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THE EFFECT OF TEAM COHESION ON PEER JUSTICE: A TEAM-LEVEL ANALYSIS

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Abstract

This study was conducted to examine the relationship between team cohesion and peer justice (procedural, interpersonal, informational) and to test whether female team leadership and team task type had moderating effect on the relationship between team cohesion and peer justice. The design of research was based upon survey data obtained from questionnaires distributed to 415 team member in 66 service and production teams in Turkey. The individual responses of team cohesion and peer justice were aggregated to the team level since the theoretical level of the study was team. Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to test hypotheses in the model. As predicted, the findings indicated that team cohesion was positively associated with peer procedural justice, peer interpersonal justice and peer informational justice but neither female team leadership nor team task type had moderating effect on the relationship between team cohesion and all dimensions of peer justice.

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Keywords: Team cohesion, female team leadership, peer justice, team type, PLS-SEM.



1. Introduction

In the changing conditions of economy and technology in contemporary organizations, teams become crucial structures more than ever. Since it is important to determine effective strategies for the team-based organizations, team-related variables should be understood well (Gundlach, Zivnuska & Stoner, 2006). One of the important team-related variables is peer justice. It is crucial for the organizations to manage perceptions of justice for the team success. Recently, teams have been started to be considered as a social context where perceptions of justice are built (Roberson, 2006). Research indicate that justice perceptions of team members can affect important team behaviors and outcomes such as team task performance, intention to stay in the team, as well as attitudes and feelings of members (Colquitt, Noe, & Jackson, 2002; Cropanzano, Li, & Benson, 2011). Peers are an important part of work environment and they shape how the environment feels and behaves. Therefore, the peers determine the organizational behavior (Schneider, 1987). One such instance is new employees' feelings and attitudes. A new attended member naturally has expectations toward the organization or team at first and then he/she changes her/his perceptions considering the social interaction with the peers (Schneider & Reichers, 1983).

Cohesion has been considered as a strong predictor of team behavior and attitudes by scholars from social psychology (e.g., Bettenhausen, 1991; Goodman, Ravlin, & Schminke 1987; Harrison, 1993). Team members' perceptions of justice develop mostly based on their immediate work group and work environment. Hence, in the team context, team cohesion enhances the importance of justice perceptions (Colquitt & Jackson, 2006).

First empirical study on peer justice was conducted by Cropanzano et al., (2011). The researchers focused on two dimensions of peer justice: peer procedural justice and peer interpersonal justice in their study, also they suggested to research on peer informational justice. Therefore, In the present study, besides peer procedural justice and peer interpersonal justice and peer informational justice will be included.

In leadership context, female advantage has caught attention both of scholars (e.g., Eagly, 2005; Eagly & Carli, 2003; Eagly & Wood, 2012; Rosener, 1990; Vecchio, 2003) and business press (e.g., Conlin, 2003; Heffernan, 2000). According to Eagly and Carli (2003) under contemporary conditions, females have more effective leadership style than male leaders. Female leadership thought to be advantageous because females prefer leadership style based on social interaction such as including subordinates in communication, participation, power sharing (Rosener, 1990), decision making cooperatively (Bart & McQueen, 2013). Therefore, the current study is designed to explore the moderating effect of female leadership on the relationship between team cohesion and peer justice.

Since team members of the same team are more likely to interact with each other than the other team members of different teams, they are expected to generate different climates and procedures than the others and their shared perceptions will be unique. Hence, there may be different climates throughout the same organization due to team types (Schneider & Reichers, 1983). In this context, the moderating effect of team type (production vs. service) on the relationship between team cohesion and peer justice will be examined in this study.

2. Literature Review and Theoretical Framework

2.1. Team Cohesion

Cohesion derived from 'cohaesus' in Latin, means 'to cleave or stick together'. In social psychology, it describes the processes that keep team members together (Dion, 2000). Research has shown that team cohesion correlates with other important team processes and outcomes such as team performance (e.g., Gully, Divine & Whitney, 1995; Keller, 1986; Mullen & Copper, 1994), absenteeism (e.g., Keller, 1983) and well-being (e.g. Bliese & Halverson, 1996).

In fact, team cohesion is a concept related to commitment. However, cohesion reflects a work team's characteristic as a whole, whereas commitment reflects feelings of attachment of an individual to the team (Bettenhausen, 1991). Team cohesion refers to attraction among team members (Organ & Hamner, 1982), willingness to work harder together to achieve tasks (Harrison, 1993), strong interpersonal bonds between team members (Cook, Hunsaker & Coffey, 1997), and motivation to stay as part of the team (Robins & Judge, 2010).

Emotional support, helping behavior, positive feedback are provided by team members in cohesive teams more than noncohesive ones (Forsyth, 2001). So, friendly and supportive work environment which is a part of cohesive work teams is likely to develop interpersonal attachments (Andrews, Kacmar, Blakely & Bucklew, 2008). However, the social identity analysis suggests that team cohesion is not only interpersonal liking among team members but also behavioral and attitudinal consensus (Hogg, 2001).

2.2. Peer Justice

Peer justice conceptualized as a team-level variable, was obtained from the literature on social psychology related to team work (Ambrose & Schminke, 2009; Cropanzano et al., 2011). Peer justice refers to mutual fairness perceptions arising from team members' treat one another without an authority in the same team (Li, Cropanzano, & Bagger, 2013). Peer interpersonal justice is involved with the quality of interpersonal treatment and defined as the extent to which team members treat each other with respect and dignity (Cropanzano et al. 2011). When interaction of team members is in a polite and respectful way, perceptions of peer interpersonal justice will be higher within the team (Li et al., 2013). Peer informational justice is mostly involved with good communication among team members and it has an effective role in creating a strong climate in teams (Martínez-Tur, Moliner, Ramos, Luque, & Gracia, 2014). This dimension refers to whether information is communicated in a timely manner and accurately (Cropanzano et al. 2011).

Cropanzano et al. (2011, p. 571) define peer procedural justice as "the extent to which unit members use fair procedures in the decision-making process". According to Thibaut and Walker (1975), when employees voice their opinion in the conditions that affect them, they perceive the processes as fair. When team members try to fulfill processes by Leventhal's (1976) criteria such as opportunity to express one's opinion, consistency and accuracy in decision making process, peer procedural justice perceptions will be high in the team. In contrast, when peer procedural justice perceptions are low, it indicates that some of the team members are being kept out of the decision making process or there are no consistent principles to follow in the team (Li et al., 2013). It has been known by organizational justice researchers that when an outcome is unfair, individual level procedural justice has a greater affect (Li & Cropanzano, 2009). When individuals think that decision making process is fair, they tend to accept a possible negative consequence

of a situation that concerns of them (Burke & Leben, 2007). In other words, individuals are more interested in the processes when the consequences are not as they expected. Team level of analysis research explains how team members respond to negative consequence of a situation even if they do not personally experience (Li & Cropanzano, 2009).

2.3. Team Cohesion and Peer Justice

Team cohesion was found that it was linked to increased morale level (Budman, Soldz, Demby, Davis, & Merry, 1993). Team characteristics such as cohesion, team size and demographic features affect the social interactions' quality among team members and in turn the social interactions affect team members' justice perceptions (Colquitt et al., 2002; Naumann & Bennett, 2000). High level of team cohesion leads to shared justice perception since team members of cohesive groups have strong feelings of attachment to their team mates (Naumann & Bennett, 2000).

Higher level of team cohesion indicates that strong interpersonal relationships in the team and increases trust, affective attraction to the team among the team members (O'Reilly, Caldwell & Barnett, 1989). As a result, team cohesion can facilitate greater agreement about team processes and interaction norms. Hence, misunderstanding and misinterpretations that can lead to cognitive disagreements among team members may be reduced (Ensley, Pearson, & Amason, 2002). This leads to higher level of peer interpersonal justice. Similarly, team members are more prone to accept team norms, team tasks and decisions (Forsyth, 2001) and they have high level of agreement within team (Shaw, 1981) in cohesive teams. High level of team cohesion should be associated with higher level of peer procedural justice.

Additionally, cohesion makes the teams communicate better (Catwright & Zander, 1968), which is a prerequisite of informational peer justice and hence, good communication among team members should provide higher level perceptions of peer informational justice.

2.4. Moderating Effect of Female Team Leadership

Female leaders tend to be more democratic, participative, less directive and also more likely to develop relational authenticity, as compared with male leaders who tend to be directive and autocratic (Eagly, 2005). According to social role theory, females are thought to display communal behaviors such as helping, caring, being courteous and emotionally expressive whereas males are thought to display agentic behaviors such as controlling, being assertive, and competitive (Eagly & Wood, 2012). According to Gardner, Shields, Bredemeir & Bostrom (1996), female leadership related concepts such as social support, positive feedback and democratic behavior style are positively associated with higher level of team cohesion and team cohesion is negatively related to autocratic behavior which is one of the characteristics of male leaders. Pease & Kozub (1994) found that higher level of team cohesion was associated with leader's democratic behavior. Post (2015) suggests that female leaders have more relational than male leaders and relational self-construal of leaders will build positive social interactions with the members of team. In turn, the quality of the social interactions will positively affect the attitudes, perceptions, satisfactions of team members and may enhance team cohesion.

Women are much more interdependent or relational than men. Interdependent individuals tend to maintain connectedness with the self and the others in their relationships and to harmonize with the individuals they are connected to (Markus & Kitayama, 1991). Consequently, females develop an ability

to understand others and adopt her behaviors to assist the needs of others in their important relationships (Jordan & Surrey, 1986). Hence, to assist the needs of others forms moral judgments (Lyons, 1983). Female leaders may have lesser tolerance for rule-breaking than male leaders as they are more sensitive to business ethics (Eagly, 2005). Female managers are more likely to focus on procedural subjects such as the quality of interactions and information sharing in comparison to male managers (Schminke, Ambrose & Miles, 2003). Additionally, Bart and McQueen (2013) found that since female managers had significantly higher 'Complex Moral Reasoning' ability compared to male managers, they made consistently ethical decisions. Additionally, ethical quality of team leader may be reflected in team members through 'trickle-down' effect (Ruiz, Ruiz & Martinez, 2011). According to trickle-down theory, a leader describes her/his role clearly to show the team members what is expected from them. In keeping with this logic, female leaders may strengthen the team cohesion- peer justice relationship.

2.5. Moderating Effect of Team Type

Sundstom (1999) categorizes work teams as action/performing, project, service, production parallel, and management. Devine (2002) classified team types into 2 categories as physical work teams (e.g., production and service) and intellectual teams (e.g., design, executive). Physical task types are related to physical or psychomotor activities such as mechanical assembly and motor coordination, whereas intellectual task types are related to cognitive activities such as decision making and planning. Physical teams produce tangible products with the help of existing information or knowledge. On the other hand, intellectual work teams produce new knowledge or information.

According to social cognitive research, since relationships of peers are more visible due to interaction and proximity in highly interdependent task (e.g., production teams) it is possible to be different perceptions of justice among employees (Ang, Van Dyne, & Begley, 2003). However, when team cohesion is high in teams which tasks require high interaction among team members, working together closely increases attraction (e.g., cohesive teams) among team members and this can effect team members' perceptions positively (Miles, 2000). Hence, team type may strengthen the relationship between team cohesion and peer interpersonal justice.

For future interaction, to maintain positive relationships are more important for production teams compared with service teams (Bell, 2007). In keeping with this given information, positive relationship between team cohesion and peer justice will be stronger in production teams than in service teams since.

H1: Team cohesion is positively associated with (a) peer procedural justice, (b) peer interpersonal justice, (c) peer informational justice.

H2: Female team leadership will moderate the relationship between (a) team cohesion and peer procedural justice, (b) team cohesion and peer interpersonal justice, (c) team cohesion and peer interpersonal justice. .

H3: Team type will moderate the relationship between (a) team cohesion and peer procedural justice, (b) team cohesion and peer interpersonal justice, (c) team cohesion and peer interpersonal justice.

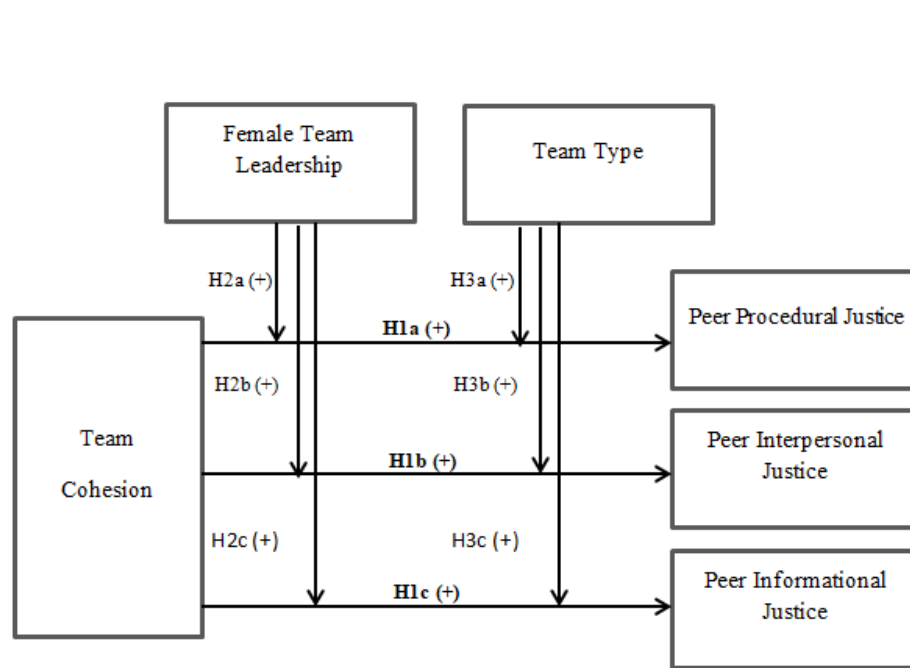


Figure 01. Hypothesized Model

3. Research Method

3.1. Sample and Data Collection

Data obtained from 415 team members working in 66 production and service teams in Turkey, was analyzed through the Smart-PLS (v. 3.2.7) and SPSS statistical packet program. The sample comprised of 31 production teams and 35 service teams. 137 female and 278 male team members participated in the study. Leader sample comprised of 23 female and 43 male leaders and all the participants have at least bachelor's degree.

3.2. Measures and Data Analyses

To measure peer procedural justice, 5-item scale developed by Li and Cropanzano (2009) was used. An example item is "The way my teammates make decisions is free from personal bias". Peer interpersonal justice was measured with 4 items developed by Li and Cropanzano (2009). A sample item is "we debate the issues that affect us". Finally peer informational justice was assessed with 5 items developed by Li and Cropanzano (2009). A sample item is "In general, we thoroughly explain the work-unit procedures we use to each other". Team cohesion was measured with a 10-item scale developed by Hoegl and Gemuenden, (2001). An example item is "Members of our team feel proud to be part of the team". Team members responded to each item with a 5-points Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Leaders were asked to report their genders. Leader gender was a dummy variable with the value 1 for the teams which have female leaders and 0 otherwise. Team type was also dummy variable with the value 1 for production teams and 0 for service teams.

Individual responses should be aggregated to team level except for leader gender and team type. Sufficient within-group agreement is the pre-requisite to aggregate the individual responses in likert scale to the team-level (James, Demaree & Wolf, 1984). Therefore, to evaluate the within group agreement,

within-group interrater agreement index $r_{wg(j)}$, ICC (1) ve ICC (2) were calculated. Threshold value for sufficient within-team agreement is .70 (LeBreton & Senter, 2008). The mean $r_{wg(j)}$ values for peer procedural justice, peer interpersonal justice and peer informational justice are .82, .85 and .86 respectively and the mean $r_{wg(j)}$ value for team cohesion is .84. Since all the mean $r_{wg(j)}$ values are higher than .70 for all the variables, there is enough within-group agreement for the aggregation.

According to Cropanzano et al., (2011), it is traditionally considered that ICC (1) values above .12 are acceptable values. ICC (2) values above .47 are recommended by Schneider, White and Paul, (1998). The ICC (1) and ICC (2) values were as follows: peer procedural justice: .13 and .48 respectively ($F=1.93$, $p<.000$), peer interpersonal justice: .17 and .57 respectively ($F=2.31$, $P<.000$), peer informational justice: .15 and .53 respectively ($F=2.12$, $p<.000$). The ICC (1) and ICC (2) values for team cohesion are .17 and .56 respectively ($F=2.27$, $p<0.000$). Besides the strong $r_{wg(j)}$ values, the acceptable ICC (1) and ICC (2) values, significant F test results allowed to aggregation of all the measures to the team level.

4. Findings

The means, standard deviations, correlations among team level variables and results of Fornell & Larcker criterion analysis are presented in the table 1.

Table 01. Means, standard deviations, correlations among team level variables and results of Fornell & Larcker Criterion Analysis

Variables	Peer Informational Justice	Peer Interpersonal Justice	Peer Procedural Justice	Team Cohesion	Leader Gender (1=Female)	Team Type (1=Production)
Peer Informational Justice	(0.889)					
Peer Interpersonal Justice	0.829**	(0.906)				
Peer Procedural Justice	0.715**	0.702**	(0.856)			
Team Cohesion	0.781**	0.651**	0.763**	(0.831)		
Leader Gender (1=Female)	0.469**	0.513**	0.696**	0.492**	1	
Team Type (1=Production)	-0.099	-0.099	-0.184	-0.118	-0.051	1
Mean	4.09	4.23	3.96	3.94	0.34	0.46
Standard Deviation	0.42	0.45	0.41	0.37	0.48	0.50

Note: N=66. Leader gender was coded as 0=male and 1=female. Team type was coded as 0=service and 1=production. ** Correlation is significant at the 0.01 level (two-tailed)
 The square root of AVE values is shown on the diagonal.

To evaluate the model's internal consistency reliability, composite reliability (CR) is used rather than Cronbach's which is not suitable for PLS-SEM. In the present study, the CR values for the constructs team cohesion, peer procedural justice, peer interpersonal justice and peer informational justice were .957, .932, .948 and .950 respectively, well above the threshold value of .70 (Hair, Hult, Ringle & Sarstedt, 2017). Since leader gender and team task type were dummy variables, their values were 1. To check the

model's ability to explain the item's variance, average variance extracted (AVE) was evaluated. The AVE values for the constructs team cohesion, peer procedural justice, peer interpersonal justice and peer informational justice were .691, .734, .820 and .791 respectively. It is seen that all the values are above the threshold level of .50 (Bagozzi & Yi, 1988). The results are shown in the table 2.

In PLS-SEM, to evaluate discriminant validity Fornell-Larcker criterion (1981) is used. The square root of AVE values should be greater than the latent variables' correlations. As it is seen in the table 1, the findings indicate that discriminant validity is met for the present study.

Table 02. Factor Loadings, Item Reliability, Composite Reliability (CR) and Extracted Average Variance (AVE)

Variables	Items	Outer Loadings	Item Reliability (Loadings) ²	CR	AVE
Team Cohesion	Cohesion1	0.867	0.751	0.957	0.691
	Cohesion2	0.793	0.628		
	Cohesion3	0.853	0.727		
	Cohesion4	0.809	0.654		
	Cohesion5	0.857	0.724		
	Cohesion6	0.776	0.602		
	Cohesion7	0.708	0.501		
	Cohesion8	0.863	0.744		
	Cohesion9	0.868	0.753		
	Cohesion10	0.899	0.805		
Peer Procedural Justice	ppj1	0.844	0.712	0.932	0.734
	ppj2	0.894	0.799		
	ppj3	0.862	0.743		
	ppj4	0.860	0.739		
	ppj5	0.820	0.672		
Peer Interpersonal Justice	Pij1	0.793	0.628	0.948	0.820
	Pij2	0.935	0.874		
	Pij3	0.944	0.891		
	Pij4	0.943	0.889		
Peer Informational Justice	Pinfj1	0.888	0.788	0.950	0.791
	Pinfj2	0.831	0.690		
	Pinfj3	0.917	0.840		
	Pinfj4	0.912	0.831		
	Pinfj5	0.895	0.801		

H1a hypothesis proposed that, team cohesion is positively associated with peer procedural justice. The findings shown in the table 3 indicate that team cohesion is positively associated with peer procedural justice ($\beta = .781$; $p = .000$). Thus, H1 Hypothesis is supported. H1b hypothesis predicted that, team cohesion is positively associated with peer interpersonal justice. The results show that team cohesion is positively associated with peer interpersonal justice ($\beta = .651$; $p = .000$). Thus, H1b hypothesis is supported. H1c hypothesis predicted that, team cohesion is positively associated with peer informational justice. The results demonstrate that team cohesion is positively associated with peer interpersonal justice ($\beta = .763$; $p = .000$). Hence, H1c hypothesis is supported.

The results of coefficient of determination (R^2) indicate that team cohesion explains 61 % of the variance of peer procedural justice, 42.3 % of the variance of peer procedural justice, and 58.3 % of the variance of peer procedural justice. Predictive relevance (Q^2) value is larger than zero, hence it can be said that the model proves good predictive relevance (Chin, 1998). The results for R^2 and Q^2 are shown in table 3.

Table 03. Results on Significance testing of Hypothesis

Hypotheses	Path	β Path Coefficient	R2	Q2	t Value	p Value	Results
H1a	Team Cohesion - > Peer Procedural Justice	0.781	0.610	0.435	13.232	0.000	Supported
H1b	Team Cohesion - > Peer Interpersonal Justice	0.651	0.423	0.314	9.571	0.000	Supported
H1c	Team Cohesion - > Peer Informational Justice	0.763	0.583	0.395	19.023	0.000	Supported

Note: Q² (1-SSE/SSO value) is tested by blindfolding procedure in SmartPLS.

Additionally, the moderating role of female team leadership and team task type were examined in this study. To test the moderating effect, the multi-group analysis (PLS-MGA) was used to explore whether there are any categorical moderating effects of leader gender and team type. The analysis allows comparing path coefficients across two groups (female leader vs. male leader and production vs. service) of leader gender and team type data in PLS-SEM (Keil et al., 2000). H2 hypothesis predicted that, female team leadership will moderate the relationship between (H2a) team cohesion and peer procedural justice, (H2b) team cohesion and peer interpersonal justice and (H2c) team cohesion and peer informational justice. The findings shown in table 4 indicate that path coefficients of female and male leaders do not differ significantly (For H2a, $\beta_1 - \beta_2 = .140$; $p = .386$, for H2b, $\beta_1 - \beta_2 = .031$; $p = .846$ and for H2c, $\beta_1 - \beta_2 = .262$; $p = .172$). Therefore, female team leadership has no moderating effect on the relationship between (H2a) team cohesion and peer procedural justice, (H2b) team cohesion and peer interpersonal justice, (H2c) team cohesion and peer informational justice and H2 hypothesis is rejected.

H3a hypothesis predicted that, team task type will moderate the relationship between team cohesion and peer procedural justice. The results shows that path coefficients of production and service teams do not differ significantly (For H3a, $\beta_1 - \beta_2 = .021$; $p = .837$, for H3b $\beta_1 - \beta_2 = .151$; $p = .298$, for H3c, $\beta_1 - \beta_2 = .048$; $p = .553$). Hence, team type has no moderating effect on the relationship between (H3a) team cohesion and peer procedural justice, (H3b) team cohesion and peer interpersonal justice, (H3c) team cohesion and peer informational and H3 hypothesis is rejected.

Table 04. Results of Moderation Analysis

Hyp.	Path	Group 1: Female		Group 2: Male		Female Leader vs. Male Leader			Results
		Path Coef. (1)	SE(1)	Path Coef. (2)	SE (2)	Path Coef.(1)-Path Coef. (2)	T Value	P Value	
H2a	TC->PPJ	0.809	0.055	0.669	0.114	0.140	0.873	0.386	Rejected
H2b	TC->PIJ	0.579	0.096	0.547	0.107	0.031	0.195	0.846	Rejected
H2c	TC->PINFJ	0.519	0.248	0.781	0.052	0.262	1.380	0.172	Rejected
N=		23		43					
		Group 1: Production		Group 2: Service		Production vs. Service			
H3a	TC->PPJ	0.781	0.083	0.760	0.062	0.021	0.207	0.837	Rejected
H3b	TC->PIJ	0.556	0.136	0.707	0.066	0.151	1.048	0.298	Rejected
H3c	TC->PINFJ	0.814	0.057	0.766	0.058	0.048	0.597	0.553	Rejected
N=		31		35					

5. Conclusion and Discussions

The aim of this study was to test the relationship between team cohesion and peer justice and explore the moderating effect of female team leadership and team type on the relationship between team cohesion and peer justice (procedural, interpersonal, informational).

H1 hypothesis ‘*Team cohesion is positively associated with (a) peer procedural justice, (b) peer interpersonal justice, (c) informational justice*’ was supported. The finding on team cohesion is consistent with the literature. Team cohesion improves justice perceptions (Colquitt & Jackson, 2006) and it has a positive effect on procedural justice development in teams (Shaw, 1981). According to Naumann and bennet (2000), higher level of team cohesion is associated with higher level of procedural justice perceptions.

H2 hypothesis ‘*Female team leadership will moderate the relationship between (a) team cohesion and peer procedural justice, (b) team cohesion and peer interpersonal justice, (c) team cohesion and peer informational justice*’ was rejected. Many researchers have studied considerably on team cohesion and advantages of female team leadership and these studies generally examined the constructs with team performance (e.g., Beal, Cohen, Burke, & McLendon, 2003; Dezsö & Ross, 2012). But the moderator effect of female team leadership on the relationship between team cohesion and peer justice was examined for the first time. The results of this study indicated that the relationship between team support and peer justice was unaffected by team leader’s gender. In other words, there was no significant difference between female and male leaders as an enhancement to the team cohesion – peer justice relationship.

H3 hypothesis ‘*Team type will moderate the relationship between (a) team cohesion and peer procedural justice, (b) team cohesion and peer interpersonal justice, (c) team cohesion and peer informational justice*’ was rejected. Although some researchers have found significant relationship between team type and team level outcomes (Pearson, 1992), others have found no any difference (Batt & Applebaum, 1995). That is, the evidence for the effect of team type on team member’s perceptions and

attitudes is mixed. In this study, the data provided no evidence for significant different effect of team type on team cohesion – peer justice relationship.

For future research, peer distributive justice can be examined since there is a lack of research on this dimension. Additionally, like in every new concept, there has been a few research conducted on peer justice yet (e.g., Cropanzano et. al., 2011, Molina, Moliner, Martinez-Tur, Cropanzano & Peiro, 2015). Therefore, possible antecedents and consequences of peer justice can be explored to contribute to the growing peer justice research.

One of the limits of the present research is that it has been conducted on relatively small sample size. Since small sample size (N=66 teams) makes the results generalizability limited, for future studies, larger sample can provide more generalizable results. Second, generally many researchers examine only one type of team (e.g., Driskell & Salas, 1992), although teams differ significantly in team level outcomes (Abbott, Bond & Miles, 2006). In this study, although the effects of production and service teams were examined, these two types are classified under physical work teams by Devine (2002). For more comparative study, intellectual work teams need to be included as well.

For practical implications, recent studies on peer justice show that positive justice perceptions among team members have significant effect on employees' well-being, satisfaction and performance (Molina, Jakopec, Cropanzano & Moliner, 2017). So it is crucial to generate fairness in workplaces. One of the methods to promote fairness in the workplace is to train employees. Firstly, since managers may not account for principles of organizational justice when they face with work pressure, it is thought to be beneficial to train managers on how to be fair to promote fairness in the workplace (Greenberg, 2005) and also it should be taken into consideration that the managers are role model for their subordinates. Secondly, according to Cropanzano et al., (2011) peer justice is also crucial and team members should be trained to treat their peers fairly, besides training managers. Finally, highly friendly and supportive work environment of cohesive teams may strengthen peer justice related outcomes (e.g., affective commitment, citizenship behavior).

References

- Abbott, J. B., Boyd, N. G., & Miles, G. (2006). Does type of team matter? An investigation of the relationships between job characteristics and outcomes within a team-based environment. *The Journal of Social Psychology, 146*(4), 485-507.
- Andrews, M. C., Kacmar, K. M., Blakely, G. L., & Bucklew, N. S. (2008). Group cohesion as an enhancement to the justice— affective commitment relationship. *Group & Organization Management, 33*(6), 736-755.
- Ambrose, M. L., & Schminke, M. (2009). The role of overall justice judgments in organizational justice research: A test of mediation. *Journal of Applied Psychology, 94*(2), 491-500.
- Ang, S., Van Dyne, L., & Begley, T. M. (2003). The employment relationships of foreign workers versus local employees: A field study of organizational justice, job satisfaction, performance, and OCB. *Journal of Organizational Behavior, 24*(5), 561-583.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science, 16*(1), 74-94.
- Bart, C., & McQueen, G. (2013). Why women make better directors. *International Journal of Business Governance and Ethics, 8*(1), 93-99.
- Batt, R., & Appelbaum, E. (1995). Worker participation in diverse settings: does the form affect the outcome, and if so, who benefits?. *British Journal of Industrial Relations, 33*(3), 353-378.

- Beal, D. J., Cohen, R. R., Burke, M. J., & McLendon, C. L. (2003). Cohesion and performance in groups: a meta-analytic clarification of construct relations. *Journal of Applied Psychology*, 88(6), 989-1004.
- Bell, S. T. (2007). Deep-level composition variables as predictors of team performance: A meta-analysis. *Journal of Applied Psychology*, 92(3), 595-615.
- Bettenhausen, K. (1991). Five years of groups research: what have we learned. *Journal of Management*, 17(2), 315-336.
- Bliese, P. D., & Halverson, R. R. (1996). Individual and Nomothetic Models of Job Stress: An Examination of Work Hours, Cohesion, and Well-Being. *Journal of Applied Social Psychology*, 26(13), 1171-1189.
- Budman, S. H., Soldz, S., Demby, A., Davis, M., & Merry, J. (1993). What is cohesiveness? An empirical examination. *Small Group Research*, 24(2), 199-216.
- Burke, K., & Leben, S. (2007). Procedural fairness: A key ingredient in public satisfaction. *Court Review*, 44(1-2), 4-25.
- Cartwright, D. & Zander, A. (1968). *Group dynamics: Research and theory* (3rd Ed.). New York: Harper & Row.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.
- Colquitt, J. A., & Jackson, C. L. (2006). Justice in teams: The context sensitivity of justice rules across individual and team contexts. *Journal of Applied Social Psychology*, 36(4), 868-899.
- Colquitt, J. A., Noe, R. A., & Jackson, C. L. (2002). Justice in teams: Antecedents and consequences of procedural justice climate. *Personnel Psychology*, 55(1), 83-109.
- Conlin, M. (2003). The new gender gap: From kindergarten to grad school, boys are becoming the second sex. *Business Week*.
- Cook, C.W., Hunsaker, P.L., & R.E. Coffey, 1997. Management and organizational behavior. McGraw-Hill Companies, Inc.
- Cropanzano, R., Li, A., & Benson III, L. (2011). Peer justice and teamwork process. *Group & Organization Management*, 36(5), 567-596.
- Devine, D. J. (2002). A review and integration of classification systems relevant to teams in organizations. *Group Dynamics: Theory, Research, and Practice*, 6(4), 291-310.
- Dezső, C. L., & Ross, D. G. (2012). Does female representation in top management improve firm performance? A panel data investigation. *Strategic Management Journal*, 33(9), 1072-1089.
- Dion, K. L. (2000). Group cohesion: From "field of forces" to multidimensional construct. *Group Dynamics: Theory, Research, and Practice*, 4(1), 7-26.
- Driskell, J. E., & Salas, E. (1992). Collective behavior and team performance. *Human factors*, 34(3), 277-288.
- Eagly, A. H. (2005). Achieving relational authenticity in leadership: Does gender matter?. *The Leadership Quarterly*, 16(3), 459-474.
- Eagly, A. H., & Carli, L. L. (2003). The female leadership advantage: An evaluation of the evidence. *The leadership quarterly*, 14(6), 807-834.
- Eagly, A. H., & Wood, W. (2012). Social Role Theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of Theories of Social Psychology: Volume Two* London: Sage Publications.
- Ensley, M. D., Pearson, A. W., & Amason, A. C. (2002). Understanding the dynamics of new venture top management teams: cohesion, conflict, and new venture performance. *Journal of business venturing*, 17(4), 365-386.
- Fornell, C., & Larcker, D. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39-50.
- Forsyth, D. R. (2001). Therapeutic groups. In Hogg, M. A., & Tindale, R. S. (Eds.). *Blackwell handbook of social psychology: Group processes*, 3, (pp. 628-659). Oxford, UK: Blackwell.
- Gardner, D. E., Shields, D. L. L., Bredemeier, B. J. L., & Bostrom, A. (1996). The relationship between perceived coaching behaviors and team cohesion among baseball and softball players. *The Sport Psychologist*, 10(4), 367-381

- Goodman, P. S., Ravlin, E., & Schminke, M. (1987). Understanding groups in organizations. *Research in Organizational Behavior*, 9, 121-173.
- Greenberg, J. (2005). *Managing behavior in organizations* (4th Ed.). Prentice Hall.
- Gully, S. M., Devine, D. J., & Whitney, D. J. (1995). A meta-analysis of cohesion and performance: Effects of level of analysis and task interdependence. *Small group research*, 26(4), 497-520.
- Gundlach, M., Zivnuska, S., & Stoner, J. (2006). Understanding the relationship between individualism–collectivism and team performance through an integration of social identity theory and the social relations model. *Human relations*, 59(12), 1603-1632.
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM) (2. Edition)*, Sage Publications.
- Harrison, A. W. (1993). *Work-group effectiveness: a structural equations analysis of the effects of individual differences*, unpublished doctoral dissertation, Auburn University.
- Heffernan, M. (2002). The female CEO. *Fast Company*, 61, 58- 66.
- Hoegl, M., & Gemuenden, H. G. (2001). Teamwork quality and the success of innovative projects: A theoretical concept and empirical evidence. *Organization science*, 12(4), 435-449.
- Hogg, M. A. (2001). Social categorization, depersonalization, and group behavior. In Hogg, M. A., & Tindale, R. S. (Eds.), *Blackwell handbook of social psychology: Group processes*, 4, (pp. 56-85). Oxford, UK: Blackwell.
- James, L. R., Demaree, R. G. & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of applied psychology*, 69(1), 85-98.
- Jordan, J. V., & Surrey, J. L. (1986). The self-in-relation: Empathy and the mother-daughter relationship. In T. Bernay & D. W. Cantor (Eds.), *The psychology of today's woman: New psychoanalytic visions* (pp. 81-104). Cambridge, MA, US: Harvard University Press.
- Keil, M., Tan, B. C., Wei, K. K., Saarinen, T., Tuunainen, V., & Wassenaar, A. (2000). A cross-cultural study on escalation of commitment behavior in software projects. *MIS quarterly*, 299-325.
- Keller, R. T. (1986). Predictors of the performance of project groups in R & D organizations. *Academy of management journal*, 29(4), 715-726.
- Keller, R. T. (1983). Predicting absenteeism from prior absenteeism, attitudinal factors, and nonattitudinal factors. *Journal of Applied Psychology*, 68(3), 536-540.
- LeBreton, J. M. & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational research methods*, 11(4), 815-852.
- Levanthal, G. S. (1976). Fairness in social relationships. In J.W. Thibaut, J. T. Spence & R. C. Carson (Eds), *Contemporary Topics in Social Psychology*. (pp. 211-239). Morristown, NJ: General Learning Press.
- Li, A., & Cropanzano, R. (2009). Fairness at the group level: Justice climate and intraunit justice climate. *Journal of management*, 35(3), 564-599.
- Li, A., Cropanzano, R., & Bagger, J. (2013). Justice climate and peer justice climate: A closer look. *Small Group Research*, 44(5), 563-592.
- Lyons, N. P. (1983). Two perspectives: On self, relationships, and morality. *Harvard Educational Review*, 53(2), 125-145.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological review*, 98(2), 224.
- Martínez-Tur, V., Moliner, C., Ramos, J., Luque, O., & Gracia, E. (2014). Quality and well-being in service organizations: the role of service climate and organizational justice. *Papeles del Psicólogo*, 35(2), 99-106.
- Miles, J. A. (2000). Relationships of collective orientation and cohesion to team outcomes. *Psychological Reports*, 86(2), 435-444.
- Molina, A., Moliner, C., Martínez-Tur, V., Cropanzano, R., & Peiró, J. M. (2015). Unit-level fairness and quality within the health care industry: a justice–quality model. *European Journal of Work and Organizational Psychology*, 24(4), 627-644.
- Molina, A., Jakopcic, A., Cropanzano, R., & Moliner, C. (2017). The role of peer justice climate. In C. Moliner, R. Cropanzano & V. Martinez-Tur (Eds.), *Organizational Justice: International Perspectives and Conceptual Advances* (1st Ed.) (pp. 87- 106). Routledge.

- Mullen, B., & Copper, C. (1994). The relation between group cohesiveness and performance: An integration. *Psychological Bulletin*, 115(2), 210–227.
- Naumann, S. E. & Bennett, N. (2000). A case for procedural justice climate: Development and test of a multilevel model. *Academy of Management Journal*, 43(5), 881-889.
- O'Reilly III, C. A., Caldwell, D. F., & Barnett, W. P. (1989). Work group demography, social integration, and turnover. *Administrative Science Quarterly*, 21-37.
- Organ, D. W., & Hamner, W. C. 1982. Organizational behavior. Plano, TX: Business Publications.
- Pearson, C. A. (1992). Autonomous workgroups: An evaluation at an industrial site. *Human Relations*, 45(9), 905-936.
- Pease, D. G., & Kozub, S. A. (1994). Perceived coaching behaviors and team cohesion in high school girls basketball teams. *Journal of Sport & Exercise Psychology*, 16, S93.
- Post, C. (2015). When is female leadership an advantage? Coordination requirements, team cohesion, and team interaction norms. *Journal of Organizational Behavior*, 36(8), 1153-1175.
- Robbins, S.P. & Judge, T.A. (2010). *Essentials of Organizational Behavior* (10th ed.). Upper Saddle River, N.J. : Pearson/Prentice Hall,
- Roberson, Q. M. (2006). Justice in teams: The effects of interdependence and identification on referent choice and justice climate strength. *Social Justice Research*, 19(3), 323-344.
- Rosener, J. B. (1990). Ways women lead. *Harvard Business Review*, 68(6), 119-125.
- Ruiz, P., Ruiz, C., & Martínez, R. (2011). Improving the “leader–follower” relationship: Top manager or supervisor? The ethical leadership trickle-down effect on follower job response. *Journal of Business Ethics*, 99(4), 587-608.
- Schminke, M., Ambrose, M. L., & Miles, J. A. (2003). The impact of gender and setting on perceptions of others' ethics. *Sex Roles*, 48(7-8), 361-375.
- Schneider, B. (1987). The people make the place. *Personnel psychology*, 40(3), 437-453.
- Schneider, B., & Reichers, A. E. (1983). On the etiology of climates. *Personnel psychology*, 36(1), 19-39.
- Schneider, B., White, S. S., & Paul, M. C. (1998). Linking service climate and customer perceptions of service quality: Tests of a causal model. *Journal of applied Psychology*, 83(2), 150.
- Shaw, M. E. (1981). *Group Dynamics: The Psychology of Small Group Behavior*, 3rd Edition, New York:McGraw-Hill.
- Sundstrom, E. (1999). *The challenges of supporting work team effectiveness*. In E. Sundstrom & Associates (Eds.), *Supporting work team effectiveness: Best management practices for fostering high performance* (pp. 3–23). San Francisco, CA: Jossey-Bass.
- Thibaut, J. W., & Walker, L. (1975). *Procedural justices: A psychological analysis*. L. Erlbaum Associates.
- Vecchio, R. P. (2003). In search of gender advantage. *The Leadership Quarterly*, 14(6), 835-850.