

THE RELATIONSHIPS BETWEEN WORK ENVIRONMENT AND ORGANIZATIONAL LEARNING: THE MODERATING ROLE OF ORGANIZATIONAL CLIMATE

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ABSTRACT

The purposes of this research are to empirically verify the relationships between work environment and organizational learning, and to examine the moderator role of organizational climate on the relationships. The samples for this research are 105 teachers and educational personnel from four secondary schools in Maharakham province, northeast Thailand. The Ordinary least square (OLS) regression analysis is proceeded to test all hypotheses of relationships among variables. The results show that all elements of the work environment such as supervisor support, co-worker relationship, social support, perceived organizational support, equality of treatment, and physical comfort, have positively influence on organizational learning. Not as expected, organizational climate negatively moderates the relationships between work environment and organizational learning. Therefore, educational organizations should consider organizing the organizational climate to enhance the organization learning. Furthermore, the results of this research will be useful for future research concerning work environment, organizational climate and organizational learning.

Keywords: 1) Work Environment 2) Organizational Climate 3) Organizational Learning

1. Introduction

In knowledge-based economy, organizations need to escalate knowledge about the environment and institute broad organizational developments in order to survive and improve (Golmoradi and Ardabili, 2016) including educational institution. Learning organizations renew themselves continually and develop new forces (Daryani et al., 2014; Adair, 2002). Organizational learning is a process by which the organization's knowledge and value base changes, leading to its improved problem-solving ability and capacity for action (Gorelick, 2005).

In the present, Thailand is more focused on education, because educational improvement is the foundation of the country's development. Furthermore, organizational learning of teachers and educational personnel is also important to improve the education system. Additionally, improving education in the country should start from developing teachers and educational personnel first. Therefore, the 20-year national strategy (2017-2036) is aimed at the development of Thai education system, and emphasized increasing teachers and educational personnel potentialities. The Office of the Basic Education Commission (OBCE) has set policies for promoting the development of teachers and educational personnel. The goal is to provide them having the capacity to meet the workforce and to have work-oriented culture of achievement. The OBCE has also formulated two key strategies as (1) development teachers and educational personnel to be able to learn quality in a variety of ways such as TEPE Online (Teachers and Educational Personnel

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Enhancement Based on Mission and Functional Areas as Majors), Professional Learning Community (PLC), learning through active learning activities, etc.; and (2) development effective human resource management system by linking with related agencies to determine capacity building, recruitment, appointment, evaluation and development, motivation for teachers and educational personnel to work in morale (The policy of OBEC, 2018). From these policies, learning the organization of teachers and educational personnel is focused intensively. This will lead to finding how to improve the working environment to be appropriate and further promote learning in the organization.

Organizational learning is affected by different outcomes like work environment: supervisor support, co-worker relationship, social support, perceived organization support, equality of treatment, and physical comfort. In addition, studying organizational climate as the moderator of the relationships between work environment and organizational learning is interesting. It is believed that the organizational climate will stimulate organizational learning.

Therefore, the purposes of this research are to empirically investigate the relationships between work environment and organizational learning, and to examine the moderator role of organizational climate on the relationships. The samples for this research are the teachers and educational personnel of the secondary schools in Mahasarakham province located in the Northeastern part of Thailand.

2. Literature Review

The relationships between work environment and organizational learning can be explained by equity and human relation theories. The equity theory was introduced by Adams in 1963. The theory represents a significant contribution to understand human motivation such as needs and expectancy. And the human relation theory emphasis employee as a human being not a machine (Chand, 2017). Thus, these two theories try to explain competitive advantage in a rapidly changing environment through the integration of the learning and modifications of the work environment model.

This research attempts to link the relationships between each dimension of work environment and its consequences. The conceptual framework of work environment and organizational learning is explicitly discussed and examined in depth. The developed research model and proposed hypotheses are shown in Figure 1.

Equity Theory

Equity theory (Adams, 1963) offers a useful insight into the importance of perceptions of fairness in the workplace and in society more broadly. The theory represents a significant contribution to understanding human motivation on part with the most influential motivation theories of the 20th century, such as needs theory, expectancy theory, dual factor theory, and path-goal theory (Ryan and Golden, 2006). Kwon and Jang (2012) specified equity as fairness, rightness, or deservingness in comparison to other entities, whether real or imaginary, individual or collective, person or non-person. Therefore, the supply of the work environment must be considered in the equality of employees in the organization.

Human Relation Theory

Rose (2005) indicated that human relation theory is normally thought of as having its roots in the Hawthorne Studies conducted in the 1920s and 1930s. Human relation theory emphasis employee as a human being and should be treated as a human being but not a machines (Chand, 2017). The features of human relation theory are the individual

employee, informal organizations, and participative management. Individual employee refers to the recognition and appreciation of individual employees within the workplace. Thus, human relation theory suggest that individual employee should be respected and treated well and that will link with the high productivity of the organization. (Tirintetaake, 2017). Because social support is one element of the work environment, human relationships are important to mention.

Work Environment (WE)

Most organizations felt that the need of establishing a motivational environment to help employees reach the their capability (Shalley, Gilson and Blum, 2000) , and the employees get benefits from work environment providing sense of belonging (Miller, Erickson and Yust, 2001) and encourage job satisfaction, organization commitment (Khuong and Le Vu, 2014; Hanaysha, 2016; Ramay, 2012; Vanaki and Vagharseyyedin, 2009) and organizational learning (Coyne, 2008). Some of the work environment variables, supervisor support, promotion, co-worker relationship (Umamheswari and Krishnan, 2016), general working conditions (Akroyd, O'Brien and Richards, 1994), Social support (Haggins, 2011), perceived organization support (Casper, et al., 2002), equality of treatment (Kalaiselvi, Kumar and Chandrasekar 2010), and physical comfort (Moos, 1994) are predictors of the organizational learning. For example, a good work environment is one that consists entirely of job factors such as: the facilities to do the work tasks, comfortable workplace, safety, and absence of noise (Hanaysha, 2016). Khuong and Le Vu (2014) stated that employees who feel comfortable in their work environment tend to work more effectively and enjoy the working process. Fang (2016) indicated that the success of organizational learning is contingent upon managerial strategic intent and the organizational environment in which the organization operates. Therefore, managers should provide the aspects of work environment to ensure the welfare of their employees (Hanaysha, 2016), and lead to organizational learning.

Organizational Climate (OC)

Singh (2018) indicated that organizational climate (OC) began to study since 1973 by Kurt Lewin, and there is a constant focus on empirical research in the recent. Organizational climate is often defined as the recurring patterns of behavior, attitudes and feelings that characterize life in the organization (Isaksen and Ekvall, 2007). Khasawneh (2018) assigned organizational climate that can help organizations reach their goals because of its impact on many aspects of the workplace. Moreover, organizational climate affects individual and group learning behaviors (Hult and Ferrell, 1997).

Organizational Learning (OL)

The organizational learning concept was first introduced in 1970's, and defined as to catch the errors and fix them (Ozsahin et al., 2012). In the current, the organization's learning activities were recognized by employees who work for the organization (Daft and Weick, 1984). Salarian et al. (2015) described organizational learning as a set of organizational activities that include knowledge acquisition, sharing information, interpreting information, which have conscious or unconscious. Organizational learning as dynamic process not only does learning occur over time and across levels, but it also creates a tension between assimilating new learning (feed forward) and exploiting or using what has already been learned (feedback) (Crossan, et al. , 1999) . Overall, organizational learning is referred in terms of process and behavior, and so, it is perceived as a supportive entity.

In the previous surveys and literature, work environment affects organizational learning, and organizational climate moderates the relationship between work environment and organizational learning the hypotheses following:

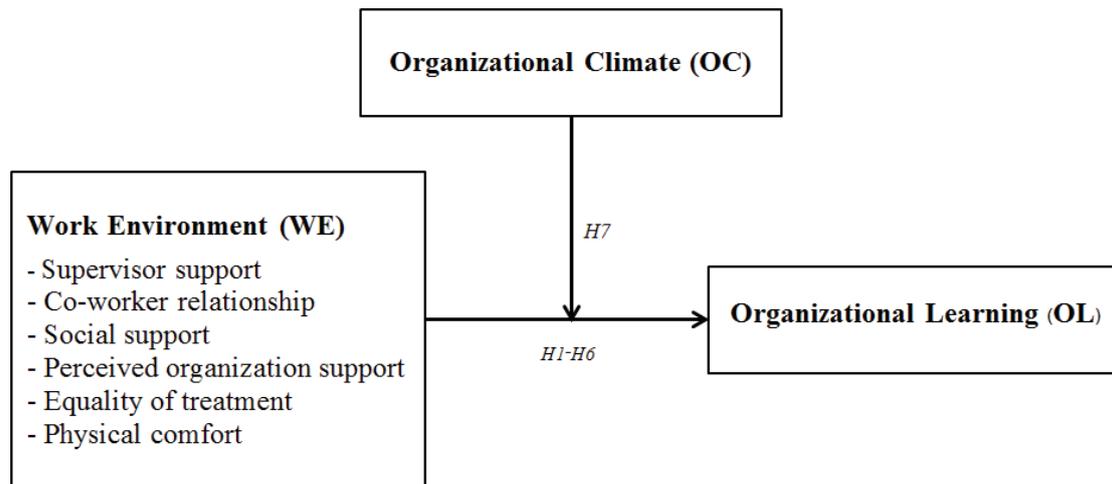


Figure 1: Conceptual Framework

- H₁: Supervisor support has positive influence on organizational learning.
- H₂: Co-worker relationship has positive influence on organizational learning.
- H₃: Social support has positive influence on organizational learning.
- H₄: Perceived organizational support has positive influence on organizational learning.
- H₅: Equality of treatment has positive influence on organizational learning.
- H₆: Physical comfort has positive influence on organizational learning.
- H₇: Organizational climate positively moderates the relationships between work environment and organizational learning.

3. Research Methodology

Population and Sample

The population and sample of this research are 412 teachers and educational personnel of four secondary schools which are under the Secondary Education Service Area Office 26, in Mahasarakham province, Northeast Thailand.

The sample size for this research is calculated according to the formula recommended by Yamane (1973) which is as below:

$$n = N / (1 + Ne^2)$$

where, n = size of the sample,
 N = population,
 e^2 = probability of error.

Therefore, the sample size is:

$$n = 412 / [1 + 412(0.05)^2]$$

with $N = 412$, $e = 0.05$ (at the 5% level of significance),

Thus the sample size is 203 respondents.

Data Collection

Data were collected from 203 teachers and educational personnel. Population data was obtained from the Office of the Basic Education Commission (OBEC, 2018). The sample was selected using a simple random sampling method. With regard to the 203 questionnaires were delivered, from which 107 respondents were received. Of the surveys completed and return, 105 were usable. There were 2 uncompleted. The response rate was 51.72%. Moreover, the maintaining power at 0.80 in multiple regression requires preferably observations for most research situations (Hair, et al., 2010). That means a correlation matrix is provided to test the intercorrelations among variables. If variables are highly correlated, and the correlation coefficient is significant and greater than 0.8 thus the multicollinearity may occur. Table 2 shows the results of correlation is between 0.253 - 0.633. Thus, the response rate of research is regarded as acceptable.

Questionnaire

This questionnaire consists of four parts designed to address the research objectives. The first part asks for key informants' information such as gender, age, education level, present position, and working experience. The second part is related to evaluating each of the items in the conceptual model. This part contains a question measuring the perception of the teachers and educational personnel to work environment. The third part is related to organizational learning. Finally, it is related to perceiving the organizational climate of teachers and staffs. Work environment, organizational climate, and organization learning are measured by using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Before the questionnaire was disseminated, it was piloted on 30 surveys in order to establish face validity (Cooper and Schindler, 2003).

Reliability and Validity

This research assesses the reliability of each construct to assess the degree of consistency between multiple measurements of a variable. The results for Cronbach's alpha coefficients for all variables in this research expressed between 0.968 and 0.970. Therefore, the results are greater than 0.7 as recommended by Nunnally (1978). The results from thirty samples in the pretest revealed that each item of all variables is loaded on only one factor, and the range of factor loadings is between 0.662 and 0.885. These values are greater than cut-off score of 0.40 (Hair, et al., 2010) which indicates acceptable construct validity of all variables are assumed.

Measurements

Work environment is measured by 18 item scale, three items per each element: supervisor support, co-worker relationship, social support, perceived organization support, equality of treatment, and physical comfort. The measurement of organizational climate is five items, and organizational learning is measured by 12 items.

Data Analysis

For statistical analysis, the descriptive statistics such as mean, frequency, percentage, and standard deviation (S.D.) are used. Inferential statistics such as correlation matrix and regression analysis are used to identify whether there is any significant difference between variables of interests and to test the hypotheses.

4. Results

Characteristics of the Respondents

The majority of respondents are female (65 respondents, 61.90%), aged over 40 years old (34 respondents, 32.40%), bachelors level of education (63 respondents, 60.00%), teacher position (83 respondents, 79.00%), and over 20 years of working experience (24 respondents, 22.90%)

Correlation Analysis

Table 1: Descriptive statistics and correlation matrix

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	VIF
Supervisor support	4.32	.42	1								1.714
Co-worker relationship	4.36	.48	.339**	1							1.601
Social support	4.34	.47	.505**	.347**	1						1.669
Organization support	4.30	.45	.491**	.442**	.253**	1					1.523
Equality of treatment	4.30	.51	.260**	.477**	.449**	.291**	1				1.611
Physical comfort	4.26	.46	.427**	.450**	.453**	.362**	.445**	1			1.706
Organizational climate	4.51	.42	.324**	.424**	.407**	.315**	.468**	.516**	1		1.585
Organizational learning	4.32	.35	.423**	.563**	.502**	.557**	.513**	.545**	.633**	1	-
** Correlation is significant at the 0.01 level (2-tailed)											

The results from Table 1 show variance inflation factor (VIF) is between 1.523 - 1.714. The VIF is less than 10, there is no multicollinearity problem on the relationships between independent variables (Nunnally, 1978). Moreover, the result found that co-worker relationship is related as having the most agreement factors on average with the mean score of 4.36. Following the social support, supervisor support, organization support, equality of treatment, and physical comfort have average the mean scores of the agreement level at 4.34, 4.32, 4.30, 4.30, and 4.26, respectively. The correlation matrix shows that the organizational learning (OL) has a positive correlation at the 1% level of significance with co-worker relationship (.563), organization support (.557), physical comfort (.545), equality of treatment (.513), social support (.502), and supervisor support (.423) indicating that as co-worker relationship, organization support, physical comfort, equality of treatment, social support, and supervisor support improve the better organizational learning of the secondary school's teachers and educational personnel.

The results from Table 2 indicate the relationship between supervisor support, co-worker relationship, social support, perceived organization support, equality of treatment, physical comfort, organizational climate, and organizational learning. The F-statistic is significant, suggesting that the model not only fits the data well, but also indicates the robust relationship between explanatory variables and dependent variable. The results also show that the model explains a considerable amount of the variance in organizational learning (adjusted $R^2 = 49.9\%$ which the inclusion of organizational learning improves the model's fit) (Inmyxai and Takahashi, 2009). This suggests that organizational learning of the secondary schools' teachers and personnel in Mahasarakham province is significant

and positive is influenced by supervisor support, co-worker relationship, social support, organizational support, equality of treatment, and physical comfort.

This evidence supports all hypotheses at the statistical significance of 1% and 5% levels of significance excluding hypothesis seven. There are six hypotheses supported which can conclude that work environment contributes to organizational learning in the secondary schools in Mahasarakham province, Northeast Thailand. The findings can be ranked based on the size of the standardized β -coefficients. The strongest key factor is physical comfort ($\beta = .515$, $p < 0.01$), followed by equality of treatment ($\beta = .472$, $p < 0.01$), organizational support ($\beta = .439$, $p < 0.01$), social support ($\beta = .360$, $p < 0.01$), supervisor support ($\beta = .345$, $p < 0.01$), and co-worker relationship ($\beta = .289$, $p < 0.05$), respectively. Thus, the results of regressions in work environment indicate a positive influence on the relationship with organizational learning. Hypothesis seven is not supported. The result of organizational climate on the relationship between work environment and organizational learning shows significant ($\beta = -.191$, $p < 0.01$), but it has negative influence on the relationships. Organizational climate concerning the perception and understanding of teachers and educational personnel on organizational expectations and goals increases, the relationships between work environment and organizational learning decrease. Thus, this result can be explained by the concept of Hellriegel, Slocum, and Richard (1989, p. 492) that “stress in the workplace is caused by a large amount of work in a limited time, stress on success and career advancement, relationships stress, and structural stress and organizational climate”. The workers’ concept conflicts with the organization’s concept, including policies of the organization are not clear or injustice in the organization, etc.

Table 2: Results of hypothesis testing

Variables	Coefficients
Constant	.146
Supervisor support	.345**
	(.006)
Co-worker relationship	.289*
	(.024)
Social support	.360**
	(.005)
Organization support	.439**
	(.001)
Equality of treatment	.472**
	(.000)
Physical comfort	.515**
	(.000)
Work environment \times Organizational climate	-.191**
Organizational learning	(.001)
R ²	.532
Adjusted R ²	.499
F-Statistic	15.779**
** p < 0.01, * p < 0.05, standard errors in parentheses	

5. Conclusions

Theoretical implementation

The research results manifest all significant variable relationships. Consequently, equity theory and human relation theory can be evidently explained in this research. This research is proposed to provide a clarify understanding of the relationships between work environment (supervisor support, co-worker relationship, social support, perceived organizational support, equality of treatment, and physical comfort) and organizational learning, including organizational climate as a moderator of the relationships between work environment and organizational learning. The consequences of this research, lead to answer how work environment and organizational climate influence on organizational learning. This research confirms the previous research about the link between work environment, organization climate and organizational learning.

Practical implementation

The results of this research can encourage managing to specify the work environment such as supervisor support, co-worker relationship, social support, perceived organizational support, equality of treatment, and physical comfort, have positive influence on organizational learning. Particularly, physical comfort is the most important influence on organizational learning. The leader of educational organizations should consider in providing a work environment which consists of a proper weather in the organization, functional facilities (e.g. computers, printers, desks, chairs, office supplies, etc.), and a pleasant workplace decoration for enhancing more efficiently of working. Inclusively, the educational manager should promote a good organizational climate and reduce factors of the stress on teachers and personnel to encourage learning in the organization. Ultimately, these lead to the development of teachers and educational personnel in the future.

Limitation and Future Research

This research focuses on the teacher and educational personnel, the results can be explained in the context of educational organization. The further future research should be studied the relationships between work environment and organizational learning with other organizations to investigate their work environment influence to organizational learning. In addition, the future research should be examined other variables as the moderator or mediator of the relationships. It is to verify the effect on organizational learning such as leadership, commitment, organizational culture and motivation.

6. References

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