The Relationship Between Employees' Job Satisfaction and Organizational Culture in Korea's Manufacturing Industry: Focusing on Online Training Participation as a Moderator

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Abstract—This study intends to address the relationship between job satisfaction of employees and organizational culture in Korea's manufacturing industry. In particular, this research addresses the role of online training participation as a moderator for the relationship between organizational culture and job satisfaction. Principal component analysis and hierarchical regression analysis were applied using the Korean Human Capital Corporate Panel (HCCP) Dataset. The result of this study indicates higher job satisfaction under Clan culture or Adhocracy and Market cultures. Also, online training participation can enhance employees' job satisfaction and online training participation has a moderating effect for Adhocracy and Market cultures and job satisfaction. Therefore, the manufacturing companies of Korea need to build Adhocracy and Market cultures and to encourage online training participation for employees' higher job satisfaction.

Keywords—Manufacturing Industry, Online Training Participation, Organizational Culture, Job Satisfaction, Education and Training

1 Introduction

Fierce global competition has brought importance of developing human resources to face new challenges in South Korea's manufacturing industry. Recently, the manufacturing industry has focused on enhancing their innovation and there is a need to change conservative and strict cultures of Korea's manufacturing industry to address new challenges in the era of industry 4.0 [1].

How to develop and retain talented employees has been a key concern, though relevant training becomes more critical. If talented employees are satisfied with their jobs, they would perform better and would stay with their organization. Therefore, organizations could reduce the retention and turnover of employees. Job satisfaction is influenced by diverse factors. In particular, the environment of employees has proven to be influential on job satisfaction. Organizational culture has been receiving more attention related to increasing job satisfaction because organizational culture also

impacts job satisfaction [2,3]. The studies of Lee and Yang demonstrated that online training influences job satisfaction positively and mediates the relationship between job satisfaction and turnover intention [4].

Previous studies highlighted the importance of training and education in explaining about the relationship between job satisfaction and organizational culture. For example, Kim, Lee, Cho and Kim showed informal learning mediates the relationship between job satisfaction and organizational culture [5]. Other studies like Lee demonstrated the relationship among organizational culture, education and training, organizational commitment, and human resource capacity and highlighted the role of education and training as a mediator [6]. It is clear that the mediating role of education and training has received recent spotlights. In particular, previous studies have paid their attentions to the types of organizational cultures in relations to employee engagement and stress, education and training, organizational effectiveness and trust, and emotional leadership [7,8,9,10]. Only recent studies addressed organizational culture and job satisfaction in the manufacturing industry although the industry shares a significant importance in the economy of Korea.

2 Literature Review

2.1 The relationship between Employees' Job Satisfaction and Organizational Culture in Korea's Manufacturing Industry

According to Cameron and Quinn, there are four types of organizational cultures which are called Hierarchy, Clan, Market and Adhocracy. Hierarchical Culture is based on a standardized structure and efficiency is important [11]. As hierarchy culture has a formalized structure, regulations and rules are stressed. In Clan Culture, organizations operate like families to promote cohesion, a humane work environment, employee loyalty, and group commitment. Collaboration is significant, and the culture values employees and their satisfaction to bring greater productivity. Market Culture stresses competency, productivity and positioning and is more results-oriented. This culture emphasizes competition in the market and achieving goals is highly regarded. Adhocracy Culture emphasizes creative and dynamics. This culture highlights new change and knowledge.

Effective organizations would establish a culture which brings higher employee satisfaction. The study of Lund proves Clan and Adhocracy Cultures improves job satisfaction but Hierarchical Culture is negatively related to job satisfaction [12]. Kim, Lee, Cho and Kim show that innovative and supportive cultures bring higher job satisfaction [13]. In particular, Lee indicates Adhocracy Culture is more positively related to effectiveness of education and training [14]. In specific culture, the impact of education and training can be related to job satisfaction more or less. Irrelevant and insufficient training methods may bring more negative job satisfaction. Proper employee training helps them to perform their job better with more enhanced knowledge [15].

2.2 The role of online training as a moderator

Specific education and training may serve as a moderator between the relationship between organizational culture and job satisfaction. Organizational cultures can influence each employee's job satisfaction and training activities [16]. Employees may not apply their new knowledge at companies which is required from their training due to the company's culture [17]. Nowadays, online training has been increasing and become popular due to flexibility and low cost to deliver training [18]. Because online training is accessible anytime and anywhere, employees in the manufacturing industry of South Korea which require intensive works can have more efficient training using online training. According to the types of organizational cultures, the effect of online training is differently influential to job satisfaction. Also, online training can affect the relationship between job satisfaction and organizational cultures. If employees receive online training, their job satisfaction can be enhanced. Organizational culture can matter as well. Under certain types of organizational cultures, online training participation is more enhanced and is related to higher job satisfaction. Inversely, some organizational cultures may not be positive for online training. In this sense, online training can work as a moderator for the relationship between job satisfaction and organizational culture. In spite of the importance of online training, online training has not been sought as a moderator for the relationship between job satisfaction and organizational cultures focusing on the manufacturing industry.

2.3 Theoretical framework

We established a theoretical framework based on the proposed relationship between and among online training participation, organizational culture, and job satisfaction. Assumedly, Korea's manufacturing industry has unique characteristics that affect employee job satisfaction. According to Cameron and Quinn, organizational cultures, including Adhocracy, Hierarchical, Clan, and Market Cultures, exist, but the composition of the cultures may be different in the manufacturing industry of Korea [19]. Therefore, this study assumes that there are distinct organizational cultures which have their own characteristics. Next, organizational culture was expected to influence job satisfaction, as found by Belias and Koustelios, who showed the relationship between organizational culture and job satisfaction [20]. Thus, this study establishes the relationship between job satisfaction and organizational cultures.

Also, online training and job satisfaction have been shown to have a statistically significant relationship from the previous literature, such as studies by Lin, Huang and Zhang [21]. Therefore, the relationship between job satisfaction and online training participation were sought in this study.

Figure 1 describes the theoretical framework for this study. In this theoretical framework, online training participation moderates the relationship between organizational culture and job satisfaction. Organizational culture is an independent variable and job satisfaction is a dependent variable, while online training participation serves as a moderator.

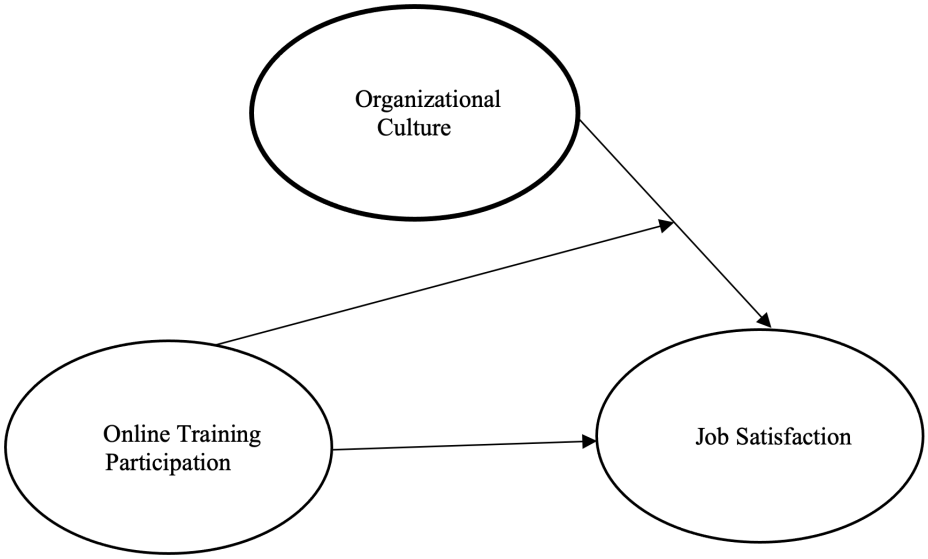

Fig. 1. Theoretical framework

The purpose of this study is to explore the relationship between job satisfaction and organizational culture in Korea's manufacturing industry. In particular, this paper addresses the role of online training as a moderator for the relationship between job satisfaction and organizational culture.

This study will have two main research questions: 1) What is the relationship between online training participation and job satisfaction in Korea's manufacturing industry? and 2) How does online training participation moderate the relationship between organizational culture and job satisfaction in Korea's manufacturing industry?

3 Research Method

3.1 Subjects

This study is based on the Human Capital Corporate Panel (HCCP) dataset released in 2017 by the Korea Research Institute for Vocational Education and Training (KRIVET) [22]. The 7th version of HCCP dataset shows how companies face developing professional expertise and skills, and how these are influential to organizational performance HCCP has utilized to search for HRD studies at diverse Korean organizations which have more than 100 employees. In total, 8,072 employees were investigated in this study.

3.2 Tools

The tools used in this study consisted of 12 questions on organizational cultures, one question on online training participation, and one question on the overall job satisfaction. Variables about the sociology of population includes birth year, gender, education level, position, and regular employment. Variables were evaluated for level of agreement using a five-point Likert-type scale (1 = strongly disagree to 5 = strongly agree).

3.3 Data Analysis

To address the first research questions, the researcher utilized principal component analysis to identify differences between groups and find the characteristics of organizational cultures in South Korea. For the second research question, regression analysis was utilized to examine the relationship between organizational cultures and job satisfaction. To distinguish culture types, the rotated principal component analysis was implemented and three culture types were found.

4 Research Results

4.1 Characteristics of the population

In this study, 8,042 employees were analyzed. In total, male employees are 6,547 (81.1%) while female employees are fewer, 1,525 (18.9%) of the total subjects. This result indicates the majority of employees are males and the number of females is quite limited. In addition, 7,976 employees are regular position and 96 employees are non-regular employees. Usually, regular employees work on regular payroll without any fixed time contracts and normally will continue working until they reach their retirement age in South Korea. But non-regular employees have short-term or fixed-term appointments and may work for some limited period.

Originally, almost half of the Korean employees work as staff/chief; this number is 48.3% of all Korean employees participating in this study. The second largest number of Korean employees are managers. The number of managers is 1,613, constituting 20.1% of Korean employees sampled. Assistant managers are 1,110 and account for 13.7% of total Korean employees. Senior managers constitute 9.5% (767) of all employee positions (See Table 1).

Also, 2,498 (31%) employees receive online training and 5,574 (69%) employees do not participate in online training as found in Figure 2. It indicates lower online training participation in South Korea's manufacturing industry.

Table 1. General characteristics of research respondents

		Frequency	Percentage (%)
Age	20's	495	6.1
	30's	2,773	34.4
	40's	2,804	34.7
	50's	1,714	21.2
	More than 60's	286	3.5
Gender	Male	6,547	81.1
	Female	1,525	18.9
Position	Staff/chief	4,552	48.3
	Assistant Managers	1,110	13.7
	Managers	1,613	20.1
	Senior managers	767	9.5
Education	Middle school	141	1.7
	High school	2,727	33.8
	Two-year college	1,362	16.9
	Four-year university	3,500	43.4
	Graduate school	342	4.2
Regular employment type	Regular	7,976	98.8
	Non-regular	96	1.2
Total		**8,042**	**100 (%)**

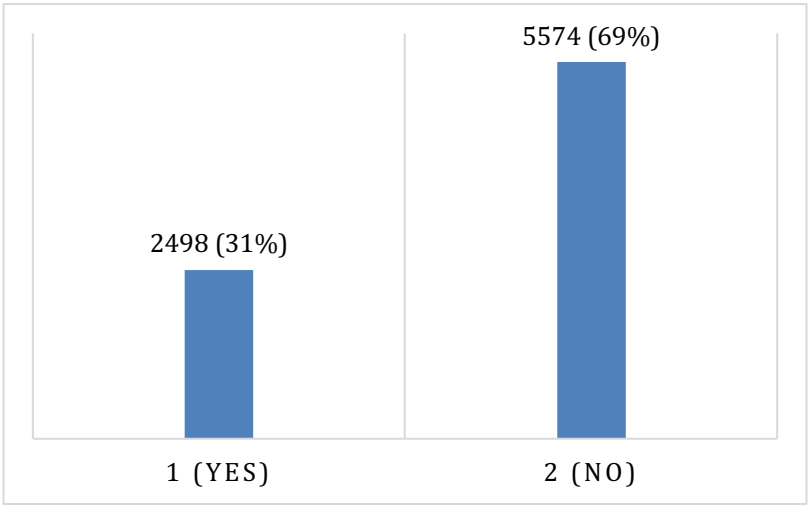

Fig. 2. Online training participation

4.2 Descriptive characteristics of the types of organizational culture

To distinguish the validity of organizational cultures, principal component analysis was conducted using varimax. The result of Principal Component Analysis indicates three culture types. The first culture includes the components of Adhocracy and Market Cultures. The second culture is mainly composed of Clan Culture and the last culture is more likely to have the components of Hierarchical Culture (See Table 2).

Table 2. Result of rotated principal component analysis

Culture type	Items	Factor1	Factor2	Factor3
Adhocracy & Market Cultures	1. Change is encouraged	.725	.373	-.021
	2. Relevant reward for changes	.737	.395	-.041
	3. Creative people preferred	.717	.278	-.013
	4. Professional expertise and competency for tasks are important	.634	.320	.307
	5. Evaluation is conducted for competency and Performance	.684	.239	.301
Clan Culture	6. Family-like atmosphere	.305	.766	-.022
	7. Conformity is stressed	.290	.823	.125
	8. Teamwork is more important	.331	.782	.147
	9. Official rules and regulations are stressed	.284	.560	.391
Hierarchical Culture	10. Communication or information flow is Downward	-.026	.307	.741
	11. A sense of hierarchy is stressed	.053	.002	.815
	12.Competitiveness and performance are important	.554	-.087	.593

4.3 Correlations between and among variables

Firstly, online training participation has a significantly positive correlation with job satisfaction ($r = .121$, $p < .001$) and it means online training brings higher job satisfaction. Furthermore, online training participation has a significantly positive correlation with organizational cultures including Adhocracy and Market Cultures ($r = .446$, $p < .001$), Clan Culture ($r = .456$, $p < .01$) and Hierarchical Culture ($r = .124$, $p < .01$), In other words, online training participation is correlated to all types of organizational cultures and brings more higher impacts on Adhocracy and Market Cultures or Clan Culture. Also, birth year ($r = -.038$, $p < .001$), education ($r = .112$, $p < .001$), and gender ($r = .067$, $p < .001$) are correlated to job satisfaction. Regular employment is not statistically significant to job satisfaction but is negatively correlated to other variables including online training participation ($r = -.050$, $p < .001$), and education ($r = -.061$, $p < .001$). Table 3 shows more detailed correlations.

Table 3. Results of Correlations

	1	2	3	4	5	6	7	8	9	10
1. Overall job satisfaction	1									
2. Adhocracy and Market Cultures	.446**	1								
3. Clan Culture	.456**	.693**	1							
4. Hierarchical Culture	.124**	.374**	.348**	1						
5. Online training	.121**	.154**	.152**	.053**	1					
6. Birth year	-.038**	-.011	.031*	-.050**	.027*	1				
7. Gender	.067**	.057**	.051**	.028*	.094**	-.171**	1			
8. Education	.112**	.099**	.149**	.055**	.204**	.292	.143**	1		
9. Position	.150	.150	.122	.089	.190	-.314	.274	.440	1	
10. Regular Employment	.019	-.009	-.004	-.030**	-.050**	.018	-.035**	-.061**	-.091**	1

*p<.05, **p<.01, ***p<.001

4.4 Results of hierarchical regression analysis

To know about the role of the online training participation as a moderator, hierarchical regression was implemented. Birth year, gender, education, regular employment and position were entered in Model 1 as a biographical control variable. Table 4 shows that education(ß = .06, p <.001), regular employment(ß = .04, p <.01), position(ß = .12, p <.001) and gender(ß = .-03, p <.05) had significant effects in predicting employees' job satisfaction. When organizational culture types were entered in Model 2, 25.4% of the variance in job satisfaction can be explained(ΔR2=. 254, p<.001; F= 819.037, p<.001). All culture types were significantly related to job satisfaction in South Korea's manufacturing industry. Adhocracy and Market Cultures shows a positive relationship with job satisfaction (ß =.264, p<.001) and Clan Culture indicates a positive relationship with job satisfaction as well (ß =.291, p<.001). Also, Hierarchical Culture shows a negative relationship with job satisfaction (ß =-.083, p<.001). When employees perceive their culture is Adhocracy and Market Cultures or Clan Culture, their job satisfaction becomes higher. But employees toward Hierarchical Culture will have lower job satisfaction. When employees perceive their organizational culture is Hierarchical Culture, their job satisfaction becomes lower. In Model 3, online training participation was entered and it is demonstrated that online training participation is a significant predictor for job satisfaction (ß = .026**, p <.001), (Δ R2=.255, p< .001; F= 6.700, p< .001). R2 increases .001 and this shows 0.1 % of increase compared to the second model and this is statistically significant at the level of p <.001. It means online training participation leads to higher job satisfaction.

For the Model 4 where the interaction terms of organizational cultures and online training participation were entered, it can be seen that organizational cultures and online training participation are statistically significant predictors for job satisfaction and that the interaction demonstrates its significance (ΔR2=.256, p< 01; F=4.879, p< .001). Also, R2 increases .001 and this indicates 0.1 % of higher percentage compared to the previous model and this is statistically significant at the level of p <.001. This indicates

the interactions between online training participation and organizational cultures are statistically significant. But the interaction term between online training participation and organizational culture shows different results according to the types of organizational cultures. Only, the interaction between online training participation and Adhocracy and Market Cultures is statistically significant (ß =.044, p <.05).

The other interaction terms between online training participation and Clan Culture (ß =.008, p> .05) and between online training participation and Hierarchical Culture (ß =.013, p >.05) are not statistically significant. This finding indicates that online training participation has a different impact on job satisfaction of employees, depending on the types of organizational cultures. Particularly, online training participation is effective for job satisfaction under Adhocracy and Market Cultures. Table 4 shows more detailed analysis results.

Table 4. Results of hierarchical regression analysis

Variables	Model 1			Model 2			Model 3			Model 4		
	B	***SE***	***β***	***B***	***SE***	***β***	***B***	***SE***	***β***	***B***	***SE***	***β***
Birth Year	-.001	.001	-.020	-.003	.001	-.040 **	-.003	.001	-.041 ***	-.003	.001	-.041 **
Education	.040	.009	.059 ***	.016	.008	.023*	.013	.008	.019	.014	.008	.021
Regular Employment	.217	.069	.035 **	.183	.060	.029 ***	.188	.060	.030*	.196	.060	.031*
Position	.057	.007	.119 ***	.030	.006	.061 ***	.028	.006	.059 ***	.028	.006	.058 ***
Gender	.047	.020	.027*	.029	.017	.017	.027	.017	.016	.027	.017	.016
Adhocracy & Market Culture				.275	.014	.264 ***	.273	.014	.261 ***	.271	.014	.259 ***
Clan Culture				.299	.014	.291 ***	.298	.014	.289 ***	.300	.014	.291 ***
HierarchicalCulture				-.092	.012	-.083 ***	-.092	.012	-.083 ***	-.089	.012	-.080 ***
Online Training							.037	.014	.026 **	.032	.014	.023 *
Adhocracy & Market Culture * online training										.098	.029	.044 *
Clan Culture* online training										-.018	.029	-.008
Hierarchical Culture* online training										-.031	.024	-.013
R2	.028			.255			.256			.257		
Adjusted R2	.027			.254			.254			.255		
△R2	.028			.227			.001			.001		
F	38.245 ***			815.626 ***			275.662 ***			213.408 ***		
N	8072			8072			8072			8072		

*p<.05, **p<.01, ***p<.001

5 Conclusions and Implications

The purpose of this study was to address how organizational cultures according to Cameron and Quinn affect job satisfaction and whether online training participation as a moderator works the relationship between job satisfaction and organizational cultures. The analysis results and discussion are as follows.

Firstly, all of the organizational types are statistically significant to job satisfaction but Hierarchical Culture lowers employees' job satisfaction. It means organizational cultures can influence job satisfaction in South Korea's manufacturing industry, which is similar to other previous studies like Kim [23]. In particular, job satisfaction under Clan Culture or Adhocracy and Market Cultures increases and shows more positive relationship with organizational cultures. In other words, employees are more satisfied with their job when their organizational cultures have the characteristics of Clan or Adhocracy and Market Cultures. This suggests that the manufacturing industry needs to foster more friendly and innovative culture characteristics and to be out of hierarchy and regulations. In the past, hierarchical regulations and order could be effective for management. Now, it is obvious that employees in the manufacturing industry want to work in an atmosphere of innovation, creativity and flexibility.

Secondly, it is found that the participation in online training can enhance employees' job satisfaction. The result of this study is lined with Lee and Yang [24].

As online training is accessible anytime and anywhere, employees in the manufacturing industry who are under tight schedules and do not have enough time for learning and training, online training works as a development source and can bring higher job satisfaction. The online training participation has been regarded as an effective and efficient training sources for employees. Therefore, the manufacturing industry needs to promote more online training participation for employee development and their job satisfaction. Currently, the online training participation is largely or partially funded by the manufacturing companies in Korea. As the cost of online training participation can be burdensome for employees in spite of their willingness to be educated further, the manufacturing companies should ensure their budget for online education and training and encourage employees' active participation for online training.

Lastly, online training participation has a moderating effect for Adhocracy and Market Cultures and job satisfaction. It seems the characteristics of Adhocracy and Market Cultures are more suitable and positive for online training participation. In general, Adhocracy and Market Cultures stress newer ideas, more creativity, freedom and competitiveness. Online training can be an effective training source for employees who respect the values of innovation and competitiveness for their development. In the end, they will have more job satisfaction due to online training participation under Adhocracy and Market Cultures. But online training participation does not have a moderating effect for Clan Culture or Hierarchical Culture. Therefore, the manufacturing companies which have characteristics of Clan or Hierarchical Culture should consider different training methods other than online training. This indicates that the manufacturing industry in South Korea needs to build Adhocracy and Market

Cultures and to encourage online training participation for employees' higher job satisfaction.

The limitation of this study is that it is only applicable to South Korea's manufacturing industry. Therefore, it cannot be generalized to employees in other industries like banking and commerce. Future studies need to consider the role of online training related to job satisfaction and organizational culture in different industries. Also, other variables like employees' well-being aspects may provide more insightful research.

6 References

[1] J. Kim, M. Lee, A. Cho & S. Kim (2019). The mediating effects of informal learning on the relationship between organizational culture and characteristics of newcomers' job satisfaction, *The Korean Journal of Human Resource Development Quarterly, 21(1)*, 67-92. https://doi.org/10.18211/kjhrdq.2019.21.1.003

[2] V. Bellou (2019). Organizational culture as a predictor of job satisfaction: The role of gender and age. *Career Development International, 15(1)*, 4-19. https://doi.org/10.1108/13620431011020862

[3] X. Zhang & B. Li (2003). By exploring the relationship between organizational culture and employee satisfaction, it is possible to find a way to improve employee satisfaction by making cultural changes, *International Journal of Trade, Economics and Finance, l4(1)*, 48-54. https://doi.org/10.7763/ijtef.2013.v4.259

[4] Y. Lee & D, Yang (2016). An empirical study on causal relationship between the degree of internet educational training and job satisfaction, turnover intention: Training effect as mediator, *Asia Pacific Journal of Business Venturing and Entrepreneurship, 11(3)*, 157-167. https://doi.org/10.16972/apjbve.11.3.201606.157

[5] J. Kim, M. Lee, A. Cho & S. Kim (2019). The mediating effects of informal learning on the relationship between organizational culture and characteristics of newcomers' job satisfaction, *The Korean Journal of Human Resource Development Quarterly, 21(1)*, 67-92. https://doi.org/10.18211/kjhrdq.2019.21.1.003

[6] H. Lee. (2017). Structural analysis of innovative organizational culture, education and training, organizational commitment, and human resource capacity: Analysis of HCCP panel data, *Journal of Culture Industry, 17(4)*, 135-145.

[7] D. Lee. (2017). The effect of organizational culture and organization character on organization commitment and organization stress-focused on moderating effect of gender, *Journal of Human Resource Management Research, 24(4)*, 83-104. https://doi.org/10.14396/jhrmr.2017.24.4.83

[8] H. Lee. (2017). Structural analysis of innovative organizational culture, education and training, organizational commitment, and human resource capacity: Analysis of HCCP panel data, *Journal of Culture Industry, 17(4)*, 135-145.

[9] D. Jeong & B. Chun. (2019). The mediation effect of trust and communication on relationship between organizational culture and innovative behavior: focused on manufacturing business," *Asia-Pacific Journal of Business, 10(1)*, 2384-3934. https://doi.org/10.32599/apjb.10.1.201903.39

[10] K. Kang & H. Oh. (2017). Effects of Emotional/Primal Leadership on Job Satisfaction and Organizational Commitment through Mediating Role of Organizational Culture in the Food

Service Industry. *Journal of the Korea Convergence Society*, *8(7)*, 245-251. DOI:10.15207/JKCS.2017.8.7.245

[11] K. S. Cameron & R. E. Quinn. (2006). *Diagnosing and changing organizational culture: Based on the competing values framework, Jossey-Bass*

[12] D. B. Lund. (2003). Organizational culture and job satisfaction, *Journal of Business and Industrial Marketing, 18(3)*, 219-236. https://doi.org/10.1108/0885862031047313

[13] J. Kim, M. Lee, A. Cho & S. Kim. (2019). The mediating effects of informal learning on the relationship between organizational culture and characteristics of newcomers' job satisfaction, *The Korean Journal of Human Resource Development Quarterly, 21(1)*, 67-92. https://doi.org/10.18211/kjhrdq.2019.21.1.003

[14] H. Lee. (2017). Structural analysis of innovative organizational culture, education and training, organizational commitment, and human resource capacity: Analysis of HCCP panel data, *Journal of Culture Industry, 17(4)*, 135-145.

[15] Y. Lee & D. Yang. (2016). An empirical study on causal relationship between the degree of internet educational training and job satisfaction, turnover intention : Training effect as mediator, *Asia Pacific Journal of Business Venturing and Entrepreneurship, 11(3)*, 157-167. https://doi.org/10.16972/apjbve.11.3.201606.157

[16] H. Kim. (2016). *The relationship between and among job satisfaction, training and organizational culture in South Korea's manufacturing industry*. (Electronic Dissertation). Retrieved from https://etd.ohiolink.edu/

[17] D. Jeong & B. Chun. (2019). The mediation effect of trust and communication on relationship between organizational culture and innovative behavior: focused on manufacturing business, *Asia-Pacific Journal of Business, 10(1)*, .2384-3934. https://doi.org/10.32599/apjb.10.1.201903.39

[18] J. Batalla-Busquets & M. Martínez-Argüelles. (2014). Determining factors in online training in companies, The *International Journal of Management Education, 12*, 68-79. https://doi.org/10.1016/j.ijme.2014.01.002

[19] K. S. Cameron & R. E. Quinn. (2006). *Diagnosing and changing organizational culture: Based on the competing values framework, Jossey-Bass*

[20] D. Belias & A. Koustelios (2014). Organizational culture and job satisfaction: a review. International Review of Management and Marketing, *4*(2), 132-149.

[21] C. Y. Lin, C. Huang & H. Zhang (2019). Enhancing Employee Job satisfaction via E-learning: The Mediating Role of an Organizational Learning Culture, *International Journal of Human–Computer Interaction*, *35*(7), 584-595, https://doi.org/10.1080/10447318.2018.1480694

[22] R. V. Dawis & L. H. Lofquist (1984). *A psychological theory of work adjustment*. Minneapolis. MN: University of Minnesota Press.

[23] Korea Research Institute for Vocational Education & Training (KRIVET) (n. d.). *The Human Capital Corporate Panel (HCCP) survey*. Retrieved from https://www.krivet.re.kr/eng/eu/eh/euDAADs.jsp

[24] H. Kim. (2016). *The relationship between and among job satisfaction, training and organizational culture in South Korea's manufacturing industry*. (Electronic Dissertation). Retrieved from https://etd.ohiolink.edu/

[25] Y. Lee & D. Yang. (2016). An empirical study on causal relationship between the degree of internet educational training and job satisfaction, turnover intention: Training effect as mediator, *Asia Pacific Journal of Business Venturing and Entrepreneurship, 11(3)*, 157-167. https://doi.org/10.16972/apjbve.11.3.201606.157

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8 Appendix

Variables from the HCCP dataset are used in this study as follows:

I. Organizational Culture
   1) Encouraging change and new initiatives
   2) Adequate compensation for innovation
   3) Prefer creative people over sincere people
   4) A family-like atmosphere is formed
   5) Focusing on the unity and unity of prints
   6) Teamwork is more important
   7) Emphasis on formal procedures, rules and policies
   8) Communication and information flow are top-down
   9) Organizing an atmosphere that emphasizes consciousness
   10) Emphasizing competitive atmosphere and achievement
   11) Specializing in the professional knowledge and skills necessary for task performance
   12) Evaluation based on job performance and performance

II. Job Satisfaction
   1) Overall, how much are you satisfied with your job?

III. Online training participation
   1) Have you participated in online training?

IV. Demographic Variables
   1) Birth year
   2) Gender
   3) Education
   4) Regular Employment
   5) Position