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## Factors Affecting Job Characteristics on Emotional Labor toward Work Adjustment in Environmental Protection Industry: An Empirical Study

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### Abstract

The introduction, development, maintenance, or promotion of technologies in Environmental protection industry depend on “talents”, who are the asset not being copied by competitors. The importance of “talents” for Environmental protection industry is apparent. Environmental protection industry should realize that the more industries depending on professional knowledge and technologies should emphasize more on internal employees, as those with professional competence are the source of core competitiveness of an enterprise. It shows the important role of employees in Environmental protection industry. Different job characteristics would generally result in distinct emotional labor and work adjustment; meanwhile, long-term emotional labor would result in work adjustment that the relations among job characteristics, emotional labor, and work adjustment of employees in Environmental protection industry have become a primary issue in human resource management. Research subject on Environmental protection industry is rare that this study intends to research the correlation among job characteristics, emotional labor, and work adjustment in Environmental protection industry. With questionnaire survey, the retrieved copies are analyzed with statistics. According to the results, suggestions are proposed, expecting to provide reference for managers of Environmental protection industry making human resource management strategies and for researchers on the successive research.

**Keywords:** job characteristics, emotional labor, work adjustment, environmental protection industry

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### INTRODUCTION

Under the constant investment in environmental protection and the promotion of technology, enterprises have changed to technology-intensive Environmental protection industry in past years. The factors of global economy, complicated technology development, and rapid innovation development of enterprises have facilitated the changes of enterprises. The development potential and importance of Environmental protection industry enhance various countries taking the development of Environmental protection industry as the most important strategic industry in the knowledge-based economic era. Environmental protection industry is a capital, technology, and knowledge intensive industry, stressing a lot on the speed of technology innovation. An enterprise could be competitive in the industry merely by constant R&D, innovation, and enhancement of technology capability. The introduction, development, maintenance, or promotion of technology in Environmental protection industry relies on “talent”, which are the only asset which could not be replicated

by competitors. The importance of “talent” to Environmental protection industry is apparent. Consequently, an Environmental protection business being able to continuously maintain the competitive advantage depends on the capability of the entire industry and the businesses to attract, develop, and retain good technological talents.

Environmental protection industry has to realize that an industry depending more on professional knowledge and technology would stress more on internal employees, as employees with professional competence are the sources of corporate core competitiveness. An employee plays such an important role in a hit-tech business. In face of external work performance, the participation role, larger amount of work, and expectation in the high-pressure working environment could easily induce employees' negative emotion, and even affect the work adjustment. For this reason, an employee being satisfied at work would enhance the commitment to the company and further assist in reducing the burden on the emotional labor. Otherwise, an employee, due to the negative effect of

emotional labor, might reduce the work satisfaction, or reflect the negative emotion to the work. Such a vicious circle would result in serious losses of a company. Using job characteristics for understanding the requirements of work would improve the entire working environment. Different job characteristics would normally cause distinct emotional labor and work adjustment; meanwhile, long-term emotional labor would result in job burnout. The relationship between job characteristics and emotional labor, work adjustment of employees in Environmental protection industry has become a primary issue in human resource management.

## LITERATURE REVIEW

### Job Characteristics

Huang et al. (2015) referred job characteristics as work-related factors or attributes, which broadly covered work characters, working environment, pay, welfare, security, feedback of work, working skills, autonomy, challenge, opportunities to learn knowledge and develop at work, interpersonal relationship, and intrinsic reward of the work, e.g. satisfaction, achievement, pride, and self-fulfillment (Jamielniak et al. 2015). Akintola and Chikoko (2016) pointed out the coverage of "job characteristics" as all work-related factors or attributes which could encourage employees. Gabriel and Diefendorff (2015) indicated that job characteristics should contain working environment, welfare and pay, interpersonal relationship at work, work security, work autonomy, working skills, and work challenges. Such characteristics would appear distinct effects on workers' attitudes and work satisfaction (Lee and Chelladurai, 2016).

Referring to Chang et al. (2017), job characteristics include the following dimensions.

- (1) Meaning experience: An employee is able to perceive the meaningfulness and value of work to further affect the diversity of skills for work experience, task integrity, and task importance.
- (2) Responsibility experience: An employee considers that the responsibility for the working result is mainly affected by autonomy. An employee with high autonomy would more easily realize the responsibility for the work.
- (3) Result understanding: The degree of an employee understanding the work competence activity and result is related to work feedback. An employee, when acquiring information of work result, would automatically adjust the

competence activity or modify work programs, according to such information, to achieve work objectives.

### Emotional Labor

Choi and An (2016) regarded emotional labor as the behavior to express proper emotions, i.e. expressing suitable emotions according to organizational requirements. It was proposed that the idea of emotional labor was not simply used for interpreting the exchange with external customers (consumers), but could be applied to interpret the interaction with internal customers (e.g. supervisor-subordinate relationship). Bailey (2016) regarded emotional labor as an individual expressing the emotion required by the organization in the interpersonal interaction process, which required efforts, planning, and control. Kabir et al. (2016) pointed out emotional labor as an employee, when engaging in work-related interaction, being requested or reflected specific emotions and perception for acting. Grandey and Gabriel (2015) stressed on the correlations between emotional labor and the dealing with other's affection, and the core element was emotional rules. From the viewpoint of work emotion, emotional labor was a product to enhance and regulate organizational members' emotional expression in the commercial transaction or service process. Humphrey et al. (2015) regarded emotional labor as employee perception requested when engaging in work-related interaction, or the acting when reflecting specific emotions.

Referring to Zheng et al. (2017), emotional labor is divided into deep acting, surface acting, and true sentiment in this study.

- (1) Deep acting: Deep acting is regarded as consistent with an employee's real perception and could have the employee truly "perform oneself" and adjust internal emotional performance to conform to external emotional performance (Ye and Chen, 2015). When real internal negative emotion is involved, employees presenting deep acting would attempt to modify to the true affection performed (Mróz and Kaleta, 2016).
- (2) Surface acting: An employee's surface acting involves in the simulation of unreal perceived emotion, attempting to conform to the organizational regulations by adjusting the external behaviors or exhibit the negative emotion, without changing internal emotions. Careful language expression or non-verbal

information would present the fake affection through facial expression, gestures, and tones (Saks et al. 2015).

- (3) True sentiment: An employee, when the true perception is consistent to the affection rule, could naturally express emotions consciously to play the role conforming to the affection rules, without consuming too many internal resources.

### Work Adjustment

Huo and Boxall (2018) pointed out work adjustment as the interaction between an individual and the working environment, the continuous process of an individual completing various work requirements in the working environment in order to acquire physiological, psychological, and social needs. Bayl-Smith and Griffin (2015) regarded work adjustment as individual physiological and psychological adjustment, under working environment and work needs, in order to achieve the mutual balance and satisfaction and further maintain job stability. Sonnentag and Charlotte (2015) pointed out work adjustment as the fit between the dynamic development of the mutual function between an individual and the working environment and adjustment, i.e. the process to achieve and maintain the fit between an employee's needs and the employer's supply. Darthey-Baah (2015) considered that work adjustment was used for concluding the process of an individual developing all skills and capabilities to cope with the requirement in the working environment. Lee et al. (2016) regarded work adjustment as the description of the difficulty in individual adjustment to the working environment, i.e. individual perceived difficulty in the adjustment to the working environment.

Referring to Hsieh et al. (2016), the following dimensions are classified.

- (1) Task performance: referring to the quality and quantity of individual work outcome, i.e. individual work ability consistent to the skills required in the workplace.
- (2) Work role and behavior: indicating individual task performance required for the workplace, i.e. individual work personality consistent to individual behavior expected in the workplace.
- (3) Work satisfaction: referring to individual satisfaction with the work, i.e. individual work objectives consistent to the rewards and opportunities provided in the workplace.

### Research Hypothesis

Work dimensions do not directly affect an individual and the work outcome, but influence such variables through psychological state (Huang et al. 2015). Hagenauer et al. (2015) explained that a work being able to better encourage potential could enhance workers' intrinsic motivation and job satisfaction and reduce workers' pressure and emotional dissatisfaction. Chang et al. (2017) mentioned that a worker with high emotional labor bore more emotional load than those with low emotional labor, but those with low emotional labor would more easily appear negative emotional reaction due to the served objects and the working environment (Tsukamoto et al. 2015). In this case, the effect of emotional labor on a worker would be influenced by job characteristics. The following hypothesis is therefore proposed in this study.

**H1:** Job characteristics present negative and significant effects on emotional labor.

Choi and An (2016) found out the remarkably positive correlations between emotional labor and work adjustment, and the effect of variables on work adjustment up to 66%; in other words, emotional labor could effectively predict work adjustment that the lower emotional labor showed the better task performance. Nesje (2017) indicated that emotional labor could effectively predict work adjustment, and the higher emotional labor revealed the worse work adjustment. Zheng et al. (2017) revealed that care service related emotional labor would affect female caretakers' work adjustment to reduce care quality and enhance the turnover intention. Weiler and Black (2016) found out the notable differences in emotional labor, organizational commitment, and work adjustment between basic administration and professional police; emotional labor would significantly and negatively affect basic-level police's organizational commitment and work adjustment (Mróz and Kaleta, 2016). As a result, the following hypothesis is proposed in this study.

**H2:** Emotional labor shows negative and remarkable effects on work adjustment.

Ye and Chen (2015) discovered the positive effect of job characteristics on work adjustment of basic administration and professional police; accordingly, employees' job characteristics were correlated with work adjustment to further affect the performance. Pandey and Singh (2016) revealed the positive correlations between job characteristics and work adjustment of workers. A lot of research also proved the

**Table 1.** Research model fit analysis

Fit Indices	allowable range	this research model	model fit judgment
$\chi^2$ (Chi-square)	the smaller the better	16.75	
$\chi^2$ and degree of freedom ratio	<3	1.68	fit
GFI	>.9	0.94	fit
AGFI	>.8	0.87	fit
RMSEA	<.08	0.03	fit
CFI	>.9	0.92	fit
NFI	>.9	0.91	fit

effect of job characteristics on work adjustment (Lee et al. 2016). For instance, Yildirim (2015) indicated that employees with higher job characteristics would present higher work adjustment. Hsieh et al. (2016) also proposed that job characteristics would keep affecting work adjustment. Accordingly, the following hypothesis is proposed in this study.

**H3:** Job characteristics show positive effects on work adjustment.

## SAMPLE AND MEASURING INDICATOR

### Research Sample and Object

Aiming at employees of hi-tech businesses in Hsinchu Science Park, total 360 copies of questionnaire are distributed, and 238 valid copies are retrieved, with the retrieval rate 66%.

### Reliability and Validity Test

Confirmatory Factor Analysis (CFA) is regarded as an important part in SEM analysis. For this reason, when measuring the model with CFS, the measuring model should be evaluated before executing the structural model with two-phase model modification. When the measured model fit is acceptable, the second step SEM model evaluation is further preceded. The factor loadings of the dimensions in the CFA appear in .70~.85, the composition reliability shows in .70~.90, and the average variance extracted reveals in .65~.88, conforming to the standards of 1. factor loadings > .5, 2. composition reliability > .6, and 3. average variance extracted > .5. The dimensions therefore present convergent validity.

## ANALYSIS OF EMPIRICAL RESULT

### Structural Model Analysis

Structural model analysis covers the analysis of model fit and the explanatory power of the overall model. Referring to researchers, seven numerical indicators are utilized for testing the overall model fit, including chi-square ( $\chi^2$ ) test,  $\chi^2$  and degree of freedom ratio, goodness-of-fit indices, adjusted goodness-of-fit indices, average approximate error square root, comparative goodness-of-fit indices, comparative

hypothesis model, and chi-square difference of independent model. The overall results are organized in **Table 1**.

Accordingly,  $\chi^2$  and the degree of freedom ratio are used for testing the model fit, which is better smaller. The  $\chi^2$  and degree of freedom ratio in this research model appears <3 (1.68). GFI and AGFI are better close to 1, and no absolute standard is used for judging the model fit, where GFI > .9 and AGFI > .8 are acceptable. GFI and AGFI in this research model show .94 and .87, respectively. RMSEA in .05-.08 reveals the favorable model and the reasonable fit; RMSEA in this research model is .03. Allowable standard of CFI is > .9; the CFI in the research model appears .92. NFI should be higher than .9; the NFI in this research model shows .91. Overall speaking, the fit indices conform to the standards, revealing the research results being acceptable. The research samples therefore could be used for explaining the actual observation data.

From the previous overall model fit indices, the structured model and the observation data present favorable fit that the theoretical model could fully explain the observation data. After the model fit test, the correlation coefficients of job characteristics to emotional labor and work adjustment and the coefficient estimates are further understood.

### Hypothesis Test of the LISREL Model

**Fig. 1** displays the relationship path in this study, where the estimates between dimensions and variables appear significance. The hypothesis test is shown in **Table 2**.

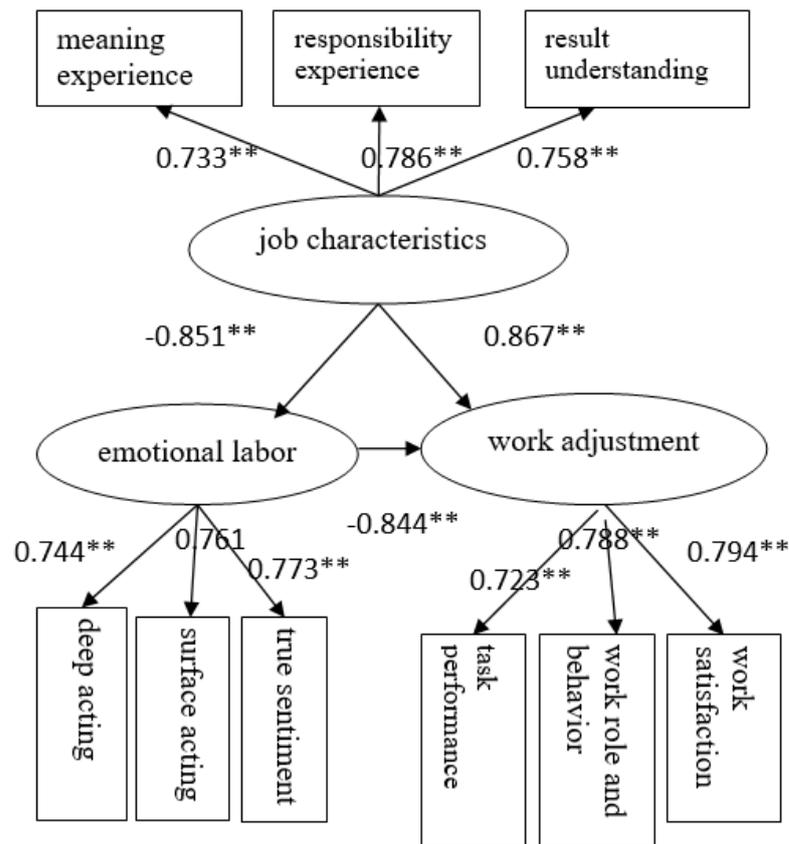


Fig. 1. Path relationship diagram

Table 2. Hypothesis test

Research hypothesis	correlation	Empirical result	P	result
H1	-	0.851	0.00	supported
H2	-	0.844	0.00	supported
H3	+	0.867	0.00	supported

**CONCLUSION**

The research results reveal that job characteristics could effectively predict emotional labor, meaning that employees with higher perceived job characteristics could apply positive emotions and reduce emotional dissatisfaction to deal with the emotional labor. It proves that job characteristics could reduce emotional labor. An employee in Environmental protection industry being able to apply working skills conforming to the work would enhance the perceived job characteristics to naturally enhance the work adjustment. The application of job characteristics to offer employees with more chances to control self-working conditions and space control of the work processes to enhance the work adjustment of employees. Employees presenting proper emotional performance and being able to effectively manage self-emotion and reduce emotional labor would promote the work adjustment to the work.

**SUGGESTION**

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

1. Job characteristics in Environmental protection industry would influence an employee’s personal psychological state and further affect individual attitudes and behaviors. A manager in Environmental protection industry should help the employees, aiming at the loss on job characteristics, and provide proper space for the development to satisfy the needs for job characteristics. In this case, an employee could induce the work effectiveness and further promote work adjustment.
2. Managers in Environmental protection industry are suggested to pay attention to the employees’ performance and regularly record those with excellent performance for promotion at proper timing or rewards and affirmation so that the employees perceive the effort being seen. It would enhance employees’ work adjustment as well as retain talents in the company to promote employee loyalty.

3. Position rotation could be applied in Environmental protection industry to reduce employee perception of repetition and monotonicity. Besides, the basic-level employees could be increased the frequency to participate in discussions and suggestions in the practice of work systems and work methods. The creation of opportunities allows an employee finding out self-work value and meaning to enhance the perceived job characteristics and work adjustment.

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