

A cross-level model of organizational commitment antecedents

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Abstract

Since 1960s, organizational commitment and its antecedents studied from a single-level view; but the study by taking multilevel approach received less attention. In this research, a conceptual cross-level model of organizational commitment antecedents proposed and tested. Data obtained from 461 faculty members of Tehran major universities. Hierarchical linear models examined using HLM6.08. Results showed that consideration has the most moderating effect and moderates seven relationships (e.g., relationship between organizational commitment and perceived management esteem). Participation in decision-making moderates six relationships (e.g., relationship between trust in management and perceived management support). Feedback moderates four relationships (e.g., relationship between organizational commitment and perceived procedural justice). Positive discipline moderates two relationships (relationship between organizational commitment and perceived management esteem and relationship between organizational commitment and trust in management).

Keywords

Cross-level model, Multi-level approach, Organizational commitment.

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Introduction

Attitudes influence behavior by turning to behavioral intentions. So awareness of employee's attitudes about the organization and the job is necessary for managers. Three organizational attitudes that have been concerned over others include job satisfaction, organizational commitment, and job involvement (Robbins, 2007). Studies show that compared to others, organizational commitment is more stable construct (Sommer *et al.*, 1996; Bateman and Strasser, 1984). Over past years, organizational commitment due to positive impact on positive outcomes such as job satisfaction, organizational citizenship behavior, Job performance, life satisfaction, and negative impact on negative outcomes such as absenteeism, turnover and delay has been interested for researchers of management, psychology and educational sciences (Davis, 1981; Lambert & Hogan, 2009; Meyer *et al.*, 1999; Somech & Bogler, 2002; Yoon & Thye, 2002). Considering the value of these Outcomes clarify the importance of promoting organizational commitment in employees. This requires identifying first, factors affect organizational commitment directly or indirectly, and second, relationship patterns of these factors together and with organizational commitment.

Researches show that employees' commitment to the organization derives from their perceptions of the employers' commitment to and support of them. It also implies that employees interpret human resource practices and the trustworthiness of management as indicative of organization's commitment to them. They reciprocate their perceptions accordingly in their own commitment to the organization (Whitener, 2001). Studies show that HRM practices have a strong impact on organizational commitment (Meyer & Smith, 2000). More importantly, results show that the extent of this effect will be determined by perceptions of personnel about, and that this effect is not necessarily direct. For example, Meyer and Smith (2000) have shown that performance evaluation, benefits, training and career development influence affective and normative commitment through procedural justice and organizational support.

However, few studies have investigated faculty member's organizational commitment. Eisinga *et al.* (2010) investigated the effect of some factors on organizational commitment of faculty members in six European universities from Belgium, Germany, Netherlands, UK, Finland, and Sweden. They considered the faculty as the organizational level. Joiner and Bakalis (2006) investigated the effect of several personal and professional factors on affective and continuous commitment in temporary teachers of Australian universities. Winter and Sarros (2002) investigated the effect of environmental factors on organizational commitment of faculty members at Australian Universities. Davis (1981) offered a model of factors affecting organizational commitment and its consequences. The population of this research is faculty members and staff of non-profit university in the United States. Remarkably, most of the existing research on organizational commitment of faculty members used the standard questionnaires of Allen and Meyer (1990) (e.g. Eisinga *et al.*, 2010; Smeenk *et al.*, 2006; Joiner and Bakalis, 2006) and questionnaires of Mowday *et al.* (1979), (e.g., Davis, 1981).

On the other hand, all registered research on organization commitment investigated this phenomenon based on conventional approach and without multilevel view. In other words, organizational commitment and its antecedents have been investigated only at micro level and not as a multilevel phenomenon at micro and macro level. Note that conventional organization theories - both in theoretical and practical level- examine phenomena merely at the micro or macro-level. These theories are unable to study the organization as a multilevel phenomenon both at the micro and macro level. Multi-level approach that is also referred to as the paradigm or theory building method rooted in the failure of conventional approaches to organizational theory building. Multi-level approach seeks to reduce or eliminate the gap between micro and macro level in researches, in response to the inability of researchers who have been trained to think macro or micro but cannot think macro and micro Simultaneously (Rezaeian & Ganjali, 2010). Multilevel approach is a useful methodological framework to formulate micro- macro relationship

between individuals and their contexts. The general concept is that individuals interact with the social contexts to which they belong, meaning that individuals are influenced by the social groups to which they belong, and that the properties of those groups are in turn influenced by the individuals who make up that group (Hox, 1995). Studies show that organizational commitment is a multilevel phenomenon (Whitener, 2001). Although levels of origin and rise of organizational commitment are both individual, but some factors affecting it are at higher levels.

Organizational commitment

Research on organizational commitment returns to the 1960s, but after the publication of Porter, Steers, Mowday, and the Boulian paper in 1974 that provide a comprehensive definition of organizational commitment [and then in 1979 that Mowday, Porter and Steers introduced a measure for it], this concept was strongly considered (McCroskey, 2007). Porter and his colleagues defined commitment as the strength of an individual's identification with and involvement in a particular organization. They believed that organizational commitment conceptually has three characteristics (1) a strong belief in and acceptance of the organization's goals and values, (2) a readiness to exert effort on behalf of the organization 3) a strong desire to remain a member of the organization (Porter *et al.*, 1974). Allen and Meyer (1990) developed the concept by providing a three-dimensional model of organizational commitment. In fact, they have attempted to provide a comprehensive model from three perspectives. They argued that although the various conceptualizations of organizational commitment have emerged, but in fact each of them reflects one of these three subjects: "affective Attachment", "obligation" and "perceived costs" that introduced by "affective commitment", "normative commitment" and "continuance commitment". A review of studies shows that among these, importance of affective commitment evaluated more than others, because it has the greatest effect on turnover and absenteeism (Lok & Crawford, 2001; Eby *et al.*, 1999; Meyer *et al.*, 1999, 1991). Meyer and Allen (1997) admitted that commitment

should conceptualize as a psychological state associated with the person feel about his/her organizational activities. So, affective commitment is the most useful form of commitment and the main measure in commitment studies (Lok *et al.*, 2007; Somech & Bogler, 2002; Meyer *et al.*, 1999; Mathieu & Zajac, 1990).

Hypotheses development and conceptual model

Perceived management support

Perceived management support or perceived organizational support is employee's overall belief that organization considers his efforts and care of his welfare and prosperity (Rhoades and Robert, 2002). Based on the norm of reciprocity, perceived management support led to a sense of duty to the organization success. This sense increases employee's emotional commitment to the organization (Fu *et al.*, 2009; Rhoades & Robert, 2002; Shore & Wayne, 1993).

Perceived esteem

Perceived esteem defined as the regulation of behavior according to the respect that one deserves to be treated generously (Chmel, 2008). Studies indicate the effectiveness of employees' perceptions of esteem on their organizational commitment. Boezeman and Ellemers (2007) showed that esteem has relationship with intention to remain in organization and normative commitment serves as a mediator in this relationship. Boezeman and Ellemers (2008) showed that perceived organizational support affect perceptions of esteem and this affect organizational commitment in turn.

Procedural justice

Procedural justice is the perception about the fairness of current procedures in decision making for compensation (Yoon & Thye, 2002). Eisinga *et al.* (2010) showed that procedural justice is a predictor of affective commitment. Meta-analysis of Meyer *et al.* (2002), showed a relatively high positive correlation between procedural justice and affective commitment. Several studies of Lambert (Lambert & Hogan, 2009; Lambert *et al.* 2008; Lambert *et*

al., 2002; Lambert, 2003) has shown that organizational justice is effective in shaping job satisfaction and organizational commitment (often affective).

Distributive justice

Distributive justice refers to the individual's perception of fairness in the amount of benefits received from organization compared with the work has done (Yoon & Thye, 2002). Allen and Meyer (1990) found a significant correlation between fairness and affective commitment. Sorensen (1985) found a positive and significant effect of distributive justice on organizational commitment.

In this research, perceived management support, perceived management esteem, perceived procedural justice, and perceived distributive justice have been defined and conceptualized as "perceived management behavior".

Trust

Trust is one of the fundamental concepts that easily understood by any person; at the same time defining and explaining it is difficult. There are many definitions of the concept that confirm this claim (Zarei Matin & Hasanzade, 2004). Whitener (2001) showed that perceived organizational support affects trust in management and it affects organizational commitment in turn. Studies indicate that overall judgment of fairness are influenced by the experience of procedural justice, distributive justice and interactional justice and this overall judgment has consequences one of them is trust (Rezayian, 2005).

Consideration of leader

Consideration of leader is defined as the degree of support, mutual trust, respect and intimacy in work atmosphere that provided by the leader. (Agarwal & Ramaswami, 1993). Lok *et al.* (2007) showed that consideration leadership affect organizational commitment. Mathieu and zajac (1990) in their meta-analysis, found a positive relationship between consideration and organizational commitment.

Feedback

Feedback influences affective commitment indirectly through role

ambiguity (Agarwal & Ramaswami, 1993). Smeenk *et al.* (2006) reported that findings indicate a significant positive relationship between communication and organizational commitment among higher educated people. Eby *et al.* (1999) showed that affective commitment is related to feedback.

Participation

Participation in decision-making is defined as “staff perceptions of their influence on organizational decisions” (Lambert & Hogan, 2009). In organizational commitment literature, the role of participation in decision-making has been studied more than any other factor and generally, studies confirm the relationship between participation in decision-making and commitment (Lambert & Hogan, 2009; Smeenk *et al.*, 2006; Winter & Sarros, 2002; Somech & Bogler, 2002; Harrison & Hubbard, 1998; Mayer & Schoorman, 1998).

Positive discipline

Positive discipline or discipline without punishment introduced in the 1970s by John Huberman and welcomed by managers (Campbell *et al.*, 1985). In positive discipline all of punitive activates such as temporary suspension, demotion and salary reduction eliminated and tried to solve the behavioral problem. Only when organization came to the conclusion that employee does not have responsibility to the organization, dismiss him (Grote, 1977). There is no study that examines the relationship between organizational commitment and positive discipline. But some experts have predicted that this approach will lead to increased satisfaction and organizational commitment (Grote, 1994; Campbell *et al.*, 1985).

Consideration leadership, feedback, positive discipline and participation in decision making have been defined and conceptualized as "manpower direct" and considered that have a positive impact on the relationship between perceived management behavior and organizational commitment. So we propose following cross level hypotheses:

1. Manpower direct moderates the relationship between Perceived management behavior and trust in management.

2. Manpower direct moderates the relationship between trust in management and organizational commitment.
3. Manpower direct moderates the relationship between Perceived management behavior and organizational commitment.

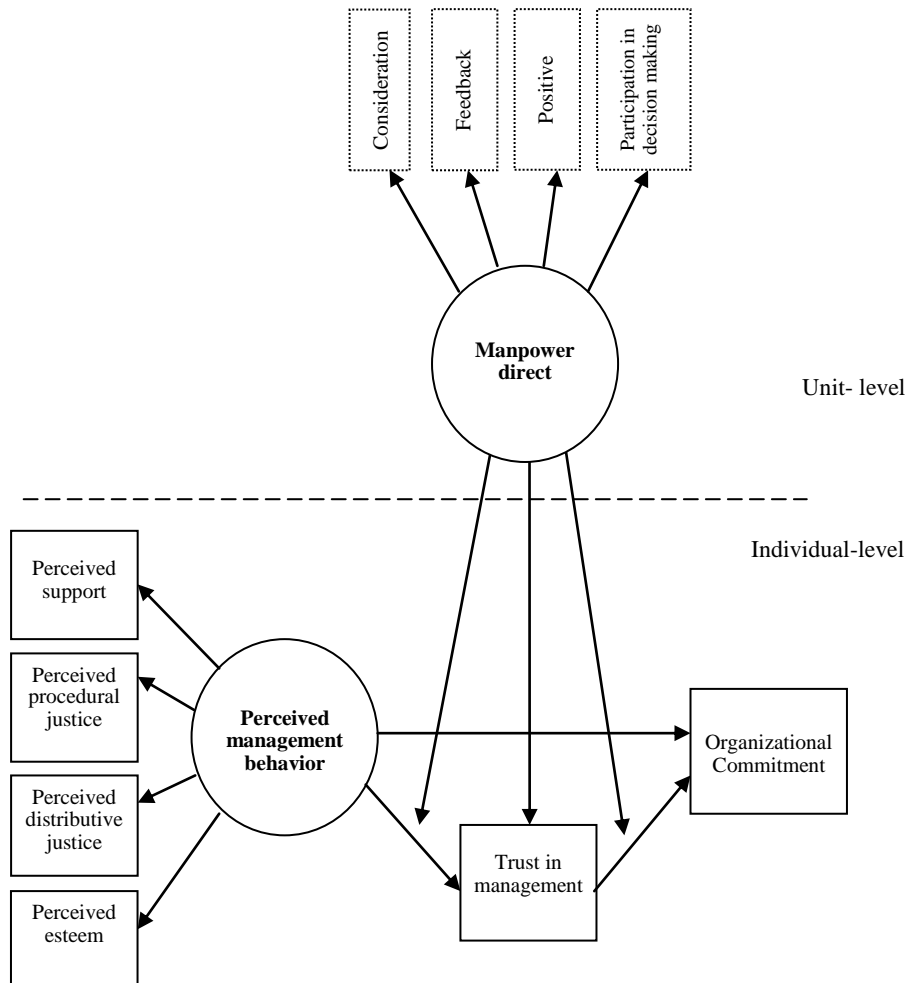


Fig. 1. Research conceptual model

Methodology

Population of this research is faculty members of 10 major public universities in Tehran. In cross-level researches, there are two levels

of analysis. In this study, Individual level is faculty member and organizational level is faculty. This selection matches with Eisinga *et al.* (2010), perspective that considered commitment to faculty as organizational commitment of faculty members. Since in cross-level research, a large sample size required, maximum number of sample proposed by Morgan with error level of 5% and confidence level of 95%, 384, is selected. Questionnaires distributed randomly and 461 completed were obtained from 27 faculties. For measuring feedback, Sims *et al.* (1976), questionnaire, participation in decision-making, Lambert and Hogan (2009), trust in management, Mack *et al.* (2001), Perceived management support, Eisenberger *et al.* (1986), Perceived distributive justice, Yoon and Thye (2002), Consideration, Stagdeed (1974) and affective commitment the questionnaire of Allen and Meyer (1990) were used. For measuring perceived procedural justice, perceived management esteem and positive discipline, researcher-made questionnaire was used. In order to evaluate the reliability of questionnaire, 50 questionnaires distributed and based on data collected, Cronbach's alpha for all variables were greater than 0.7. To evaluate the validity, two methods were used; content validity and factor validity (by confirmatory factor analysis).

Data analysis and results

Note that in this study, the effects of unit-level variable on the relationship between the independent and dependent variables at individual-level are investigated. The model is cross-level based on multi-level approach. In multilevel approach various types of models are designable, one of them is moderating cross-level model. In cross-level models, there is a hierarchical set of data; with a dependent variable at lower level and the independent variables in both existing levels (Hox, 1995). Examining multi-level hypotheses requires four conditions: individual-level variables correlation, intra-class correlation, mean difference of unit-level variables, and within-group agreement (Klein & Kozlowski, 2000; Hox, 1995; Mathieu, 1991; Tangirala & Ramanujam, 2008; Whitener, 2001; Zaccarin & Rivellini, 2002).

Individual-level variables correlation

As it can be seen in Table 1, individual-level variables have a significant positive correlation with each other.

Table 1. Individual-level variables Correlation

		distributive justice	procedural justice	Trust	support	esteem	Commitment
distributive justice	Pearson Correlation	1	0.610**	0.461**	0.643**	0.556**	0.324**
	Significance level		0.000	0.000	0.000	0.000	0.000
	Number of samples	461	461	461	461	461	461
Procedural justice	Pearson Correlation	0.610**	1	0.641**	0.662**	0.585**	0.346**
	Significance level	0.000		0.000	0.000	0.000	0.000
	Number of samples	461	461	461	461	461	461
Trust	Pearson Correlation	0.461**	0.641**	1	0.698**	0.651**	0.419**
	Significance level	0.000	0.000		0.000	0.000	0.000
	Number of samples	461	461	461	461	461	461
support	Pearson Correlation	0.643**	0.662**	0.698**	1	0.777**	0.453**
	Significance level	0.000	0.000	0.000		0.000	0.000
	Number of samples	461	461	461	461	461	461
esteem	Pearson Correlation	0.556**	0.585**	0.651**	0.777**	1	0.435**
	Significance level	0.000	0.000	0.000	0.000		0.000
	Number of samples	461	461	461	461	461	461
Commitment	Pearson Correlation	0.324**	0.346**	0.419**	0.453**	0.435**	1
	Significance level	0.000	0.000	0.000	0.000	0.000	
	Number of samples	461	461	461	461	461	461

Intra-class correlation

Intra-class correlation is a ratio between-group variance to the total variance (sum of variances between groups and within groups) of dependent variable at individual level. If the intra-class correlation coefficient is less than 0.05, there is not possibility for multilevel analysis (Klein & Kozlowski, 2000). In this study, intra-class correlation is a measure of organizational commitment variance in faculty members that arises from the difference between groups (faculties).

$$ICC_{commit} = 33.167 / (33.167 + 180.589) = 0.15$$

In this study, intra-class correlation of organizational commitment is greater than 0.05, so the multilevel analysis is possible.

Mean difference of unit-level variables

Each unit-level variable which its mean difference is not significant cannot enter in multi-level analysis. Table 2 shows the mean of positive discipline, feedback, Consideration and participation in decision-making in 27 groups (n2= 27) are significant.

Table 2. ANOVA of unit-level variables

		Sum of Squares	df	Mean Square	F	Sig
positive discipline	Between Groups	65.111	26	2.504	7.257	0.000
	Within-Group	149.773	434	0.345		
	Total	214.884	460			
feedback	Between Groups	88.728	26	3.413	4.422	0.000
	Within-Group	334.937	434	0.772		
	Total	423.665	460			
Consideration	Between Groups	70.619	26	2.716	5.159	0.000
	Within-Group	228.500	434	0.526		
	Total	299.120	460			
participation in decision-making	Between Groups	77.968	26	2.999	5.477	0.000
	Within-Group	237.626	434	0.548		
	Total	315.594	460			

Within-Group Agreement

The most widely used indicator of within-group agreement for likert scales is R_{wg} (Klein & Kozlowski, 2000).

$$r_{wg} = 1 - (S2x / \sigma2null)$$

$$\sigma2null = (A2 - 1) / 12$$

- S2x:** variance of allocated scores to variable by individual
- $\sigma2null$:** variance of neutral Distribution when there is no agreement
- A:** the number of options on Likert scale (For example in 5 item Likert A=5).

The results of within-group agreement for feedback, Consideration, participation in decision making and positive discipline are summarized in Table 3. As seen, each of four variables in this study has the suitable convergence in groups.

Table 3. Results of within-group agreement

R_{wg}	Variable
0.712	Feedback
0.753	Consideration
0.740	participation in decision making
0.809	positive discipline

Slopes-as-Outcomes model

To analyze of moderating cross-level models, using hierarchical linear modeling, slopes as outcomes model is used (Klein & Kozlowski, 2000). In slopes, as outcomes model, moderating impact of unit-level variables on the relationship between individual-level independent and dependent variables is investigated by regressing the slope of individual-level equation to unit-level variables (Klein & Kozlowski, 2000). For analysis of slopes-as-outcomes model, HLM 6.08 software is used. Regression equations are as follows:

Level-1 Model

$$Y = B_0 + B_1*(DJUSTICE) + B_2*(PJUSTICE) + B_3*(SUPPORT) + B_4*(ESTEEM) + B_5*(TRUST) + R$$

Level-2 Model

$$B_0 = G_{00} + G_{01}*(FEEDBACK) + G_{02}*(CONSIDER) + G_{03}*(PARTICIP) + G_{04}*(DISCIPLI) + U_0$$

$$B_1 = G_{10} + G_{11}*(FEEDBACK) + G_{12}*(CONSIDER) + G_{13}*(PARTICIP) + G_{14}*(DISCIPLI)$$

$$B_2 = G_{20} + G_{21}*(FEEDBACK) + G_{22}*(CONSIDER) + G_{23}*(PARTICIP) + G_{24}*(DISCIPLI)$$

$$B_3 = G_{30} + G_{31}*(FEEDBACK) + G_{32}*(CONSIDER) + G_{33}*(PARTICIP) + G_{34}*(DISCIPLI)$$

$$B_4 = G_{40} + G_{41}*(FEEDBACK) + G_{42}*(CONSIDER) + G_{43}*(PARTICIP) + G_{44}*(DISCIPLI)$$

$$B_5 = G_{50} + G_{51}*(FEEDBACK) + G_{52}*(CONSIDER) + G_{53}*(PARTICIP) + G_{54}*(DISCIPLI)$$

Results of calculation by HLM software are summarized in Table 4.

Table 4. detailed results of Slopes-as-Outcomes model (1)

Fixed effect	Coefficien	Standard error	T-ratio	Approx.d.f.	P-value
For INTRCPT1, B0					
INTRCPT2, G00	3.123277	0.641257	4.871	22	0.000
FEEDBACK, G01	0.075743	0.246654	0.307	22	0.762
CONSIDER, G02	0.058728	0.289678	0.203	22	0.841
PARTICIP, G03	0.288448	0.318125	0.907	22	0.375
DISCIPLI, G04	-0.563814	0.354361	-1.591	22	0.126
For DJUSTICE slope, B1					
INTRCPT2, G10	0.383826	0.145781	2.633	436	0.009
FEEDBACK, G11	0.059125	0.053186	1.112	436	0.267
CONSIDER, G12	0.006987	0.036195	0.193	436	0.047
PARTICIP, G13	0.121009	0.065824	1.838	436	0.016
DISCIPLI, G14	-0.180314	0.073733	-2.446	436	0.115
For PJUSTICE slope, B2					
INTRCPT2, G20	-0.349473	0.201633	-1.733	436	0.083
FEEDBACK, G21	0.092781	0.048723	1.904	436	0.057
CONSIDER, G22	0.001458	0.059372	0.025	436	0.981
PARTICIP, G23	-0.051141	0.087880	-0.582	436	0.561
DISCIPLI, G24	0.071537	0.152488	0.469	436	0.639
For SUPPORT slope, B3					
INTRCPT2, G30	0.674258	0.224553	3.003	436	0.003
FEEDBACK, G31	0.055166	0.085919	0.642	436	0.021
CONSIDER, G32	0.007582	0.080722	0.094	436	0.926
PARTICIP, G33	0.101335	0.104748	0.967	436	0.044
DISCIPLI, G34	-0.065783	0.110286	-0.596	436	0.551
For ESTEEM slope, B4					
INTRCPT2, G40	-0.370690	0.219422	-1.689	436	0.091
FEEDBACK, G41	-0.069905	0.113627	-0.615	436	0.538
CONSIDER, G42	0.015436	0.126108	0.122	436	0.043
PARTICIP, G43	0.059549	0.109885	0.542	436	0.008
DISCIPLI, G44	0.311390	0.103686	3.003	436	0.023
For TRUST slope, B5					
INTRCPT2, G50	0.197515	0.120658	1.637	436	0.102
FEEDBACK, G51	-0.005504	0.040725	-0.135	436	0.893
CONSIDER, G52	0.019606	0.066815	0.293	436	0.029
PARTICIP, G53	-0.153270	0.062737	-2.443	436	0.097
DISCIPLI, G54	0.219706	0.063591	3.455	436	0.001

Coefficients G represent the significance of moderating effect of manpower direct (unit-level variables) on the relationship between Perceived management behavior and trust in management with organizational commitment (individual-level variables).

And also:

Level-1 Model

$$Y = B_0 + B_1*(DJUSTICE) + B_2*(PJUSTICE) + B_3*(SUPPORT) + B_4*(ESTEEM) + R$$

Level-2 Model

$$B0 = G00 + G01*(FEEDBACK) + G02*(CONSIDER) + G03*(PARTICIP) + G04*(DISCIPLI) + U0$$

$$B1 = G10 + G11*(FEEDBACK) + G12*(CONSIDER) + G13*(PARTICIP) + G14*(DISCIPLI)$$

$$B2 = G20 + G21*(FEEDBACK) + G22*(CONSIDER) + G23*(PARTICIP) + G24*(DISCIPLI)$$

$$B3 = G30 + G31*(FEEDBACK) + G32*(CONSIDER) + G33*(PARTICIP) + G34*(DISCIPLI)$$

$$B4 = G40 + G41*(FEEDBACK) + G42*(CONSIDER) + G43*(PARTICIP) + G44*(DISCIPLI)$$

Results of calculation by HLM software are summarized in Table 5.

Table 5. Detailed results of Slopes-as-Outcomes model (2)

Fixed effect	Coefficien	Standard error	T-ratio	Approx.d.f.	P-value
For INTRCPT1, B0					
INTRCPT2, G00	-0.772373	0.394969	-1.956	22	0.063
FEEDBACK, G01	-0.121449	0.142659	-0.851	22	0.404
CONSIDER, G02	0.159844	0.184028	0.869	22	0.395
PARTICIP, G03	0.376677	0.166730	2.259	22	0.034
DISCIPLI, G04	0.435892	0.202411	2.153	22	0.042
For DJUSTICE slope, B1					
INTRCPT2, G10	-0.141502	0.145971	-0.969	436	0.333
FEEDBACK, G11	0.058662	0.044442	1.320	436	0.088
CONSIDER, G12	0.084249	0.052772	1.596	436	0.011
PARTICIP, G13	0.008790	0.054804	0.160	436	0.007
DISCIPLI, G14	0.063423	0.071658	0.885	436	0.377
For PJUSTICE slope, B2					
INTRCPT2, G20	0.079149	0.188526	0.420	436	0.674
FEEDBACK, G21	-0.072674	0.066673	-1.090	436	0.277
CONSIDER, G22	0.101753	0.059955	1.697	436	0.090
PARTICIP, G23	0.249607	0.086850	2.874	436	0.005
DISCIPLI, G24	-0.018406	0.124101	-0.148	436	0.883
For SUPPORT slope, B3					
INTRCPT2, G30	1.038095	0.239703	4.331	436	0.000
FEEDBACK, G31	0.023402	0.058949	0.397	436	0.691
CONSIDER, G32	0.024727	0.067183	0.368	436	0.013
PARTICIP, G33	0.162204	0.089481	1.813	436	0.070
DISCIPLI, G34	-0.096146	0.129438	-0.743	436	0.458
For ESTEEM slope, B4					
INTRCPT2, G40	0.282552	0.178145	1.586	436	0.113
FEEDBACK, G41	0.000528	0.092117	0.006	436	0.015
CONSIDER, G42	0.177393	0.084613	2.097	436	0.036
PARTICIP, G43	-0.142363	0.096954	-1.468	436	0.143
DISCIPLI, G44	0.051307	0.081227	0.632	436	0.528

Coefficients G represent the significance of moderating effect of manpower direct (unit-level variables) on the relationship between Perceived management behavior and trust in management (individual-level variables).

Table 6. Research results

Hypothesis	Results
Consideration moderates the relationship between perceived management support and organizational commitment.	rejected
Consideration moderates the relationship between Perceived management esteem and organizational commitment.	Approved
Consideration moderates the relationship between Perceived procedural justice and organizational commitment.	rejected
Consideration moderates the relationship between Perceived distributive justice and organizational commitment.	Approved
Participation moderates the relationship between perceived management support and organizational commitment	Approved
Participation moderates the relationship between Perceived management esteem and organizational commitment	Approved
Participation moderates the relationship between Perceived procedural justice and organizational commitment	rejected
Participation moderates the relationship between Perceived distributive justice and organizational commitment	Approved
Feedback moderates the relationship between perceived management support and organizational commitment	Approved
Feedback moderates the relationship between Perceived management esteem and organizational commitment	rejected
Feedback moderates the relationship between Perceived procedural justice and organizational commitment	Approved
Feedback moderates the relationship between Perceived distributive justice and organizational commitment	rejected
Positive discipline moderates the relationship between perceived management support and organizational commitment	rejected
Positive discipline moderates the relationship between Perceived management esteem and organizational commitment	Approved
Positive discipline moderates the relationship between Perceived procedural justice and organizational commitment	rejected
Positive discipline moderates the relationship between Perceived distributive justice and organizational commitment	rejected
Consideration moderates the relationship between trust in management and organizational commitment	Approved

Continue Table 6. Research results

Hypothesis	Results
Participation in decision-making moderates the relationship between trust in management and organizational commitment.	rejected
Feedback moderates the relationship between trust in management and organizational commitment	rejected
Positive discipline moderates the relationship between trust in management and organizational commitment	Approved
Consideration moderates the relationship between trust in management and perceived management support.	Approved
Consideration moderates the relationship between trust in management and Perceived management esteem.	Approved
Consideration moderates the relationship between trust in management and Perceived procedural justice.	Approved
Consideration moderates the relationship between trust in management and Perceived distributive justice.	Approved
Participation moderates the relationship between trust in management and perceived management support.	Approved
Participation moderates the relationship between trust in management and Perceived management esteem.	rejected
Participation in decision-making moderates the relationship between trust in management and Perceived procedural justice.	Approved
Participation in decision-making moderates the relationship between trust in management and Perceived distributive justice.	Approved
Feedback moderates the relationship between perceived management support and trust in management.	rejected
Feedback moderates the relationship between Perceived management esteem and trust in management.	Approved
Feedback moderates the relationship between Perceived procedural justice and trust in management.	rejected
Feedback moderates the relationship between Perceived distributive justice and trust in management.	Approved
Positive discipline moderates the relationship between perceived management support and trust in management.	rejected
Positive discipline moderates the relationship between Perceived management esteem and trust in management.	rejected
Positive discipline moderates the relationship between Perceived procedural justice and trust in management.	rejected
Positive discipline moderates the relationship between Perceived distributive justice and trust in management.	rejected

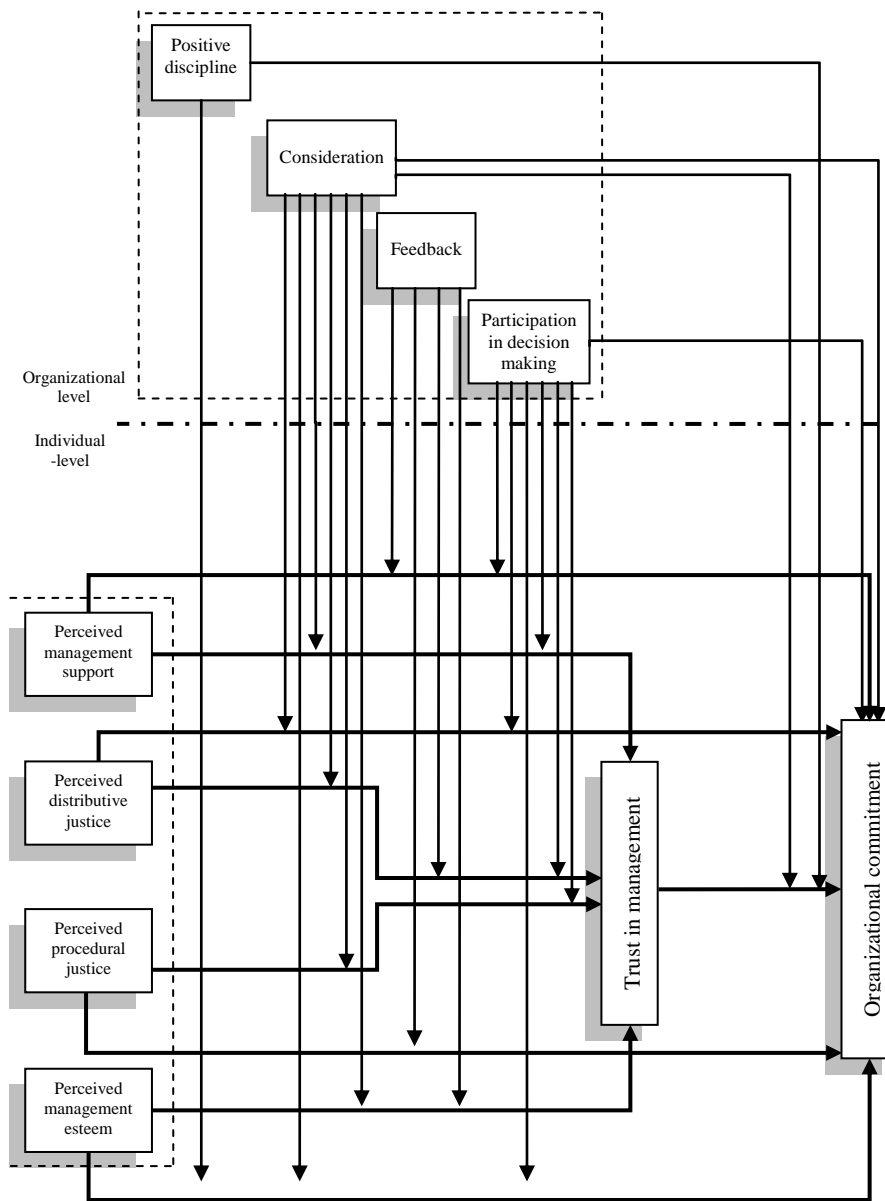


Fig. 2. Final model of research

Discussion

Given the importance and impact of universities in society development and shortage of researches on Knowledge-based human resources- especially faculty members- organizational commitment,

this research pursues developing a model of organizational commitment antecedents for this group. In this study we take a multilevel approach because human resource practices and organizational commitment exist at different levels of analysis, organizational and individual respectively. Correlation results indicate there are positive significant relationships between individual level variables. These results indicate that employees' trust and commitment are stronger when they perceive that the organization is committed to and supportive of them. Findings suggest that universities consider behavioral skills as an important criterion in selecting and appointing academic administrators, design and implement behavioral skills training programs for managers, identify expectations of faculty members that affect their perceived support and finally, provide fair working conditions for faculty members. Moreover results indicate that the effect of perceived procedural justice -whether on trust in management or organizational commitment- is stronger than perception of distributive justice. This means that fairness of compensation procedures lead to strengthening affective attachment of faculty members to their faculties more than the fairness of received services. These findings should be considered by administrators, especially in designing compensation systems and offering opportunities to faculty members. Here emphasizing on the importance of "perception of justice" seems necessary. No matter manager think that systems are designed fairly, it is important that employees think such. Since one of the main causes of injustice perception is ambiguity we propose that university administrators continually provide clear information to faculty members.

Results of slopes-as-outcomes model are the innovation of this study and there is not much precedent in the literature to compare with. According to these results some cross-level hypotheses approved and some rejected. As seen, consideration and participation in decision-making have more cross level effects compared with two others (feedback and positive discipline). Based on the results of interviews and focus group sessions with faculty members, researchers analysis is that faculty members think feedback and

discipline mechanisms are less under control of faculties and further resulting from higher authorities (university level managers) and therefore their judgment with respect to these two variables have low relationship with their organizational commitment, trust in management and perceived management behavior.

Cross level results indicate that a variable may not have a direct influence, or even indirect through mediating one, on other variables but can influence the relationship between them. So we propose to researchers that in exploring the effects of variables do not suffice to direct or indirect effects by a single level view and do not judge about hypotheses disapproval decisively. In fact they should consider upper level situation of variables and their moderator effects.

Overall, results of cross level analyses emphasize on the importance of consideration style of faculty managers, participation in decision-making, providing feedback by faculty to members and avoiding punitive disciplinary style and applying a positive one. In other words, a collaborative, positive, sincere and empathetic climate in faculty, intensify the relationship between faculty members perception of enjoying support, esteem, justice and their trust in managers as well as their organizational commitment. So, we recommend that leadership skills training program develop in universities, pay attention to participatory patterns when developing decision making systems, define detailed and clear feedback mechanisms in faculties and emphasize less on stringent and punitive regulations and more on interaction and cooperation with offending members.

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