

Original Article

Different Effects of Workers' Trust on Work Stress, Perceived Stress, Stress Reaction, and Job Satisfaction between Korean and Japanese Workers

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Objectives: This study was conducted to investigate the effect of trust on work stress. Trust can be classified into three dimensions; social trust, institutional trust, and trust in others. The relationship between work stress and trust is regarded as having three components. First, trust has an influence on work stressors as an antecedent variable; secondly, trust modifies the effect of the various stressors, and finally, trust is one of the stressors.

Methods: Data for this study was collected by interviews and self-administered structured questionnaires from 376 Korean and 77 Japanese workers in small businesses. Subjects were selected by two stage stratified random sampling from the working population of manufacturing industries.

Results: Three different positions of trust are significantly related with the stress causation web. Social trust, institutional trust and trust in others significantly influence different work stressors in both Korean and Japanese workers. Three different kinds of trust influence work stressors among Korean workers, but institutional trust has no impact on work stressors among Japanese workers. As a moderating variable for perceived stress, distrust in an employer is statistically significant in both groups. However, stress symptom prevalence among Korean workers is modified by caution, trust in career development, and distrust in co-workers, but that of Japanese workers is modified only by distrust in employer. Job satisfaction of Korean workers is affected by general trust, utility of relation, institutional trust and trust in employer, but among Japanese workers, caution, reputation and trust in employer have influence on job satisfaction.

Conclusion: The effect of trust on work stress, perceived stress, stress reaction and job satisfaction are different among Korean workers and Japanese workers. Three dimensions of trust have three different positions as antecedent, moderating and mediating factors in stress causation.

Key Words: Work stress, Social trust, Institutional trust, Organizational culture, Comparative study

Introduction

The safety and health of workers can be protected by their

own behavior, but such behavior is always constrained by organizational culture. For example, compliance with the wearing of a protective device can be affected by the peer pressure of co-workers who do not wear such a device.

This kind of group pressure represents the safety culture in the workplace. Even though they may be under the same safety culture in the same work setting, every worker does behave differently because of the different effects of safety culture as viewed through their own perception. When he or she deviates

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from the behavior of the work group, the result can be informal or formal punishment. As illustrated above, organizational culture is one of the most important factors influencing workers to act safely and demonstrate healthy behavior. Work related stress, as a barrier to work productivity and a satisfying working life, is becoming an important problem in industrial societies. Stress can be a necessary stimulus for human life, but it can also have adverse health effects. Work related stress is due to many factors, some of which are affected by organizational culture.

Despite the fact that organizational culture has been the subject of studies in social and organizational psychology for several decades, this aspect of work is relatively neglected in the field of work related stress. Recently, there are some studies which investigated the relationship between organizational culture and stress at work but each study postulates different types of mechanisms linking culture to stress. For example, perceived organizational support and trust, as cultural factors, moderate and mediate the effects of work stressors, such as role conflict and role ambiguity, on job related tension, job satisfaction and health status [1-4]. Alternatively, the positions of culture and employee roles in the causal sequence leading to stress can be reversed, suggesting that organizational culture defines roles and role problems [5]. Another type of hypothesis proposes a direct relationship between organizational culture and stress. Based on this idea, organizational culture is regarded as a stressor [6-8] or a consequence of stress [9,10].

Among the various aspects of organizational culture, in this study, trust was selected to determine its effect on worker stress. Trust is as much a part of the culture as the shared values and beliefs of any organizational group [11].

Trust between individuals and groups provides the basis for social order, and is the mortar of solidarity and integration. Social order is characterized by the predictability of social life and is maintained by the existence of habitual rules and social norms. Trust facilitates stability, cooperation and cohesion [12]. Granovetter [13] and Lewis and Weight [14] define trust as a willingness to be vulnerable to others, based on the prior belief that those others are trustworthy [15-17]. One of the bases of trust is consistency of behavior and predictability, trust therefore offsets uncertainty to some degree [8,18].

Workers' trust can be classified into three different categories of social trust, institutional trust and trust in others. Social trust is reflected by social culture, but organizational trust can be defined by the degree of trustfulness of an organization. Trust in others includes several categories according to types of others; such as employer and co-workers in workplace. Because of the various dimensions of trust, it is very useful to

investigate the relationship between trust and stress. This study was designed to determine the different effects of different trust dimensions on stress, including a comparison of its relationship between Korean and Japanese workers.

Sub-categories of trust implies there are different dimensions of social relationships of workers in a workplace. Social trust is the one of the elements reflected in social culture and institutional trust is the reflection of working rules and norms of work activities. Trust in others in the workplace, as a final subcategory of trust, is a proxy indicator of human relationships among various members in a workplace. These different dimensions of trust in a workplace can influence work stress and the perception and reaction to work stress.

Work related stress is influenced by work stressors, such as work load, work control, group conflict, decision control, and job instability. These work stressors are induced by the type of work, for example, mental or physical work, team or solo work, skilled or unskilled work, supervised or supervising work, human relations, and other physical working conditions, etc. Work related stress is assessed by several methods, such as diagnosis of stress induced outcome, and a worker's perception of stress at work, etc. Work stress can generally be investigated using different indicators such as stressors, stress perception and stress reactions. In the causal sequence of stress effect, there is basic causation between stressors and the experience of stress, and also the perception of stress and stress reactions. In this study, perception of stress and stress reaction were selected as dependent variables. Perception of stress is defined as worker's perceived stressors or stress as power. Stress reaction is defined as attitudes or behaviors that orient one toward coping strategies or experiences of the consequences of stress. In the causal sequence of work stress, trust can be positioned differently. Firstly, trust can have an influence on work stressors; secondly, it can moderate the effect of work stressors; thirdly, it can moderate the stress reactions. Based on these different roles of trust in the causation of work stress, the following three investigatory models were constructed (Fig. 1).

Model 1 regards trust as an antecedent variable to influence work stressors. Model 2 postulates trust as moderating variables between work stressor and perceived stress. Model 3 also shows trust as a moderating variable for modification of stress reactions. Each model is oriented toward stress management strategy. Based on Model 1, trust can be a useful factor for primary prevention of stress and to reduce work stressors. Models 2 and 3 suggest that trust can be helpful to mitigate or diminish perceived stress and stress reactions as a secondary prevention of stress. Trust, as one of the cultural factors, is dependent on the other person's social, cultural

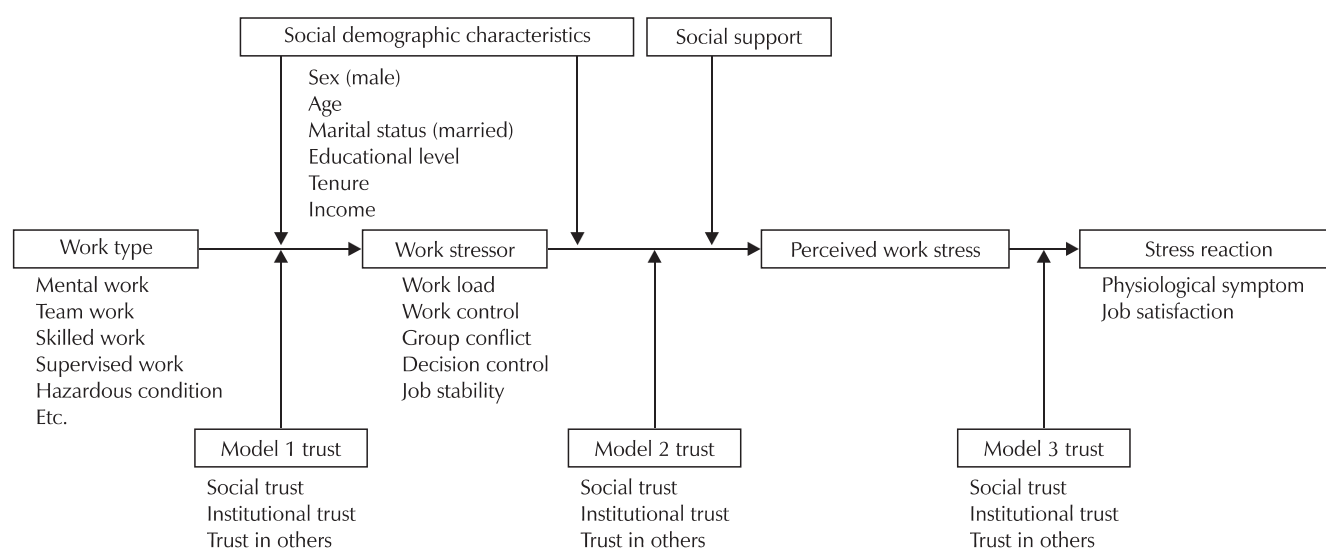


Fig. 1. (Model 1) Work stressors = $f\{\text{work type, social trust, institutional trust, trust in others, social demographic characteristics}\}$ - Trust as antecedent variable for work stressors. (Model 2) Perceived stress = $f\{\text{work stressors, social trust, institutional trust, trust in others, social demographic characteristics, social support}\}$ - Trust as moderating or independent variable in the course of stress perception. (Model 3) Stress reaction = $f\{\text{perceived stress, social trust, institutional trust, trust in others}\}$ - Trust as a moderating variable in the course of stress reaction.

and historical background. Even though they share the same oriental culture, Korea and Japan have some different values, norms and attitudes at work. Each model was tested in Korean and Japanese workers to compare the effects of trust on stress.

Materials and Methods

The study group of 453 workers, was composed of 376 Korean workers from 118 companies and 77 Japanese workers from 40 companies. The respondents of both countries were from small and medium sized firms, under 120 employees, and were employed in the same industries, such as construction and manufacturing. Simple random sampling was used for selecting workers by age and sex distribution from selected firms in both countries. Data was collected from workers by self-administered and structured questionnaires.

The Organizational Trust Inventory [19] and Yamagishi's Scale of Trust [20] were used to measure workers' trust. Field surveys were conducted in both countries from February to April, 2001. Work related stressors, such as role ambiguity, group conflict, work load, work control etc., were selected from the NIOSH Generic Job Stress Questionnaire [21]. Social demographic characteristics and work type were also included in the survey questionnaire.

Workers' trust is composed of three different aspects; one is the social trust, second is the institutional trust, and the third is the trust in others, specifically employer and co-workers. The social trust is composed of six sub-scales: general trust,

caution, knowledge based trust, utility of relation, reputation, and honesty scale. Institutional trust is measured by perception of equity concerning chance of career development and the working rules. The Organizational Trust Inventory, developed by Cummings and Bromiley [19], was modified to measure the trust in others. The trust in others is measured by two different "others," such as employer and co-workers. The trust in others, is classified into two factors; one is the trust and the other is the distrust in others.

Sub-categories of work stressor, work type, social trust, institutional trust and trust in others are as follows:

- work stressors: work load, work control, decision control, group conflict, job instability
- work type: mental work, team work, personal contacted work, skilled work, non-member contacted work, hazardous work condition, supervised work, handling of hazardous materials
- social trust: general trust in the chance of career development, trust in working rules
- trust in others: trust in employer, distrust in employer, trust in co-workers, distrust in co-workers

Perceived stress was measured by agreement to the sentence: 'feel stress by work' using a 5-point scale. Stress reaction was measured by two different dimensions; one is the physiological dimension, such as stress symptom prevalence, as measured by summation of subjective severity of non-specific stress symptoms using a 5-point scale. Stress symptoms include non-specific symptoms such as 'be anxious,' 'be depressed,'

Table 1. Distribution of the general characteristics of Korean and Japanese workers

Characteristics	Category	Korean		Japanese		χ^2
		Cases	%	Cases	%	
Sex	Male	261	69.4	71	92.2	16.96*
	Female	115	30.6	6	7.8	
Age (yr)	Under 30	171	45.5	17	22.1	69.47*
	30-39	148	39.4	18	23.4	
	40-49	46	12.2	24	31.2	
	50 & over	11	2.9	18	23.4	
Marital state [‡]	Unmarried	181	48.1	28	36.4	3.17
	Married	193	51.3	46	59.7	
	Others	2	0.5	0	0	
Educational level [‡]	Junior high school	10	2.7	3	3.9	11.58 [†]
	Senior high school	111	29.5	11	14.3	
	College	86	22.9	16	20.8	
	University	161	42.8	40	51.9	
	Graduate	8	2.1	5	6.5	
Occupation [‡]	Professional	100	26.6	44	57.1	41.62*
	Clerical	170	45.2	12	15.6	
	Sales & services	24	6.4	10	13.0	
	Productive	82	21.8	8	10.4	
Industry [‡]	Construction	32	8.5	13	16.9	120.64*
	General manufacture	42	11.2	39	50.6	
	Metal manufacture	115	30.6	5	6.5	
	Chemical manufacture	18	4.8	15	19.5	
	Other manufacture	169	44.9	4	5.2	
Size of firm (workers)	Under 30	3	0.8	15	19.5	142.33*
	30-49	22	5.9	31	40.3	
	50-99	293	77.9	27	35.1	
	100-120	58	15.4	4	5.2	
Job tenure [‡] (yr)	Under 5	200	53.2	19	24.7	72.07*
	5-9	101	26.9	15	19.5	
	10-14	38	10.1	8	10.4	
	15 & over	31	8.2	35	45.5	
Total		373	100.0	77	100.0	

*p < 0.01.

[†]p < 0.05.[‡]Missing cases were excluded.

'cannot have a deep sleep,' 'lose appetite,' 'be nervous,' 'cannot concentrate on work,' 'be tired after work,' 'headache,' 'shortness of breath when no exercise.' The other measurement was the psychological dimension, which included job satisfaction, as measured by agreement to the sentence 'I am satisfied with my job' using a 5-point scale.

In order to investigate the position of trust in the causation sequence of work stress based on the different models, stepwise multiple regression analysis was used because the direct method of multiple regression analysis can be biased due to multicollinearity of independent variables. The level of analysis for this study was an individual psychological one. Therefore, social and organizational levels of trust can be biased through individual perception [22].

Results

The distribution of respondents by general characteristics between Korean and Japanese workers was not equal because of different populations. In spite of an unequal distribution of respondents by general characteristics, the trust effect on work related stress could be analyzed independently for

each country. The percentage of Korean male workers was 69.4%, and that of female workers was 30.6%. Most of the Korean workers were <40 years old and about half of the respondents were married. According to the educational levels, 44.9% of respondents were at or above a university level. The characteristics of Japanese worker respondent were different from those of Korean workers. The educational level of Japanese respondents was more uniform than that of Korean workers. Because of different characteristics between the 2 groups, a simple comparison could not be applied to the study subjects (Table 1).

There were no significant differences of perceived stress between Korean and Japanese workers, but prevalence of stress symptoms of Japanese workers was higher than that of Korean workers. Except for the reputation scale of social trust, there were differences between Korean and Japanese workers in the levels of the various types of trust.

As a whole, the level of social trust of Korean workers was higher than that of Japanese workers, but the level of caution was higher in the group of Japanese workers. Trust in work rule was lower among Korean workers than among Japanese workers, but trust in career development was the

Table 2. Distribution of the stress symptoms, perceived stress and trust between Korean and Japanese workers

Characteristics	Category	Korean		Japanese		t-value
		Mean	SD [§]	Mean	SD [§]	
Stress reaction	Symptom prevalence	24.05	6.05	25.45	4.39	-2.31 [†]
Perceived stress		3.49	1.06	3.43	0.91	0.49
Social trust	General trust	7.71	1.40	6.52	1.61	5.97*
	Caution	5.90	1.48	6.30	1.32	-2.14 [†]
	Knowledge based trust	8.00	1.37	6.70	1.39	7.55*
	Utility of relation	7.44	1.44	6.71	1.38	4.03*
	Reputation	6.44	1.53	6.39	1.39	0.25
	Honesty	6.34	1.57	5.95	1.23	2.39 [†]
Institutional trust	Trust on work rule	3.01	0.88	3.21	1.00	-1.67 [‡]
	Trust on career development	2.77	1.01	2.92	0.98	-1.13
Trust on others	Trust on employer	24.17	5.38	22.38	3.02	3.92*
	Distrust on employer	13.45	4.05	15.13	2.48	-4.62*
	Trust on co-workers	26.09	4.20	21.69	3.27	9.56*
	Distrust on co-workers	12.20	3.51	15.37	2.63	-8.64*

SD: standard deviation.

*p < 0.01.

[†]p < 0.05.

[‡]p < 0.10.

same in both groups. There were significant differences for all types of trust in others between Korean and Japanese workers. The levels of trust in employer and co-workers were higher than those of Japanese workers, but the levels of distrust in employer and co-workers of Korean workers were lower than those of Japanese workers (Table 2).

There were some differences in the results from testing Model 1, which postulated that trust influences work stressors among both Korean and Japanese workers. First of all, job instability was affected by reputation and trust in employer among Korean workers, but there was no effect of trust on job instability among Japanese workers. When there is a low level of general trust, such as social trust, trust in employer and trust in others, job instability will be high among Korean workers. Work control, as a work stressor, is influenced by reputation, trust in career development, trust in working rules, and trust in employer among Korean workers, but among Japanese workers, only trust in co-workers had an effect on work control. When institutional trust, such as trust in career development and working rules, and trust in employer are high, the level of work control will be high. However, when the level of reputation is high, the level of work control will be low among Korean workers. Among Japanese workers, trust in co-workers was positively related to work control. Work load was less influenced by trust. Among both groups, social trust had an effect on work load. Among Korean workers, only knowledge based trust contributed to work load positively, but among Japanese workers only caution, had a positive effect on the work load. Among Korean workers, work conflict was influenced by caution, utility of relation, trust in career development, working rule, distrust in employer and distrust in co-workers. In the group of Japanese workers, reputation and trust in co-workers had significant effects. Among Korean workers, when the level of caution was high, utility of relation was low, the level of institutional trust was low, distrust in employer and co-workers was high, and the level of work conflict was high. However, when the level of reputation and trust in co-workers were high, the level of work conflict was high among Japanese workers. Decision control was also influenced by utility of relation, trust in employer, distrust in employer and distrust in co-workers among Korean workers, but only two kinds of trust, such as honesty and trust in co-workers, affected decision control among Japanese workers. Korean workers with a high level of utility of relation, trust in employer, distrust in employer and low level of distrust in co-workers showed a high level of decision control. However, Japanese workers with low levels of honesty, and high levels of trust in co-workers, showed a high level of decision control.

As stated above, one outstanding difference in the trust effect on work stressors between Korean and Japanese workers, is the influence of institutional trust. Among the Japanese workers, all types of work stressors were unaffected by institutional trust, but among Korean workers, work control and work conflict, were affected by institutional trust. Therefore, job instability, work load, and decision control were not influenced by institutional trust in both groups. Within the trust in others group, trust and distrust in employer had no effect on type of work stressors among Japanese workers. One of the similar results between Korean and Japanese workers from testing Model 1, was the effect of trust on work load. There was no effect of institutional trust or trust in others on work load. These results mean that improvement of institutional trust can contribute to stress management through reduction of work stressors only among Korean workers. The trust and distrust in employer can be used as a strategy to reduce work stressors only among Korean workers.

This means that a Korean worker's relationship with an employer can be one of the most important factors for reducing work stressors. Trust and distrust in others are based on human relationships in and out of workplace. In both groups, relationships with co-workers impacted the work stressors, such as work conflict and decision control. Therefore, management of human relationships in a work setting may be a important strategy for stress management (Table 3).

The primary strategies of intervention for stress management have focused on stressor reduction. These interventions have been mostly concerned with modifying environmental stressors by direct action to eliminate or reduce negative impacts on the individuals. Human relationship, including trust, is one of the environmental stressors in the workplace. Model 1 has implications for using primary stress prevention for the reduction of stressors. Especially, improving trust, helps reduce work conflict and promotes work control and decision control.

Model 2 postulates that trust can modify the effect of stressors. Generally, work stressors induce some unexpected adverse health effect, such as non-specific symptoms, job dissatisfaction, etc. These stress reactions can be invoked by a worker's cognitive perception. This means that work stressors have a direct effect on the perceived stress. Based on Model 2, trust modifies the stress effect on the perceived stress of workers. Any sub-scale of social trust has no significant effect on perceived stress in either group. Within institutional trust, trust in career development has a negative impact and trust in working rule has a positive impact on perceived stress only among Japanese workers, but there is no significant effect of

Table 3. Stepwise regression analysis of work stressors for Model 1 among Korean and Japanese workers

Characteristics	Korean workers					Japanese workers				
	Job instability	Work control	Work load	Work conflict	Decision control	Job instability	Work control	Work load	Work conflict	Decision control
Sex (male)			0.092 [‡]	0.098 [†]			0.304 [†]			
Age							0.522 [*]			0.650 [*]
Marital status (married)										
Formal educated year	-0.130 [†]									
Job tenure (yr)	0.133 [†]	0.240 [*]								-0.319 [‡]
Mental work		0.140 [*]	0.198 [*]	0.095 [†]	0.233 [*]					
Team work	0.132 [†]									
Personal contacted work										
Skilled work	-0.264 [*]	0.106 [†]	0.183 [*]		0.093 [‡]					
Contact non-member			0.094 [‡]					0.336 [†]	-0.476 [*]	
Hazardous work condition										
Supervised work		-0.179 [*]	0.108 [†]		-0.132 [†]			0.276 [‡]		
Handling hazardous materials			0.102 [†]							
General trust	-0.100 [‡]									
Caution				0.177 [*]				0.441 [*]		
Knowledge based trust			0.140 [*]							
Utility of relation				-0.099 [†]	0.097 [‡]					
Reputation		-0.076 [‡]							0.416 [*]	
Honesty										-0.218 [‡]
Trust on career development		0.096 [‡]		-0.176 [*]						
Trust on working rule		0.095 [‡]		-0.160 [*]						
Trust on employer	-0.132 [†]	0.214 [*]			0.156 [*]					
Distrust on employer				0.139 [†]	0.132 [‡]					
Trust on co-workers							0.267 [†]		0.266 [‡]	0.455 [*]
Distrust on co-workers				0.172 [*]	-0.164 [†]					
R-square	0.138	0.269	0.175	0.272	0.128		0.550	0.275	0.330	0.433
F-value	10.887 [*]	18.016 [*]	12.197 [*]	18.256 [*]	8.754 [*]		17.677 [†]	6.061 [*]	7.557 [*]	8.632 [*]

Blank cell means excluded variable because of non significant in stepwise regression analysis.

*p < 0.01.

†p < 0.05.

‡p < 0.10.

Table 4. Regression analysis of perceived stress for Model 2 among Korean and Japanese workers

Characteristicss	Korean	Japanese
Sex (male)		-0.242 [†]
Age		
Marital status (married)		
Formal educated year		0.179 [‡]
Job tenure (yr)		
Mental work		
Team work		
Personal contacted work	0.162*	
Skilled work	0.116 [†]	
Contact non-member		
Hazardous work condition		0.343*
Supervised work	0.273*	
Handling hazardous materials		
Job unstability		0.259 [†]
Work control		
Work load	0.175*	-0.300*
Group conflict	0.119 [†]	
Decision control		
Social support		
General trust		
Caution		
Knowledge based trust		
Utility of relation		
Reputation		
Honesty		
Trust on career development		-0.313*
Trust on working rule		0.279*
Trust on employer		-0.174 [†]
Distrust on employer	0.141*	0.428*
Trust on co-workers		
Distrust on co-workers		
R-square	0.259	0.727
F-value	22.441*	11.959*

Blank cell means excluded variable because of non significant in stepwise regression analysis.

*p < 0.01.

[†]p < 0.05.

[‡]p < 0.10.

institutional trust on perceived stress among Korean workers. In both groups, distrust in employer has a significant positive effect on the perceived stress. Trust in employer negatively influences the perceived stress only among Japanese workers. The effect of trust in working rule on perceived stress among Japanese workers, as interpreted by rigid working rules, can be stressful in spite of trustfulness of working rule (Table 4).

Trust can directly modify the stress reaction. Model 3 hypothesizes that trust can impact stress reactions, such as prevalence of stress symptoms and job satisfaction. Among Korean workers, stress symptom prevalence is modified by some sub-categories of trust, for example, caution, trust in career development, distrust in co-workers. But among Japanese workers, only distrust in employer significantly modified the stress reaction. In Korean workers, job satisfaction, and stress reactions, are influenced by general trust, utility in relation, trust in career development, trust in working rule and trust in employer, but among Japanese workers, caution, reputation, and trust in employer impact the job satisfaction. These differences between Korean and Japanese workers show that Korean workers were more sensitive about institutional trust, while Japanese workers had no concerns about the institutional trust or trust in co-workers, as related to stress reactions (Table 5).

Discussion

The various aspects of workers' trust, as well as the organizational culture, have effects on work related stress and stress reaction [5-10]. The effects of trust on work related stress can be interpreted using different dimensions of trust. Worker trust is affected differently by the different types of trust and stressors. Social trust has effects on the all types of work stressors. Social trust is based on societal cultural traits, and workers in a workplace cannot be free of social/cultural background. Social trust is often measured by trust in anonymous individuals. On the other hand, the trust in others is measured by the trust in employer and co-workers in his or her workplace. These two different types of trust depend on social settings and human relationships [20]. Under the same working conditions, this social trust can modify a worker's perception of the work stressors [22]. For example, work conflict can be more readily perceived by workers with low levels of social trust. When workers think that people can avoid trouble by assuming that all people have a vicious stake, he or she is likely to be in conflict with the employer and co-workers in workplace. Caution, as the negative aspect of the social trust, has an effect on work conflict among Korean workers, but it has an effect on work load Japanese workers. These differences can be induced

Table 5. Regression analysis of stress reaction for Model 3 among Korean and Japanese workers

Characteristics	Korean		Japanese	
	Symptom prevalence	Job satisfaction	Symptom prevalence	Job satisfaction
Perceived stress	0.572*	-0.177*	0.439*	
General trust		0.082 [‡]		
Caution	0.105 [†]			0.350*
Knowledge based trust				
Utility of relation		0.091 [†]		
Reputation				0.376*
Honesty				
Trust on career development	-0.091 [†]	0.197*		
Trust on working rule		0.184*		
Trust on employer		0.161*		0.276 [†]
Distrust on employer			0.255 [‡]	
Trust on co-workers				
Distrust on co-workers	0.109 [†]			
R-squar	0.420	0.269	0.331	0.353
F-value	69.014*	23.974*	12.368*	9.921*

Blank cell means excluded variable because of non significant in stepwise regression analysis.

*p<0.01.

[†]p<0.05.

[‡]p<0.10.

from different types of work settings. Korean workers tend to be very cautious in human relationships, but Japanese workers tend to be more cautious in individual tasks.

Institutional trust has a statistically significant effect on work stressors, stress reactions, and job satisfaction only among Korean workers. But among the Japanese workers, it has a significant effect only on perceived stress. These results show that Korean workers are more concerned about career development and working rule than Japanese workers. When career development and working rule are more stable, all workers are unconcerned about them. On the other hand, this means that Japanese workers have less control over the working rules and institutions of career development than do Korean workers. The causes of different effects of institutional trust on work stress should be investigated in future studies.

Trust in others in the workplace can be classified into four different categories of trust using the criteria of characteristics of others, employer and co-worker trust and distrust. The trust in others is dependent upon the human relationships in a workplace and influences work stressors, perceived stress and

stress reactions. Specifically, trust in employer has effects on work stressors such as job instability, work control and decision control among Korean workers, and in both groups, job satisfaction is modified by trust in employer. Among Japanese workers, trust in co-workers influences the work control, work conflict and decision control. Trust and distrust in co-workers have no effect on perceived stress and stress reaction, except for stress symptom prevalence among Korean workers. In summary, trust in others may be an antecedent variable and trust and distrust in employer can be a moderating variable for perceived stress and stress reaction.

This difference implies that Korean workers have more concerns about workplace relations and institutions than do Japanese workers, when different levels of social integration and social norms are used as cultural constraints. Strategically, it is important for workers to have trust in the employer and institutions for stress management. Perceived stress is affected by distrust in employer, and stress symptom prevalence is influenced by social trust in both the Korean and Japanese groups. Perceived stress is constructed in the worker's cognitive

field with their perception. The implication of this finding is that distrust in employer is correlated with perceived stress. In the work setting, it is useful to reduce the distrust in employer for stress management. Otherwise it is difficult to change the level of the social trust, because that is based on the societal foundation.

Based on the above results, trust, as well as cultural factors may play various roles in the mechanism of stress, by functioning as antecedent, mediating and moderating variables. Existing research has reported that trust can be a moderating or mediating factor of the work stress effect. Japanese and Korean workers who served as objects of this study are included as Asian workers. Based on population survey data from Sweden, men and women in the job strain category had a significant higher odds ratio of low trust compared to the relaxed reference group, when controlled for other variables [23]. Social/cultural background influences organizational culture via managerial strategies and human relationships in a workplace. Therefore, comparative studies on the differences between Western and Asian cultures will be conducted in future research.

This study has some limitations due to different socio-demographic and occupational characteristics between Japanese and Korea workers sampled in various industries. Therefore, results of this study cannot be generalized to a broader workforce. Especially, the sample size of Japanese workers was smaller than that of Korean workers. Studies with larger samples of Japanese and Korean workers will be conducted in the future to confirm the findings of this study.

In conclusion, workers' trust, as one aspect of organizational culture, affects work related stress with three different casual sequences: antecedent, moderating and mediating factors.

The improvement of workers trust can be one of the strategies employed for stress management and primary and secondary prevention of stress. Such trust can be based on the trust in employer, co-workers and the institutions of work. The results of this study cannot be generalized because of the limited number of study subjects and the level of analysis.

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