
A Study on the Effect of the Operating Mechanism in Environmental Protection Industry

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Abstract

Environmental protection industry is the general term for the technical product development, commercial circulation, resource utilization, information service and project contracting in the economic structure for the purpose of preventing and controlling environmental pollution, improving the ecological environment and protecting natural resources. The operating mechanism in Environmental protection industry is very important. Under the rapid growth of technology, human capital and intelligence capital are the key success factors in the fierce competition. A leader should create high learning effectiveness and high-performance teams with proper leadership in the changeable environment so that the employees' personal knowledge could be constantly copied, spread, accumulated, and innovated to enhance the organizational products and service being continuously innovated, exceed the competitors, develop the competitiveness, and further be glad to devote to the organization. An organizational leader's leadership styles would deeply affect the interaction in the organization, and good organizational climate could result in employees' job satisfaction, organizational commitment, and intention to stay. Accordingly, developing the environment and corporate culture to induce learning is the primary task of a leader. Support of a leader to employees' learning development and the creation of corporate culture and organizational climate with knowledge acquisition and sharing are the keys in the smooth operation of an organization. Taking ecological environmental protection industry as the research object for the questionnaire survey, the data are analyzed with statistics, and suggestions for management practice and future research, according to the research results, are proposed for the reference of enterprises and academia.

Keywords: organizational climate, operating mechanism, intention to stay, environmental protection industry

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INTRODUCTION

The competition trend of globalization, the changes of consumption pattern, the innovation of production technology, and the rapid development of information technology have created a new arena for enterprise in the world. In face of the rapidly changing economic environment, competitive advantage on which enterprises used to rely for the development is disappearing, and lots of business models of traditional enterprises is no longer suitable for modern environment. An enterprise has to actively cope with external environmental changes and rapidly respond to customer needs. In the knowledge-based economy era, speed is the motive of competition. An enterprise should present more flexible adaptability to cope with the rapid environmental changes and continuously maintain the competitive advantage. The adaptability of an enterprise relies on the constant learning of the organization and the employees. In the knowledge-based economy era, knowledge would replace

traditional production factors of labor, land, and capital to become the most important resources. A dominant enterprise in the 21st century would be the one with knowledge as the major production factor. The employees of such enterprise would become the so-called "knowledge workers", especially in the environmental protection industry. In the rapid growth of technology and the fierce challenge of competition, human capital and intellectual capital are the key success factors.

Current social changes and huge changes in political and economic situations largely affect the existing ecology of the entire industry as well as the original management leaders. A leader, in current society, has to improve with the time, reinforce specialty and interpersonal basis, stress on the communication and coordination with employees, and win people by virtue, rather than relying on authority. Moreover, the attainment of organizational objectives and employee satisfaction should be taken into account. A leader's

leadership styles would deeply influence internal interaction relationship of an organization, and good organizational climate would result in the employees' job satisfaction, job involvement, organizational commitment, and work performance. It therefore is the primary task of a leader to develop an environment, which could motivate learning, and corporate culture. The support of a leader to the employees' learning development and the creation of corporate culture and organizational climate with knowledge acquisition and share are the key factors in the smooth operation of an organization. The effect of organizational climate on job satisfaction and retention intention is proceeded the empirical research in this study.

LITERATURE REVIEW

Organizational Climate

Chen (2015) defined organizational climate as "being able to measure the attribute of working environment, being indirectly or directly perceived by members, and further influencing members' motivation and behaviors". Bergheim et al. (2015) indicated that "climate" was not simply individual subjective perceived ideas, but contained the sum of individual perception. The definition of "climate" therefore should be formed from micro specific events, conditions, and experiences to a macro and abstract psychological process. Regardless the formation of ideas being clear or unclear or the method, perceived climate presented the meanings of (1) overall perception or cognition structure and (2) being influential on personal behaviors. Hur et al. (2016) considered that organizational climate was individual cognitive interpretation of the organizational environment, which could be called psychological climate. Psychological climate referred to an individual response to the cognitive environment. El-Majali (2016) therefore revealed "climate" as an individual accepting the expected behavior of the related organization and response behavior; an individual would respond to the expected result with such subjective perceived information (Reed et al. 2016).

Referring to Liao and Liu (2016), the following five dimensions are applied to measure organizational climate.

- (1) **Supervised pattern:** The degree of a supervisor concerning about the completion of work, and the openness, concerns, and support.
- (2) **Job characteristics:** The degree of a job presenting diversity, challenge, and achievement.

- (3) **Peer relationship:** The degree of mutual trust, support, friendliness, and cooperation among peers.
- (4) **Job competence:** The degree of proper background, training, and specialty for the assigned work.
- (5) **Hardware environment:** The degree of an employee being offered proper working space.

Job Satisfaction

Chiang et al. (2016) pointed out job satisfaction as employees' psychological and physiological satisfaction with working environment and the work. Jiang and Probst (2015) regarded job satisfaction as employees' responses to the perception or emotion of the work and the work-related factors. Boamah and Laschinger (2015) considered job satisfaction as a worker's psychological and physiological satisfaction with the environment, i.e. a worker's subjective response to the working situation. Ross and Cozzens (2016) pointed out job satisfaction as the pleasant or positive emotion of an individual evaluating the work or the work experience, i.e. individual feeling about the work or attitudes towards the dimensions of the work. In short, it referred to whether an individual liked (satisfied) or disliked (dissatisfied) the work. González et al. (2016) regarded job satisfaction as an individual or several employees satisfying with the work, which was correlated with pay, way of salary increase, working hours, working environment, promotion, interpersonal relationship, and management.

Referring to Hao et al. (2016), job satisfaction is measured with following dimensions in this study.

- (1) **Motivation factor:** also named internal factor, including achievement, approval, the work, responsibility, promotion, and growth possibility.
- (2) **Hygiene factor:** also called external factor, covering policy & management, supervisor guidance, relationship with supervisors, working conditions, pay, colleague relationship, subordinate relationship, thinking, status, and job guarantee.

Retention Intention

Ding et al. (2015) referred retention as conservation, maintaining unchanged, and avoiding separation, while intention as the direction of mind. Shanker et al. (2017) regarded retention intention as a worker's mind expecting to continuously maintain the current job.

Bouckooghe et al. (2015) pointed out retention intention as a dimension in organizational commitment, explaining an employee's loyalty to the organizational working conditions and environment and the intention to stay in the organization. Zhang and Bednall (2015) referred retention intention as the expectation to continuously be a member of the organization or retain in the organization that the members regarded retaining in the organization as an obligation and would be willing to stay in the organization for the continuous work. Law and Guo (2016) regarded retention intention as an employee's emotional attachment to the organization that the employee would be willing to retain in the organization when satisfying with the organization. Marianne Törner et al. (2017) considered retention intention as a worker, after entering the workplace, appearing commitment to the organization with subjective evaluation and being willing to continuously retain at the current job.

Referring to Law and Guo (2016), a single dimension is used for measuring retention intention in this study, and the retention intention scale aims to measure the retention intention strength of an employee in environmental protection industry.

Effect of Organizational Climate on Job Satisfaction

Hao et al. (2015) found out several characteristics of organizational climate in the research and discovered that certain organizational climate could cohere with employees and promote the work performance, work achievement, and job satisfaction. Such psychological attitudes of employees were the decisive factors in increasing yield. Chen (2015) found out significant correlations among career management, personality traits, organizational climate, job satisfaction, self-efficacy, and work performance of security personnel. Liao and Liu (2016) regarded organizational climate as organizational members' perception and cognition of the organization for describing the characteristics of internal organizational environment to influence the members' work attitudes, behaviors, and morale. Good organizational climate could assist in promoting employees' morale and attitudes to further effectively achieve the organizational objectives (Reed et al. 2016). According to above literatures, the following research hypothesis is deduced.

H1: Organizational climate presents notable correlations with job satisfaction.

Effect of Job Satisfaction on Retention Intention

Jo and Shim (2015) revealed the positive correlation between job satisfaction and retention intention. Jiang and Probst (2015) showed the remarkably positive correlations between job satisfaction and retention intention that the higher employees' job satisfaction would enhance the retention intention. Chiang et al. (2016) pointed out the obviously positive correlations between job satisfaction and retention intention that an employee perceiving more satisfaction with pay, interpersonal interaction, and responsibility presented higher possibility to retain, while unsatisfactory working environment might result in turnover. Hao et al. (2016) indicated that unfair pay systems would reduce employees' retention intention and increase the turnover rate of frontline employees. Liu (2011) proposed positive correlations between job satisfaction and retention intention that higher job satisfaction revealed higher loyalty of employees, willingness to accept larger challenges, and retention intention. Accordingly, the promotion of employees' job satisfaction would benefit both employees and the organization (Ross and Cozzens 2016). Based on above literatures, the following research hypothesis is inferred.

H2: Job satisfaction shows remarkable correlations with retention intention.

Effect of Organizational Climate on Retention Intention

Zhang and Bednall (2015) pointed out the significantly positive correlations between organizational climate and retention intention. Law and Guo (2016) revealed positive correlations between organizational climate and retention intention. Michal Itzhaki et al. (2015) considered that organizational climate conforming to personal intention would generate higher job satisfaction, loyalty, involvement, and performance. Ding et al. (2015) pointed out the effects of work tension, high spiritual pressure, low value achievement, and bad promotion on high turnover intention of employees (Johnston and Marshall 2016). Researchers proposed the factors in nursing staff's retention intention of good organizational climate, conforming pay with workload, good welfare, high professional commitment, promotion opportunity, flexible shift, team coherence, support, high autonomy, reduced workload, seniority, supervisor appreciation, and high job satisfaction (Marianne Törner et al. 2017). According to above research, the following research hypothesis is deduced in this study.

H3: Organizational climate reveals significant correlations with retention intention.

RESEARCH METHOD

Method and Model

The goodness of fit test in LISREL model could be measured with overall model fit (external quality of model) and internal quality of model. In regard to overall model fit test, the commonest fit indices contain (1) “ χ^2 ratio” (Chi-Square ratio), standing for the gap between actual theoretical model and expected value, which is better smaller than 3, (2) goodness of fit index (GFI) and adjusted goodness of fit index (AGFI), which are better close to 1, (3) root mean square residual (RMR) of the square root of “residual variance/covariance”, which is better smaller than 0.05, and (4) incremental fit index (IFI), revealing excellent model fit when higher than 0.9.

The internal quality evaluation indicators in LISREL include (1) square multiple correlation (SMC) of individual manifest variables, i.e. R2 of manifest variables and latent variables, which should be higher than 0.5, (2) component reliability (ρ) of latent variables, as the Cronbach’s α of the observation indicator of the latent variable, which should be higher than 0.6, and (3) average variance extracted of latent variables, which is calculated by the R2 sum of manifest variables of a latent variable divided by the number of manifest variable, revealing the percentage of latent variable being measured with manifest variables; which is better higher than 0.5.

Research Sample and Object

Aiming at employees of Ecological environmental protection industry businesses in Hubei Province, total 420 copies of questionnaire are distributed, and 289 valid copies are retrieved, with the retrieval rate 69%.

Reliability and Validity Test

The questionnaire contents are based on past theories and referred to the actual situation of the research object to confirm to the content validity. The final commonality estimate of factor analysis is applied to test the construct validity of dimensions. The acquired validity appears in 0.712~0.884, showing the favorable validity test of the questionnaire. In a basic research, reliability coefficient above 0.8 reveals the scale with high reliability, while 0.7 is acceptable in exploratory research. The Cronbach’s α appears in 0.83~0.92, apparently conforms to the requirement of Cronbach’s α being in 0.70~0.98 that it presents high reliability.

Table 1. SMC of variable to dimension

organizational climate				
supervised pattern	job characteristics	peer relationship	job competence	hardware environment
0.74	0.77	0.80	0.81	0.83

Table 2. SMC of variable to dimension

job satisfaction	
motivation factor	hygiene factor
0.84	0.88

Table 3. Component reliability and average variance extracted of variable

Item	organizational climate	job satisfaction	retention intention
component reliability	0.851	0.866	0.874
average variance extracted	0.82	0.84	0.86

EMPIRICAL RESULT ANALYSIS

Model Fit Test

“Maximum likelihood” (ML) is applied to the estimation, and the LISREL analysis result achieves convergence. The overall model fit indices representing external quality of model reveal (1) χ^2 ratio=1.421, smaller than 3, (2) goodness of fit index GFI=0.95, higher than 0.9, and adjusted goodness of fit index AGFI=0.87, higher than 0.8, (3) root mean square residual RMR=0.034, smaller than 0.05, and (4) incremental fit index 0.92, higher than 0.9. Overall speaking, the number of actual samples 289 is higher than the requirement of basic number of samples 135.73, and the overall model fit indices pass the test, fully reflecting the favorable external quality of LISREL model.

Regarding the test of internal model quality, the square multiple correlation SMC of manifest variables is higher than 0.5 (**Table 1 & 2**), showing good measuring indicators of latent variables. Furthermore, the component reliability of latent variables of organizational climate, job satisfaction, and retention intention is higher than 0.6, and the average variance extracted of dimensions is higher than 0.5 (**Table 3**), apparently conforming to the requirement for internal quality of model.

Path Relation Test

When latent variables of supervised pattern, acceptance, internal satisfaction, and task performance are regarded as the reference indicators with fixed 1, the relation estimate between other dimensions and variables appears significance, **Table 4**. That is, job characteristics=1.13 presents more explanatory power than supervised pattern and hygiene factor=1.08 shows more explanatory power than motivation factor. The hypothesis test is shown in **Table 4**.

Table 4. Overall linear structural model analysis

dimension/evaluation standard		estimate
organizational climate	supervised pattern	1.00
	job characteristics	1.13
	peer relationship	1.04
	job competence	1.02
job satisfaction	hardware environment	1.06
	motivation factor	1.00
	hygiene factor	1.08
retention intention	strength of retention intention	1.00
organizational climate→job satisfaction		0.833
job satisfaction→retention intention		0.874
organizational climate→retention intention		0.846

Note: * stands for p<0.05, ** for p<0.01, *** for p<0.001

Table 5. Hypothesis test

research hypothesis	correlation	empirical result	P	result
H1	+	0.833	0.00	supported
H2	+	0.874	0.00	supported
H3	+	0.846	0.00	supported

CONCLUSION

The research results prove that an employee, under better organizational climate, would be more willing to participate in the system and activity promoted by the organization so that the management system of the organization could be more effectively operated. An employee voluntarily participating in organizational activity reveals the agreement with the organization that the job satisfaction would be enhanced. Organizational climate therefore is an important part of corporate culture in environmental protection industry. Good organizational climate of an enterprise presents critical function on employees' organizational behaviors. Organizational climate in environmental protection industry could induce employees' coherence and even promote the work performance, work achievement, and job satisfaction. Such psychological attitude responses of employees are the key factors in increasing yield. It is considered in this study that paying attention to organizational climate and creating good and warm organizational climate in an environmental protection industry would have the employees show stronger sense of belongingness to the organization to further enhance the job satisfaction. An environmental protection industry should apply more rewards and listens and adopts more of employees' opinions. When an employee is satisfied with the job, the intention to retain in the business would be enhanced. For this reason, an environmental protection industry could regularly

investigate the employee satisfaction to understand the satisfaction and dissatisfaction and make improvement aiming at employee dissatisfaction to enhance employees' job satisfaction and reinforce the organizational commitment and retention intention.

SUGGESTION

From the important research results and findings, practical suggestions are proposed in this study, as followings.

1. Along with the time change, employees in an environmental protection show different ideas and cognition. New-generation employees stress more on the direct rewards from the job and real rewards as well as the ideas being adopted by the company. To retain such employees, an environmental protection industry should provide more stage for the development and definite reward systems so that the employees present better commitment and better retention intention.
2. Promoting employees' job satisfaction could enhance employees' retention intention. Employees' job satisfaction and retention are subjective measurement that an environmental protection industry should deeply understand employees' needs and personal background and satisfy the expectation as much as possible. An employee with satisfied expectation would be more satisfied with the job and better agree with the organization to be more willing to retain in the organization.
3. An environmental protection business should establish the organizational climate with commitment and provide definite objectives for the achievement of employees with immature thoughts, while development space should be offered for employee with perfect thinking. In this case, each employee in an Ecological environmental protection industry could develop the specialty under favorable and proper climate to further promote the job satisfaction.

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