The Mediating Role of the Leader-Member Exchange in the Relationship between the Pelz Effect and Job Satisfaction

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ABSTRACT

This study aims at testing the mediating role of the leader-member exchange in the relationship between the Pelz effect as the independent variable and job satisfaction as the dependent variable. Using the face-to-face survey method, data were collected from 109 white-collar staff members working in a district municipality in Mersin, Turkey. The data collected were assessed using the SPSS 20.0 program. Because of a correlation analysis performed to make an assessment, a positive relationship of medium-level significance was found to exist between job satisfaction and leader-member exchange. It was also found that a positive relationship of medium-level significance existed between the leader-member exchange and the Pelz effect, as the mediating variable and independent variable of the study respectively. It was found in the regression analysis that the leader-member exchange had a partial mediating role in the relationship between the Pelz effect and job satisfaction.

JEL Classifications: D23, M12, M51, M54

Keywords: job satisfaction; leader-member exchange; leadership; the Pelz effect

I.   INTRODUCTION

The leader-member theory is based on the idea that leaders develop different levels of relationships with their subordinates. A leader's relationship with his/her subordinates in an organization is affected by multiple factors, such as culture, ethics, justice, honesty, and HR applications of the involved organization. The degree of this effect determines the quality of leader-member exchange. A high level of communication developed by the leader with his/her subordinates and superiors contributes to the quality of this relationship. When a leader has a wide area of influence, leader-member exchanges with subordinates will improve, and employees' job satisfaction will increase because the subordinates notice that their leader has a good communication level with his/her own superiors. The Pelz effect posits that a leader's communication with their superiors arranges their communication with subordinates, and this study proposes that it can affect the levels of job satisfaction of employees. It is presumed in this study, again, that high-quality leader-member exchanges can play a mediating role with the impact of the Pelz effect on job satisfaction levels.

In fact, the leader-member exchange theory determines the quality of the unique relationships that a leader establishes with his/her subordinates and focuses on how a leader can improve himself / herself. For this reason, the leader-member exchange theory is a method that should be considered by organizations in management applications. An effective implementation of this theory in organizations would eliminate many unnecessary steps in the functioning of these organizations and simplify their organizational structures. Hence, the organization would become more flexible and agile. As for individuals, their motivation and performance levels improve, and consequently, their degree of job satisfaction would increase. The energy and time spent by individuals for work would also increase, and briefly, both sides would mutually benefit from the situation. Because of high-quality relationships established by the leader with his/her subordinate, the staff would gain strength, employees would obtain more autonomy and self-efficacy, and the business' transparency and client-oriented behavior among group members will improve (Hall et al., 2016).

The leader-member exchange theory holds a remarkably important place among leadership theories due to its advantages for both the individuals and organizations. This is because organizations of today have become aware that leaders who develop good relations with employees affect organizational outcomes positively, whereas ones who do not develop such relations affect them negatively, and that the degree of these relations is the key component to organizational success. Therefore, this theory drew the attention of many researchers, as well as organizations, and was found to be worth thinking about and studying.

II.   LEADER-MEMBER EXCHANGE

In the field of organizational leadership, the leader-member exchange theory is regarded as one of the most interesting theories that examine the relationship between leadership process and its outcomes (Gerstner and Day, 1997). The leadership theory, which was first introduced by Dansereau, Graen and Haga (1975) and named as the Vertical Dyad Linkage Model earlier, was developed by tackling the exchange between leader/manager and members/subordinates (followers) within the framework of a vertical dyadic

approach, and was renamed as the "Leader-Member Exchange Theory (LMX)" (Özutku et al., 2008).

The leader-member exchange theory studies the dyadic relationship between a leader and his followers. It considers the relationship between the leader and his follower on an individual basis, depending on the assumption that a leader does not interact in the same way with all group members in the environment, and that this relationship occurs differently between the leader and each of the followers (Çalışkan, 2018). In brief, the leader-member theory is based on the postulate that leaders or managers develop different quality relations with their subordinates through interactions, and that the quality of these relationships affect individual and organizational outcomes (Cinel and Özdaşlı, 2017).

The relationships between superiors and subordinates in leader-member exchange show differences in that they range from high quality to low quality, according to the theory. The group of subordinates with whom a leader develops a high-quality relationship is defined as an "in-group (the adopted, trusted assistants)", whereas the group of the ones with whom the leader develops low-quality relationships is defined as an "out-group (the excluded, hired hands)". Such discrimination emerges fully because of a leader's capability to identify and perceive. The value of an unfavored employee for the manager and his role expectations support such discrimination (Bolat et al., 2017; Yu et al., 2018; Cropanzano et al., 2017; Chuang et al., 2018; Aleksić, et al., 2016; Hall et al., 2016).

An in-group is also known as a group with high-quality leader-member exchange. The ones in an in-group receive high levels of exchange, support and trust from superiors, and their superiors reward them more than others, officially or unofficially (inside information, granting participation in decision-making, task definition, job latitude, support and attention) responsibilities (Bolat et al., 2017; Yu et al., 2018; Cropanzano et al., 2017; Chuang et al., 2018; Aleksić et al., 2016; Hall et al., 2016).

The exchange relationship with employees in the out-group differs largely. A relatively lower level of interaction occurs in such an exchange; superiors use their positional powers against these employees and develop relationships with the ones in this group based on formal rules, policies, power relations and contracts. For this reason, the out-group is named, with regard to the quality of relationship, as the "low-quality group". The leader expects this group of subordinates to fulfill the tasks and responsibilities that are formally assigned. The subordinates enjoy their prescribed rights to the extent that they fulfill the expected tasks and responsibilities (Bolat et al., 2017; Yu et al., 2018; Cropanzano et al., 2017; Chuang et al., 2018; Aleksić, et al., 2016; Hall et al., 2016).

Subordinates may distance themselves from work because of being a member of the out-group, and it can be assumed that their exchange with people in the surroundings are likely to decline. An alienated employee actually becomes self-estranged and alienated from his own essence, and does not enjoy organizational factors that are meant to satisfy him. He does not cooperate towards organizational aims, since he does not have future expectations related with the organization. Because of feeling alienated from work, these employees cannot understand the point of what they do, cannot use all of their energy and potential, think that they are incompetent regarding participating in company decisions, and may come into conflict with other employees. Because of this, a leader with such relationships may cause the business to be negatively affected from the conditions of competition (Tanrıverdi and Kahraman, 2016).

In contrast, when the leader-member exchange' quality is high, employee' commitment, organizational citizenship, job satisfaction, extra role behavior, productivity, team effectiveness, performance and career development improve, whereas employee' turnover, work-related stress and accidents decline (Bolat, 2011; Morganson et al., 2017; Lloyd et al., 2017; Omilion-Hodges and Baker, 2017). The leader can make the most of the resources and time by this way (Seo et al., 2018). There are different degrees of relationships between leaders and their subordinates according to the leader-member exchange theory. Leaders' exchanges with their subordinates are not uniform since their time and resources are limited (Göksel and Aydıntan, 2012). Emotional contagion also plays a part in the uniformity of these relationships. Both side' emotions pass to each other through emotional contagion and determine the quality of the exchange (Cropanzano et al., 2017).

Leader-member exchange consist of three phases. The first phase is defined as the "stranger phase". Exchange, in this phase, is minimal, tasks and expectations are at the standard level, and the leader's basic interests are oriented towards the people's expectations and needs in general. The effect of demographic factors on the leader-member exchange is generally related to this phase. The second phase is named as the "acquaintance phase", which can be defined as the trial process. Reciprocal additional tasks and responsibilities are tested in this phase. Exchanges are at a moderate level, and the corresponding person's, as well as the person's, own needs and expectations are important. The third phase is defined as the "partnership phase", in which reciprocal exchanges are at high levels. People are functioning well beyond their standard job descriptions and responsibilities. Their needs and expectations are related to the group (Ordun and Aktaş, 2014). However, these relationships cannot be considered separately from the leader's relationship with the top management, in other words, they are independent of the Pelz effect.

III.   THE PELZ EFFECT

The Pelz effect is a premise that explains subordinates' satisfaction of their jobs and leaders through the degree and scope of their leaders' upward influence. It contends that the personnel who work with leaders with a wide impact area have higher levels of satisfaction (Meydan et al., 2018: 79). According to another definition, Pelz effect is a premise claiming that leader's effectiveness and his power to orient the subordinates toward the issue of achieving organizational success cannot be discussed independent of the leader's power to influence his superiors, to make his superiors listen to him and to obtain strategic information from them (Meydan et al., 2018: 75).

The Pelz effect asserts that a leader's communication with his superiors also arranges his communication with subordinates. According to the Pelz effect, as they are equipped with more powers, the leaders who have a wide influence area provide the subordinates with a supportive and socially more intimate environment. Hence, the leaders have the powers both to be able to notice and meet the needs of the subordinates. Influential leaders, according to the Pelz effect, act as a mediator and play the role of an "associate member" in satisfying the needs of the subordinates. At the same time, influential leaders develop desired solutions to work-related problems by facilitating access to boss and top managers at the high hierarchical levels of the organization. As this atmosphere created by influential leaders generates benefits and added value for their

work teams, the subordinates are more satisfied (Meydan et al., 2018: 79). The effect of leaders' hierarchical influence on the subordinates' attitude and behavior was named the "Pelz effect" after Pelz pointing out that the leaders' upward influence increase their employees' satisfaction (Jablin, 1980; Meydan et al., 2018: 79).

According to Jablin (1980), the power of leader's upward influence affects the power of his downward influence. The leaders who have a wide impact area and are relatively dominant in decisions at both strategic and operational levels will increase the level of their employees' satisfaction with the leaders they receive. The hierarchical influence of the leader has also to do with employees' sense of hierarchical control, perceived support and intra-team cooperative behaviors (Anderson and Tolson, 1991; Meydan et al., 2018: 79). In sum, according to Pelz (1952), the nature of leader-member exchange cannot be explained without considering the leader's upward influence. In this context, the supportive and sanctioning powers of the leaders who do not have powerful and effective communication with the superiors will remain limited (Meydan et al., 2018: 80).

Pelz (1951) reported that a leader's strong upward influence increased employee job satisfaction. A large body of research that tested Pelz's (1951) hypothesis found that the Pelz effect enhanced employee satisfaction. The fact that influential leaders are backed by top managements makes group members respond positively when they are offered help by these leaders, and hence, they feel more satisfied. Non-influential leaders will not be favored by the group members and their initiatives will not affect employee job satisfaction since these leaders are not sufficiently backed by the top management and they cannot provide adequate resources. The Pelz effect also helps employees to enhance their perception of self-monitoring in the organization (Anderson et al., 1990: 707).

In this context, according to this effect, leader's effectiveness is his power to be able to make his superiors listen to him and to obtain strategic information from them rather than their leadership style (participatory leadership, autocratic leadership, work-employee oriented leadership etc.). In the next stage, the leader, who is equipped with strategic information, makes employees feel valuable and empowered, and consequently, contributes to the enhancement of their performance by regularly transferring information to subordinates. The quality of the leader's leader-member exchange with his superiors affects group members' leadership perception, work behavior and attitude. Furthermore, it creates more perceived support, interest, participation in decision-making processes, productivity, supervisor sensitivity, less negative work-related experience and more job satisfaction (Meydan et al., 2018: 80).

IV.   JOB SATISFACTION

Job satisfaction is the contentedness of employees with their jobs. Job satisfaction is a phenomenon that occurs when job characteristics and employees' needs overlap, and that determines the employees' feeling of contentedness with their jobs (Akıncı, 2002). In other words, job satisfaction describes employees' positive feelings with respect to their own job. The needs of an employee who has these feelings can be deemed satisfied. Job satisfaction is vitally important for an employee, since it improves an employee's commitment, performance, productivity and sense of responsibility. Besides, it decreases turnover rate, absenteeism and stress level (Randhawa and Narang, 2018).

Job satisfaction does also affect employees' health, happiness and work-life balance and provides the organization a competitive advantage, as a result (Crespi-Vallbona and Mascarilla-Miró, 2018). In addition to having many individual outcomes, job satisfaction positively affects individual outcomes for also being the main factor of employee career development. From an organization's viewpoint, it is recognized as the main determinant of an organization's success (Ranaweera and Li, 2018).

Job satisfaction is characterized as the positive mood and attitude developed by employees vis-à-vis their jobs as a result of their experience and the tasks they fulfil successfully. Job satisfaction is influenced by many factors, which are opportunities for development, work-related stress, executives' leadership capabilities, workforce standards, sufficiency of reward or compensation, authority and responsibility. Job satisfaction affects many factors, like an organization's innovation capability; it is also affected by several factors (Hrnjic et al., 2018). Thus, job satisfaction has a practical importance in an organization's management. In fact, job satisfaction is the outcome of the characteristics of a job (Crespi-Vallbona and Mascarilla-Miró, 2018).

Job satisfaction appears in the form of intrinsic and extrinsic satisfaction with regard to an individual. Satisfaction obtained as a result of work, such as pay/financial rewards is termed as "extrinsic satisfaction", while satisfaction obtained during work, such as the sense of accomplishment, is termed as "intrinsic satisfaction" (Deniz, 2005). Job satisfaction describes, at the same time, a subjective phenomenon as an outcome of the synchronization between behavior and attitude (Safarpour et al., 2018). The subjective phenomenon implies the practices of an organization in the systems of recruitment and dismissal, reward, performance and punishment (Crespi-Vallbona and Mascarilla-Miró, 2018). In other words, job satisfaction incorporates employees' positive and negative feelings about their job (Güçer and Demirdağ, 2014), and is defined as a positive impact posed to the job as a collection of positive reactions or emotions about the job (Crespi-Vallbona and Mascarilla-Miró, 2018).

Job satisfaction has an unprecedented impact on individuals' reactions to, for example, working conditions, opportunities and outcomes, as well as their emotions and attitudes. Job satisfaction generally comes from factors such as recognition, opportunities, career development and compensation, as well as job type, working conditions, working climate, leadership and control (Crespi-Vallbona and Mascarilla-Miró, 2018).

## V.   MATERIALS AND METHODS

This section of the research gives an account of the research aim, method and model, population and sample, data collection tool, statistical tests and techniques used for data interpretation, and research results.

A.   The Research Aim

The aim of this research was to find whether the Pelz effect had an effect on job satisfaction. If it showed an impact on employee' job satisfaction, the aim was, then, to test the existence of the mediating role of leader-member exchange on that effect. Another aim of this study was to investigate whether or not employee' job satisfaction varied with respect to demographic factors.

B.   The Research Model and Hypotheses

This research used a survey model that treated employee' job satisfaction as the dependent variable, the Pelz effect as the independent variable, and the leader-member exchange as the moderator variable. Seven hypotheses were used in this research, and these hypotheses were tested using the Pelz effect as the independent variable, job satisfaction as the dependent variable, and the leader-member exchange as the moderator variable and demographical variables. The following conceptual model was developed in relation to the proposed hypotheses (Figure 1).

Figure 1
The research model
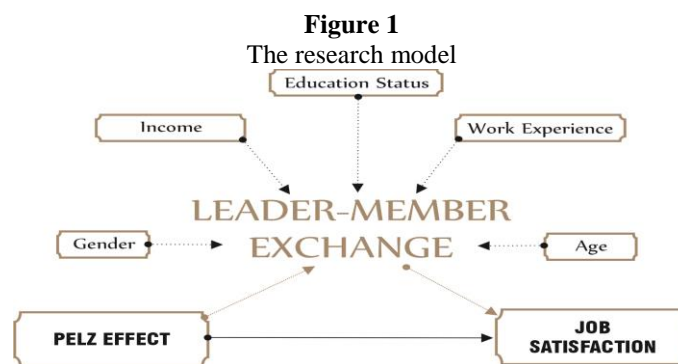
The hypotheses of the research are listed below:

Hypothesis 1a: There is a significant relationship between the Pelz effect and job satisfaction.
Hypothesis 1b: Leader-member exchange has a mediating role in the relationship between the Pelz effect and the job satisfaction.
Hypothesis 1c: The job satisfaction perception varied based on gender.
Hypothesis 1d: The job satisfaction perception varied based on income level.
Hypothesis 1e: The job satisfaction perception varied based on educational status.
Hypothesis 1f: The job satisfaction perception varied based on work experience.
Hypothesis 1g: The job satisfaction perception varied based on age.

C.   Scales Used in the Research

1.   The leader-member exchange scale

 A 7-item leader-member exchange scale, which was developed by Scandura and Graen (1984) and translated by Atılmış and Bolat (2016) to Turkish, was used to determine the employees' level of exchange with their leaders. The items in the scale were measured using 5-point likert- type scale ranging between "1=Strongly Disagree" and "5=Strongly Agree".

2.   The job satisfaction scale

The 5-point Likert-type questionnaire "Minnesota Job Satisfaction Scale", which was translated to Turkish by Baycan (1985) and it was tested for validity and reliability in this research. The items in the scale were measured using 5-point Likert-type scale ranging; "1=Very Dissatisfied", "2=Dissatisfied", "3=Neither Satisfied nor Dissatisfied", "4= Satisfied" and "5=Very Satisfied".

3.   The Pelz scale

A single factoral and 6-item scale developed by Meydan et al. (2018) was utilized to measure the quality of the relationship of employees' supervisors with their own superiors. The items in the scale were rated on a 5-point Likert-type system that ranged between "1=Strongly Disagree" and "5=Strongly Agree". A "Personal Information Form", which consisted of six variables and included demographic information, was also annexed to the questionnaires.

D.   Data Collection and Data Analysis Methods

The data required to test the research hypotheses were collected from the sample through face-to-face survey method. The data were evaluated using SPSS 20.0 (Statistical Package for Social Sciences) and AMOS 24.0 (Analysis of Moment Structures) software programs. Confirmatory factor analysis was used to determine construct validity, and a reliability analysis was conducted to determine internal consistency. Correlation analysis was performed to find the direction and strength of the relationship between the variables; simple linear regression and multiple regression analysis were performed to investigate the relationship between the variables, and independent-samples t-test and one-way ANOVA test were performed to identify differences.

E.   The Sample Group

The sample group of the research consisted of 109 white-collar personnel working at a district municipality operating in the province of Mersin. The facts that the white-collar personnel were working at desk using their brainpower and not their physical power, and that their education levels, their awareness and their interactions with their leaders were higher than those of the blue-collar workers all were played a big role in the selection of this sample group. Additionally, due to time and cost limitations, a municipality was selected in this research which operates in a region easily accessible to the researchers, and is a public organization from which reliable information could be obtained, increasing the validity and reliability of the research conducted on it.

Municipalities are public organizations established for providing all the individuals that constitute a society's dwelling in a certain area with services related to them. The managers of these organizations are voted in by the local society. In order for the public services to satisfy the individuals that constitute the local society, those who provide these services must be satisfied with the job they are doing. Because of the application of effort-intensive production systems at municipalities, providing job satisfaction for employees has a greater importance compared to other organizations. The workers with low job satisfaction cannot be expected to offer services, which are

satisfactory to the individuals within the boundaries of the municipal's territory (Akman et al., 2016).

All of the 109 surveys distributed to the participants in this research, in which the full count method was used, were returned. However, 16 surveys that were filled out incorrectly were excluded from assessment and so 93 surveys were included in assessment.

F.   Findings Obtained through the Research

1.   The frequency analysis

Table 1 presents descriptive statistics of the sample. According to Table 1, 25.8% of the sample participants were male and 74.2% were female. The dominance of the female gender is remarkable, according to the data. Regarding the employees' age, it was observed that there was an accumulation of employees younger than 53 years old by an 88.2% majority. Furthermore, 40.9% of the participants had graduate levels of education. Regarding monthly incomes, 86% of the participants had an income level of 1500 to 4500 Turkish Liras. As for work experience, 89.2% of the participants had an experience total of over 5 years.

Table 1
Descriptive statistics

|	Frequency	Percentage	Cumulative percentage
Gender			
Male	24	25.8 %	25.8 %
Female	69	74.2 %	100.0 %
Age			
21 and younger	4	4.3 %	4.3 %
22-36	33	35.5 %	39.8 %
37-52	45	48.4 %	88.2 %
53-71	11	11.8 %	100.0 %
Educational status			
High school	55	59.1 %	59.1 %
Undergraduate	13	14.0 %	73.1 %
Graduate	20	21.5 %	94.6 %
Postgraduate (Master)	5	5.4 %	100.0 %
Monthly income			
1500-3000 TL	37	39.8 %	39.8 %
3001-4500 TL	43	46.2 %	86.0 %
4501-6000 TL	11	11.8 %	97.8 %
6001 TL and more	2	2.2 %	100.0 %
Work experience			
5 year and less	10	10.8 %	10.8 %
6-13	32	34.4 %	45.2 %
14-21	22	23.7 %	68.9 %
22-29	24	25.8 %	94.7 %
30 year and more	5	5.3 %	100.0 %

2.   The validity and reliability analysis

Confirmatory factor analysis was performed to identify the construct validity of the scales utilized in the research. The recommended nominal values obtained by the confirmatory factor analysis that was applied to the 7-item leader-member exchange scale is presented in Table 2 below.

Table 2
The Leader-member exchange scale / Recommended fit values

Fit criterion	χ^2	p	χ^2 / sd	RMSEA	CFI	SRMR	NFI	GFI
Recommended fit value	11.588	0.314	1.159	0.042	0.995	0.02	0.969	0.967

The data relating to the recommended fit values in Table 2 show the value of chi square= 11.588, p = 0.314, RMSEA = 0.042, GFI = 0.967, chi square/degrees of freedom value of = 1,159, SRMR = 0,02, CFI = 0.995 and NFI = 0.969. Figure 2 below demonstrates the standardized solution values of the tested leader-member exchange scale.

Figure 2
The leader-member exchange scale / standardized solution values
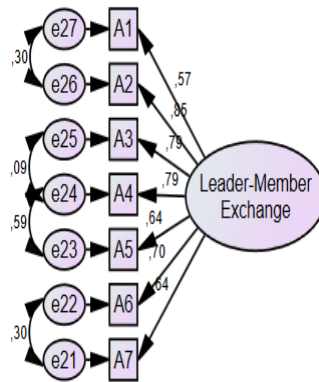
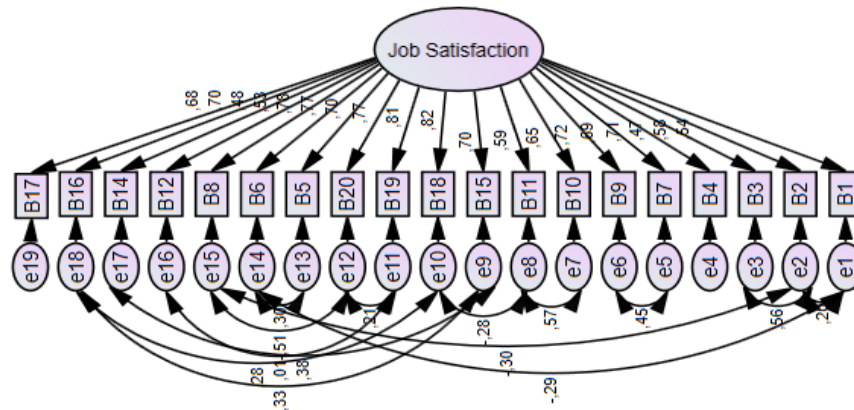The fit values found by the application of the confirmatory factor analysis to the job satisfaction scale are presented in Table 3 below.

Table 3

The Job satisfaction scale / recommended fit values

Fit criterion	χ^2	p	χ^2 / sd	RMSEA	CFI	SRMR	NFI	GFI
Recommended fit value	292.468	0.001	2.119	0.11	0.965	0.08	0.878	0.911

The data relating to the recommended fit values in Table 3 show the value of chi square= 292.468, p = 0.001, RMSEA = 0.11, GFI = 0.911, chi square/ degrees of freedom value of = 2.119, SRMR = 0.08, CFI = 0.965 and NFI = 0.878. The standardized solution values relating to the tested job satisfaction scale are presented in Figure 3 below.

Figure 3
The job satisfaction / standardized solution values

The recommended fit values obtained by the application of the confirmatory factor analysis to the 6-item Pelz scale are presented in Table 4.

Table 4
The Pelz scale / Recommended fit values

Fit criterion	χ^2	p	χ^2 / sd	RMSEA	CFI	SRMR	NFI	GFI
Recommended fit value	19.068	0.004	3.178	0.15	0.966	0.05	0.952	0.935

The data relating to the recommended fit values in Table 4 show the value of chi square= 19.068, p = 0.004, RMSEA = 0.15, GFI = 0.935, a chi square/ degrees of freedom value of = 3.178, SRMR = 0.05, CFI = 0.966 and NFI = 0.952. The standardized solution values relating to the tested Pelz effect scale are presented in Figure 4 below.

It is observed that the recommended fit values for the leader-member exchange scale in Table 2, for the job satisfaction scale in Table 3 and for the Pelz effect scale in Table 4 were in accordance with the goodness-of-fit statistics published by Şeşen and Meydan (2011). Hence, the construct validity of the scales utilized in the research was at an acceptable level.

One item was removed from the job satisfaction scale upon the confirmatory factor analysis and the scales' results of the reliability tests to ensure their validity, as presented in Table 5. The Cronbach's Alpha for the job satisfaction, leader-member exchange and Pelz effect scales were found to be 0.941, 0.884 and 0.876, respectively. The scales were determined to have internal consistency depending on these values.

Figure 4
The Pelz effect / standardized solution values
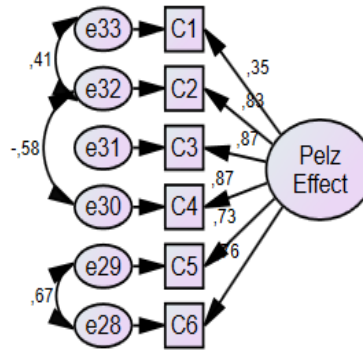
Table 5
The reliability test results

	Cronbach's alpha	Number of items
Job satisfaction scale	0.941	19
Leader-member exchange scale	0.884	7
Pelz scale	0.876	6

3.   The normality test

The Kolmogorov-Smirnov and Shapiro-Wilk values obtained by running a normality test with the research data were presented in Table 6, and their descriptive statistics are given in Table 7. According to Kolmogorov-Smirnov and Shapiro-Wilk values in Table 6, the data obtained from the scales do not fully show a normal distribution.

The skewness and kurtosis values for the scales utilized in the research are detailed in Table 7. It can be seen from the data in Table 7 that the skewness and kurtosis values of the data obtained from the scales, which do not have normal distribution according to the Kolmogorov-Smirnov values, were between -2 and +2. Thus, these data were found to have normal distribution according to George and Mallery's (2003) classification. Therefore, parametric techniques were utilized in the research.

Table 6
The results of the normality test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.(p)	Statistic	df	Sig.(p)
Leader-member exchange	0.135	93	0.000	0.947	93	0.001
Pelz effect	0.223	93	0.000	0.875	93	0.000
Job satisfaction	0.167	93	0.000	0.933	93	0.000

Table 7
Normality tests - descriptive statistics

		Statistic	Std. Error
Leader-member exchange	Skewness	-0.820	0.250
	Kurtosis	1.001	0.495
Pelz effect	Skewness	-1.202	0.250
	Kurtosis	1.980	0.495
Job satisfaction	Skewness	-0.997	0.250
	Kurtosis	2.009	0.495

4.   The correlation analysis

Table 8 gives the results of the correlation analysis between the dependent and independent variables, and the moderator and independent variables. According to the results, there was a positive relationship of moderate significance between job satisfaction, the dependent variable, and the Pelz effect, the independent variable. It was identified that there was also a significantly positive and moderate correlation between the Pelz effect, the independent variable, and the leader-member exchange, the moderator variable.

Table 8
The results of the correlation analysis

		Pelz effect
Job satisfaction	Pearson correlation	0.569
	Sig.(2-tailed)	0.000
Leader-member exchange	Pearson correlation	0.487
	Sig.(2-tailed)	0.000

5.   The regression analysis

Table 9 presents the simple linear regression analysis of the relationship between the Pelz effect and job satisfaction. Upon reviewing the result of the regression analysis conducted, it was found that the regression model to be developed showed statistical significance as the statistical significance values of the F value was less than 0.05.

Table 9
The relationship between the Pelz effect and job satisfaction-ANOVA

		Sum of squares	Mean square	F	Sig.(p)
Model 1	Job satisfaction	Regression	4,335 .509	4,335 .509	43.593	0.000
		Residual	9,050 .318	99.454		
		Total	13,385 .828			

ANOVA results of the regression analysis are presented in Table 10. According to the results, the alteration in the Pelz effect accounted for the 31.6% of the change in job satisfaction. The value that a job satisfaction can take can be formulated as follows:

$$\text{Job satisfaction} = 33.718 + (1.670 \times \text{Pelz effect}) \qquad (1)$$

Table 10
The relationship between the Pelz effect and the job satisfaction-model summary

			β	t	Sig.(p)	r^2	Adjusted r^2
Model 1	Job satisfaction	Constant	33.718	6.091	0.000	0.324	0.316
		Pelz effect	1.670	6.603	0.000		

According to the model, 1 unit increase in the Pelz effect resulted in a 1.670 unit increase in job satisfaction. These findings confirm the hypothesis of H_{1a}. However, to test the H_{1b} hypothesis, an intermediary role for leader member exchange needs to be examined. The moderator model designed by Baron and Kenny (1986) was applied for this. In order to mention the mediating effect of a variable according to this model, the independent variable needs to have an effect on a dependent variable; the independent variable needs to have an effect on a mediating variable, and when the mediating variable is included in the regression analysis, the regression coefficient of the independent variable on the dependent variable needs to decrease. Also, the mediating variable needs to have a significant effect on the dependent variable. The regression analysis performed in that regard is provided below.

Table 11 demonstrate the simple linear regression analysis between the leader-member exchange and the Pelz effect. According to the examined result of the regression analysis performed, it had been found that the regression model to be established indicated a statistical significance since the statistical significance values of the F values are lower than 0.05.

Table 11
The relationship between the leader-member exchange and the Pelz effect (moderator)-ANOVA

			Sum of squares	Mean square	F	Sig.(p)
Model 2	Leader-member exchange	Regression	646.280	646.280	28.337	0.000
		Residual	2,075.419	22.807		
		Total	2,721.699			

The ANOVA results of the regression analysis are presented in Table 12. According to the data, the change in the Pelz effect accounts for 22.9% of the change in the leader-membership exchange. The regression analysis was performed as the last step to find the moderator effect is given below.

Table 12
The relationship between leader-member exchange and the Pelz effect-Model summary

			β	t	Sig.(p)	r^2	Adjusted r^2
Model 2	Leader-member exchange	Constant	11.019	4.157	0.000	0.237	0.229
		Pelz effect	0.645	5.323	0.000		

Table 13 shows the multiple regression analysis of the relationship between the leader-member exchange and the Pelz Effect regarding job satisfaction. The regression model to be developed is statistically significant, according to the results of the regression analysis.

Table 13
The relationship of the leader-member exchange and the Pelz effect with job satisfaction-ANOVA

		Sum of squares	Mean square	F	Sig.(p)
Model 3	Job satisfaction	Regression	7,385.515	3,692.757		
		Residual	6,000.313	66.670	55.388	0.000
		Total	13,385.828			

The ANOVA results of the multiple regression analysis are presented in Table 14. According to the analysis results, the Pelz effect and the moderator variable, the leader-member exchange, together accounted for the 54.2% of the change in the employees' job satisfaction. When the three models developed were reviewed, it was found that the regression coefficient was 1.670 in measuring the relationship between the Pelz effect and job satisfaction; that the regression coefficient related to the Pelz effect decreased to 0.888 in Model 3, which was developed by adding the leader-member exchange the moderator variable to Model 1, and that the leader-member exchange had a statistically significant effect in Model 3. According to these results, it was determined that the leader-member exchange had a partial moderator effect on the relationship between the Pelz effect and job satisfaction.

Table 14
The relationship of the leader-member exchange and the Pelz effect with job satisfaction-Model summary

			β	t	Sig.(p)	R^2	Adjusted R^2
Model 3	Job satisfaction	Constant	20.360	4.118	0.000		
		Leader-member exchange	1.212	6.764	0.001	0.552	0.542
		Pelz effect	0.888	3.746	0.000		

6. The independent-samples T-Test

Table 15 shows the difference analysis between the job satisfaction and the gender of employees. It can be seen from the Table 15 that the significance value was greater than 0.05. According to the results of this analysis, it had been determined that the job satisfaction does not show any significant difference based on the gender of employees.

7. The one-way ANOVA test

Table 16 shows the difference analysis between the job satisfaction and the age of employees. It can be seen from Table 16 that the significance value was greater than 0.05. According to the results of this analysis, it had been determined that the job satisfaction does not show any significant difference based on the age of employees.

Table 15

Job satisfaction and gender

	Levene's test for equality of variances		t-test for equality of means				
	F	Sig.(p)	t	df	Sig.(2-tailed)	Mean difference	Std. Error difference
Equal variances assumed	0.693	0.407	0.313	91	0.755	0.90036	2.87263
Equal variances not assumed			0.359	53.062	0.721	0.90036	2.50888

Table 16

Job satisfaction-age

	N	Mean	Std. Deviation	Std. Error	F	Sig.(p)
21 and younger	4	62.7500	12.81601	6.40800		
22-36	33	69.7273	9.62507	1.67551	0.457	0.713
37-52	45	69.9333	12.38107	1.84566		
53-71	11	70.5455	17.26478	5.20553		

Table 17 shows the difference analysis between the job satisfaction and the educational status of employees. It can be seen from Table 17 that the significance value was greater than 0.05. According to the results of this analysis, it had been determined that the job satisfaction does not show any significant difference based on the educational status of employees.

Table 17

Job satisfaction-educational status

	N	Mean	Std. Deviation	Std. Error	F	Sig.(p)
High school	55	70.6909	11.86478	1.59985		
Undergraduate	13	72.4615	10.19490	2.82756	1.405	0.247
Graduate	20	64.9500	12.15460	2.71785		
Postgraduate	5	69.2000	16.76902	7.49933		

Table 18 examines the relationship between the monthly income levels of employees and the job satisfaction. It can be observed in the Table 18 that the significance value is greater than 0.05. Accordingly, it had been determined that there was no significant difference in the job satisfaction of the employees based on their monthly income level.

Table 18

Job satisfaction-monthly income level

	N	Mean	Std. Deviation	Std. Error	F	Sig.(p)
1501-3000 TL	36	65.7451	11.42079	5.06503		
3001-4500 TL	43	69.6279	14.21271	2.16742	0.517	0.724
4501-6000 TL	11	68.3636	14.96845	4.51316		
6001 TL and more	2	69.5000	3.53553	2.50000		

In Table 19, the analysis of the different work experience of the employees in the same organization versus the job satisfaction of employees is shown. It can be seen from Table 19 that the significance value was greater than 0.05. According to the result of this analysis, the job satisfaction of the employees does not vary based on the work experience, in other words, the time spent in the organization does not affect the job satisfaction.

Table 19
Job satisfaction-work experience

	N	Mean	Std. Deviation	Std. Error	F	Sig.(p)
5 year and less	10	67.7000	10.89393	3.44496		
6-13	32	70.4375	10.73113	1.89701		
14-21	22	66.3182	11.64305	2.48231	0.940	0.423
22-29	24	70.9583	14.98254	3.05830		
30 years and more	5	76.4000	6.46529	2.89137		

VI.   RESULTS AND DISCUSSION

Today, different levels and qualities of communication occur between leaders and members, and leaders and their superiors in businesses. There are many factors affecting the quality of these communications. A leader's communication with his superiors is particularly remarkable among others. That is because the employees who become aware of their leader's good communication with superiors will feel a better sense of satisfaction from their work due to possible gains. This study, which was built on the above conceptual framework, reached the following conclusions.

According to the frequency analysis results, the 25.8% of the sample population were male and 74.2% were female. In this respect, the dominance of the female population is remarkable. With respect to the employee's ages, the number of the participants at the ages of 53 or younger is higher in the sample. It was identified that 40.9% of the participants had a graduate degree. As for employee's monthly income, 86% of the employees had a monthly income in the range of 1500 to 4500 TL. Regarding work experience, 89.2% of the employees in the sample had a work experience of over five years. The participants with these personal properties consisted of white-collar workers, because in a study they conducted, Hu et al., (2010) determined that the general job satisfaction of the white-collar personnel was higher than that of the blue-collar personnel by reasons of wage, manager and the job itself. Additionally, they indicated that the fact of the blue-collar personnel's career paths being rather limited also had effect on this dissatisfaction. Additionally, they determined that the white-collar employees had a more complex structure, as they had more knowledge and job diversity, and had more and diverse interactions with their coworkers, compared to the blue-collar personnel. As such, they indicated that this group made different comments regarding their job satisfaction. Although the blue-collar employees had a consistent knowledge due to the routine and monotonous works they did, they did not make different comments on their job satisfaction compared to the white-collar employees (Hu et al., 2010). In our study, the properties of these two groups were taken into account, and it was decided that data

were to be gathered from the white-collar employees who had increased awareness and whose interactions with the leader were higher.

The correlation analysis, regression analysis, Independent-Samples T Test and One-Way ANOVA test were used in the analysis of the data gathered from the white-collar employees. According to the results of the correlation analysis performed, a positive relationship of medium-level significance was found to exist between the job satisfaction, as the dependent variables, and the Pelz effect as the independent variable. Additionally, a positive relationship of medium-level significance was found to also exist between the leader-member exchange, as the moderator variable, and the Pelz effect as the independent variable of the research.

According to the result of the regression analysis, it was determined that leader-member exchange had a partial moderator effect on the relationship between the Pelz effect and job satisfaction.

According to the independent-samples t-test results, the employee's job satisfaction levels do not show a significant difference with respect to gender. And according to the results of the one-way ANOVA test, job satisfaction does not show a significant difference with respect to employee age, educational status, monthly income, and work experience.

A review of the literature reveals that there is research emphasizing the effect of leader-member exchange on job satisfaction. However, there is no study emphasizing that the Pelz effect has also effect on leader-member exchange and job satisfaction. From this perspective, this study is the first one in the field, and original in this regard. Previously, many researchers who conducted research on this subject remarked that a leader-member exchange had an effect on the employee's job satisfaction. Hence, the literature provides support for only the result, which suggests that leader-member exchange affects job satisfaction. As there is no previous research on this subject that considered the Pelz effect dimension, a compare could not be performed to see whether the results find not a by literature supported. However, it was mentioned above that there is a large body of research that evidenced that leader-member exchange influenced job satisfaction.

One of those studies was conducted by Cinel and Özdaşlı (2017) on hazelnut enterprises operating in the city of Ordu, Turkey. Cinel and Özdaşlı found that positive leader-member exchange increased the level of employees' job satisfaction. In a study conducted with 266 participants working in the commercial banking sector in non-management positions in the cities of Ankara, İstanbul, İzmir, Malatya, Manisa and Adana, Eryılmaz et al. (2017) proved that a moderate and statistically significant relationship between leader-member exchange, including its sub-dimensions, job satisfaction. In one of her studies, Özutku (2007) found a positive and significant relationship between the quality level of superior-subordinate exchange and the dimensions of subordinates' job satisfaction. In another study conducted with 153 administrative staff working at Hitit University, Demirer et al. (2017) identified that leader-member exchange played a mediating role on job and life satisfaction. Gökalp et al. (2015) observed in a study conducted with teachers working at high schools in the city of Mersin that leader-member exchange between head teachers and teachers significantly affected teachers' job satisfaction.

This study aims to give a message to both the managers and the owners of companies, saying that they need to employ managers who have good skills in developing

communication, with both the top management and the employees, to increase the productivity of their company. In addition, it is aimed at giving a message to the managers that they need to develop good communication with both the top management and the employees to increase their own performance and productivity.

In order to survive and succeed in today's extremely competitive business world, the organizations need to efficiently benefit from the human resources they have. In order to efficiently benefit from human resources they have, the managers need to develop good relationship with their subordinates and superiors. Levels of job satisfaction increase when employees see a strong leader who has established good relationship with them.

Considering that the working conditions will change rapidly in the future, it is foreseen that there would also be changes in the parameters, which affect employees' job satisfaction. For this reason, the specialists who are going to do research on this subject in the future are advised to investigate the new factors that affect employees' job satisfaction level resulting from new working conditions.

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