Company Limited. (Master's thesis). Thammasat University, Faculty of Liberal Arts of Industrial and Organizational Psychology.
- Office of the Public Sector Development Commission. (2013). *Government's strategic plan for the Thai Public Sector Development (2013-2018)*. Bangkok, Thailand: Vision Print and Media.
- Olukemi, D. (2010). Creating strategic networks for enhancing small-scale business ventures: Facilitating the vision 20-20-20 agenda on entrepreneurship. *Journal of Sustainable Development*, 4(3), 59-77.

- Omogemiji, M. (2011). A study of teachers' perception of schools' organizational health in Osun State. *World Journal of Education*, *1*(1), 165-170.
- Owens, R. (1991). Organizational behavior in education. New Jersey: Prentice-Hall.
- Pinsuk, A. (2007). Roles of leadership in building the good organizational health: A case study of Thai Carbon Black, Public Co., Ltd. (Master's thesis), National Institute of Development Administration.
- Porter, L., Steers, R., Mowday, R., & Boulian, P. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603-609.
- Rai, G. (2013). Impact of organizational justice on satisfaction, commitment and turnover intention: Can fair treatment by organizations make a difference in their workers' attitudes and behaviors? *International Journal of Human Sciences*, 10(2), 260-284.
- Ramnik, A., & Debasis, B. (2007). *Healthy workplace in corporate Sector-India*. An operational research conducted by Confederation of Indian Industries (CII), Supported by WHO India Country Office.
- Robbins, S., & Coulter, M. (2005). Management. New York: Delmar Learning.
- Robbins, S., & Judge, T. (2012). *Essentials of organizational behavior*. New Jersey: Pearson Education.
- Rotniruttikun, N. (2012). Organizational health and human resource management: A Case study of government universities. (Doctoral dissertation) National Institute of Development Administration, Faculty of Public Administration.
- Saribut, B. (2012). Factors affecting being the happy workplace on employees of small and medium enterprises. (Doctoral dissertation). Ramkhamhaeng University.
- Schriesheim, C., Wu, J., & Scandura, T. (2009). A meso measure? examination of the levels of analysis of the multifactor leadership questionnaire (mlq). *The Leadership Quarterly*, 20(4), 604-616.
- Schumacker, R., & Lomax, R. (2010). *A beginner's guide to structural equation modeling*. New Jersey: Lawrence Erlbaum Associates.
- Sornprasit, K. (2010). *The development of organizational health inventory for the elementary school.* (Doctoral dissertation). Silapakorn University, Faculty of Educational Administration.
- Stanford, N. (2013). Organizational health: An integrated approach to building optimum performance. London: Kogan Page.
- Susawet, N. (2012). Development of organizational health indictors for private higher educational institutions. (Doctoral dissertation). Siam University, Graduate School of Education of Educational Administration.
- Tantinakhom, T. (2007). A comparison of perceived organizational justice and job satisfaction among private company employees with different levels of citizenship Behavior. (Master's independent Study). Chiang Mai University, Faculty of Industrial and Organizational Psychology.
- Tejeda, M., Scandura, T., & Pillai, R. (2001). The MLQ revisited: Psychometric properties and recommendations. *The Leadership Quarterly*, 12(1), 31-52.
- Tuan, T. (2013). Underneath organizational health and knowledge sharing. *Journal of Organizational Change Management*, 26(1), 139-168.
- U-senyang, S., Traichandhara, K., & Rinthaisong, I. (2014). Factors affecting organizational health: Literature Review. *The 8th National Conference Proceedings* (pp. 36-46). Ubon Rachathani: Ubon Rachathani University.

- Wilson, G., DeJoy, M., Vandenberg, J., Richardson, A., & McGrath, L. (2004). Work characteristics and employee health and well-being: Test of a model of health work organization. *Journal of Occupational and Organizational Psychology*, 77, 565-588.
- Yuceler, A., Doganalp, B., & Kaya, D. (2013). The Relation between organizational health and organizational commitment. *Mediterranean Journal of Social Sciences*, 4(10), 781-788.
- Yudi, N. (2000). Proactive characteristics and personalities, achievement motive and organizational justice perception affecting employees' work performance: A case study of a private organization. (Master's thesis). Thammasat University, Faculty of Liberal Arts of Industrial Organizational Psychology.