Mediating Effect of Organizational Identification on the Relationship between Leader-Member Exchange and Organizational Commitment among Primary School Teachers

Müzeyyen Petek DİNÇMAN

Abstract

The aim of this research in correlational survey model is testing the mediating effect of organizational identification on the relationship between leader-member exchange and organizational commitment by the use of structural equation model. The study group of the research consists of 391 teachers working at 21 different primary schools in Çankaya province of Ankara and selected by simple random sampling method. Data of the study was obtained by using Leader-Member Exchange Scale (LMXS), Organizational Identification Scale (OIS) and Organizational Commitment Scale (OCS). In the research descriptive analyses (mean, standard deviation, ratio and frequency), Pearson product-moment correlation, single factorial CFA, first-order CFA were carried out and for mediating analysis structural equation model (SEM) was used. The results revealed that the level of leader-member exchange is “Very high”, organizational commitment is “Medium” and Organizational identification is “High”. According to Pearson product-moment correlation analysis, significant positive relationships were found between variables. The results of path analysis also showed that in the relationship between leader-member exchange and organizational commitment, organizational identification has “partial mediating” effect. A number of suggestions have been offered to practitioners and researchers in line with the results obtained from the research.

Key Words: leader-member exchange, organizational identification, organizational commitment, mediating effect, structural equation model

Corresponding author:

Müzeyyen Petek DİNÇMAN
School of Foreign Languages, Hacettepe University, Ankara, Turkey
E-mail: mpdicman@gmail.com
Orcid: https://orcid.org/0000-0003-0945-2639
Introduction

Traditional leadership approaches assume that the exchange between the leader and the followers is similar. However, there have been changes in traditional understanding emphasizing that the leader is the same with all his followers in terms exchange (Graen & Uhl-Bien, 1995; Robbins & Judge, 2012). Unlike traditional way, in new leadership understanding the idea has become dominant that the interaction between the leader and the members is not the same with every employee. For this reason, the phenomenon of leadership can vary according to the place, community and time that one belongs to (Erçetin, 2000). Leader-member exchange has emerged as a natural result of a change in these understandings (Graen & Uhl-Bien, 1995; Lunenberg, 2010).

Leader-Member Exchange

Leader-member exchange refers to the quality of the relationship or interaction taking place between the leader and the employee, the development of this relationship over time, the leader’s behaving differently and specifically towards each employee (Javaheri, Safarnia & Mollahosseini, 2013; Stroh, Northcraft & Neale, 2002; Yukl, 2006). The exchange may be at a high or low level between the leader and the member. Yet the basic basis of the interaction is that the leader and the member respect each other's competencies or trust each other (Scheroemrhorn, Hunt, Osborn & Uhl-Bien, 2010). Within this respect, the leader-member exchange emphasizes not only the interaction between the leader and the member, but also the behaviour of the leader, the respect and loyalty that occurs beyond the formal relationship between the leader and the member (Wang, Law, Hackett, Wang & Chen, 2005; Yu & Liang, 2004).

Leader-member exchange is examined in two categories under the headings of "in-group and out-group". In-group is the group with which the leader builds very close relationships for different purposes and where informal interaction is intense, out-group, on the other hand, refers to the group in which the interaction with the leader takes place according to the rules and official policies (Aggarwal, Chand, Jhamb & Mittal, 2020; Gottfredson, Wright, & Heaphy, 2020; Graen ve Uhl-Bien, 1995; Liden, Sparrow & Wayne, 1997). Leader-member exchange may appear in the form of out-group membership role with intense procedures and rules or in the form of in-group membership role based on support, collaboration and trust (Erçetin & Özkan, 2016). Therefore, leader-member exchange occurs in the form of either informal or formal relationships (Erçetin, 1993). However, the exchange between the leader and member is based on some theoretical bases without distinction between in-group and out-group. “Role Theory, Social Exchange Theory, Equity Theory and the Theory of Justice” are among the best known of these theories. Role theory includes the jobs and behaviours that employees of the organization are expected to do or not to do according to their status in the organization. That is, in role theory, the positions of employees in the organization are determinant in leader-member interaction (Maslyn & Uhl-Bien, 2001). In social exchange theory, the interaction between leader and member is based on the expectation of mutual benefit. When one party acts relevantly to another party, they think they will get a respond to this behaviour. Both parties interacting expect rewards, and leader-member exchange takes place on the reward-punishment line. Thus, leader and member interaction is shaped on the basis of meeting the interests (Hollander, 2012; Öztürk & Eryeşil, 2016). Equity theory is that the ratio between what a member of the organization gives and what they receive is equal to the ratio between what other members of the organization give and receive. As the principle of equality is achieved, leader-member interaction increases; and leader-member interaction decreases as the principle of equality is damaged (Scandura, 1999). And the theory of justice highlights that the distribution of resources, decisions and practices within the organization should be shaped by the leader according to the principle of equity. As
the leader demonstrates fair behaviour, leader-member interaction increases as well (Hubbel & Chory-Assad, 2005).

Researchers have taken a multi-dimensional and holistic approach to leader-member exchange in order to describe the leader-member interaction better (Kang & Stewart, 2006; Liden & Maslyn, 1998). Multi-dimensional structure of the leader-member exchange consists of "contribution, loyalty (commitment), influence and professional respect" dimensions. Contribution dimension is the quality of the work each employee does. The quality of the work is the level of opportunities provided by the leader for these jobs and the effort shown by the employee apart from the job descriptions. Members who receive more contributions, support and resources from the leader have higher interactions with the leader and higher job performance (Liden & Masly, 1998). Loyalty (commitment) dimension is related with the leader and member being connected to each other. This connectedness to each other has a positive effect on leader-member exchange (Arslantaş, 2007). Setley (2005) states that an employee can demonstrate loyalty to the leader by performing more in the organization. Influence dimension is related with personal feelings and interpersonal interactions between leader and member, not job-related perceptions. Leader's sympathy and attractiveness drive leader-member interaction (Sullivan, Mitchell & Uhl-Bien, 2003). Finally professional respect dimension refers to the "professional reputation" gained by each employee in the organization in leader-member interaction. The employee or leader interacts to benefit from each other's existing experiences and knowledge (Erdem, 2008). According to Liden & Maslyn (1998) employees in the organization states that the leader’s having positive professionalism perceptions about themselves returns to the organization as a high performance.

The main reason why leader-member interaction is important is that leader-member exchange is related to many organizational variables. In another saying, leader-member exchange can be effective on a great number of organizational variables. In the literature, there are several studies proving that leader-member exchange has effects on organizational variables as work performance (Tran, Lee, Nguyen & Srisuttitrakul, 2020; Cevrioglu, 2007; Liden, Wayne & Stidwell, 1993), cynical behaviour (Mumcu, 2018), intention to leave work (Krishnan, 2005; Micheal, 2012), subjective well-being (Cheung & Wu, 2013), work satisfaction (Volmer, Niessen, Spurk, Linz & Abele, 2011), organizational citizenship (Teng, Lu, Huang & Fang, 2020; Anand, Vidyarthi & Rolnicki, 2018; Gestner & Day, 1997), collective competence (Arankan & Caliskan, 2013), and organizational commitment (Keskes, Sallan, Simo & Fernandez, 2018; Sivik, 2018). In this context, that one of the organizational variables on which leader-member interaction can be effective is organizational commitment may be claimed. Moreover, determination of positive relationships between leader-member exchange and organizational commitment (Nystrom, 1990; Schriesheim, Neider, Scandura & Tepper, 1992; Schyns, Paul, Mohr & Blank, 2005; Sherony & Green, 2002; Ülker, 2015, Keskes, Sallan, Simo & Fernandez, 2018; Park & Ryu, 2018; Jung, Song & Yoon, 2021) increased interest towards the relationship between leader-member exchange and organizational commitment.

**Organizational Commitment**

Organizational commitment is defined as a perception of an employee towards his/her attachment to the organization that she/he is working for (Bayram, 2005). From one aspect, it includes positive attitudes and feelings for the organization (Riggio, 2014). In other words, organizational commitment is employees' involvement in the organization and having strong relations with the organization (Klinsontorn, 2005). In the light of these definitions it can be stated that organizational commitment appear as “internalizing organizational goals, minding
organizational interests, making efforts for the organization and feeling a strong desire for the organization” (Joo, 2010; Song, Hong and Kolb, 2009).

Definitions of organizational commitment emphasize that it should be considered with many different approaches as sociological, psychological and behavioural (Yorgancioğlu Tarcan, Yeşilaydm & Karahan, 2019). In this framework, Meyer and Allen (1991) examined organizational commitment under the headings of “affective commitment, continuing commitment and normative commitment”. Affective commitment means employees to be committed to the organization and integrated with the most sincere feelings. The most desired commitment type is affective commitment because when employees establish an affectional bond with their organization, it makes them love the organization they work for (Love, 2013; Wasti, 2002). Within continuing commitment, employees decide to stay in the organization, thinking that the costs will be high if they leave the organization (Allen & Meyer, 1990). Having continuing commitment, workers think that they will lose moral and material gains if they leave the organization (Obeng & Ugboro, 2003). Normative commitment, which is another commitment type, is about the employees feeling themselves responsible and (or) obligated to the organization. The ones having high level of normative commitment perceive staying in their organization as a morally necessary and correct decision. Normative commitment is caused by employees’ feeling indebted to the organization (Stephens, 2004). According to Balay (2000), these three commitment types prevent employees from leaving the organization. In all three types of commitment, employees continue to stay in the organization, but in affectional commitment, the decision to stay in the organization is based on the will, in continuation commitment it is based on the obligation and necessity, and in normative commitment, it is based on the responsibility towards the organization (Balay, 2000).

Organizational commitment creates important consequences for the organization. Having attachment to the organization allows workers to increase their own work efficiency. Organizational commitment may be determinant for some variables such as organizational performance, stress, labour turnover, intention to leave, and job satisfaction (Suliman, 2002; Takase, Maude & Manias, 2005). In the literature, the relatively high number of empirical studies revealing its relationship with organizational variables like job satisfaction (Beery, 2012; Sığrı & Basım, 2004; Derin, 2019; Top, 2012), organizational cynicism (Barnes, 2010; Bernerth, Armenakis, Feild & Waker, 2007; Çınar, 2019; Yıldız, 2013), organizational justice (Yılmaz, 2012), intention to stay (Bayraktar, 2019; Demir, 2015; Wei-Su, 2014), communication competence (Erbaş, 2008; Taşlıyan ve Hırlak, 2014), organizational silence (Ünsal, 2019), alienation from work (Çilesiz, 2014), organizational trust (Demirel, 2008; Straiter, 2004) and organizational citizenship (Cohen, 2006; Doğrul, 2013); points out that organizational commitment is an important organizational variable. The main reason why it is considered important and effective by organizations is that individuals with a high sense of commitment participate more in organizational activities and demonstrate behaviours that are not included in their job descriptions. Thus, the organizations make efforts to keep individuals with high commitment in the organization (Brimeyer, Perrucci & MacDermid Wadsworth, 2010; Bozkurt & Yurt, 2013; Sergeant & Frenkel, 2000). The individuals who prefer to stay in the organization are expected to have organization identification. Naturally, it is thought that there should be a close relationship between organizational identification and organizational commitment. In other words, organizational identification can be considered as one of the basic indicators of organizational commitment.

Organizational Identification

Organizational identification means members of the organization to internalize themselves with the organization and see themselves as the representatives of it (Mael &
Ashforth, 1995). It is also defined as individuals perceive themselves as a part of the organization and integrate with organizational goals (Scott & Lane, 2000). And in another definition, organizational identification means that members of the organization being in solidarity with the organization, supporting the organization and impersonating themselves with the organization (Miller, Allen, Casey & Johnson, 2000). The definitions point out that organizational identification is a two-way phenomenon and emphasizes a cognitive and affectional relationship with the organization (İşcan, 2006). Organizational identification occurs when individuals establish a relationship between themselves and a value-oriented identity (Larson & Pepper, 2003). This relationship between the individual and the value-oriented identity made it necessary to explain the basic theoretical structure of organizational identification with "Social Identity Theory" (Van Dick, 2001).

Social Identity Theory emerged as a theory of social psychology in the mid-1970s. It is a theory aiming to explain how the social identity of individuals occurs when interacting with the group or in the group, and how it affects the attitudes and behaviours of the individual (Demirtaş, 2003; Karayiğit, 2008). Identification constitutes the essence of Social Identity Theory and claims that self-esteem consists of “personal identity and social identity” components. Personal identity means discriminating an individual from others, interests and abilities shaping him/her; on the other hand social identity includes structural features consisting of certain classifications such as religion, education, and culture (Bhattacharya, Rao & Glyn, 1995). In social identity the individual feels that he/she belongs to a group and acts for the expectations of that group. The main reason why they include themselves in a social classification is being able to easily identify themselves within a social group and determine their position accordingly (Ashforth & Mael, 1989; Mael & Ashforth, 1992). According to Social Identity Theory, the individual makes special effort to join a social group that is suitable for his or her personal characteristics and can increase his respectability (Saruhan, 2007).

Another theory that constitutes theoretical background of organizational identification is “Self-Categorization Theory”. Self-Categorization Theory is an extension of Social Identity Theory and both theories have almost the same hypotheses (Hornsey, 2008). According to the Self-Categorization Theory, individuals categorize themselves at different levels and degrees. The fact that people see themselves as members of the same social group enables identification with the social group (Van Dick & Wagner, 2002). Besides, in Self-Categorization Theory, the individual perceives oneself in the “higher level as human, lower level as individual, or intermediate level as member of social group”. In this way, the indevotional’ perception of categorization appears as a natural consequence of identification and specification (Honsey, 2008).

Organizational identification, as a pre-condition for organizational commitment, plays an important role for employees to build high level of affection with their organizations and increase their productivity within the organization (Brown, 2017; Kreiner & Ashforth, 2004). Just as organizational commitment, organizational identification contributes to organizational support, performance, productivity, organizational citizenship and the person-organization fit (Dirin, 2014; Riketta & Van Dick, 2005). The existence of studies in the literature showing that it is related to organizational variables such as organizational citizenship (Teng, Lu, Huang & Fang, 2020; Feather & Rauter, 2004; Karabey, 2005; Tokgöz, 2012), social responsibility (Allen, Attoh & Gong, 2017; Glavas & Godwin, 2013; Mustafeyeva, 2007), organizational justice (Ting & Ho, 2017; Cheung & Law, 2008), organizational trust (Jiang, Gollan & Brooks, 2017; Kanten, 2012), organizational socialization (Aliyev, 2014; Saruhan, 2017), job performance (Tran, Lee, Nguyen & Srisittratkul, 2020; Carmeli, 2005; Riketta, 2005), intention to leave (Moloney, Boxall, Parsons & Cheung, 2018; Tyler, 1999), job satisfaction (Çırakoğlu, 2010), organizational culture (Leblebici, 2016; Sune, 2016),
organizational image (Bergami & Bagozzi, 2000; Karabey & İşcan, 2007; Smidts, Pruyn & Van Riel, 2001), organizational cynicism (Polat ve Meydan, 2010), organizational communication (Bartel & Dutton, 2000), and burnout (Avanzi, Fraccaroli, Castelli, Marcionetti, Crescentini, Balducci & van Dick, 2018; Wegge, Dick, Fisher, Wecking & Moltzen, 2006) shows that organizational identification is an important variable in the emergence of organizational results. Similarly, the fact that one of the variables that organizational identification is effective on is organizational commitment (George, Aboobaker & Edward, 2020; Nazir & İslam, 2017; Karayiğit, 2008; Knippenberg & Sleebos, 2006; Riketta, 2005) can also point to the mediating effect of organizational identification in the relationship between leader-member exchange and organizational commitment. Thus, it is thought that organizational identification can be a variable which is able to affect the relationship between leader-member exchange and organizational commitment.

As seen clearly, understanding how organizational identification is effective in the relationship between leader-member exchange and organizational commitment can provide significant insights to organizations. Especially in the context of educational institutions, knowing how the interaction between school principals and teachers will be shaped by the impact of organizational identification can provide important clues to schools and stakeholders. While the level of leader-member interaction in schools may differ in enabling teachers and other employees to show their different skills and increase their effectiveness within the organization. Leader-member interaction at a reasonable level will affect positively teachers' taking an active role in activities and showing high performance. In this context, it is aimed to determine the relationships between variables and to develop suggestions in line with the findings to be obtained and to contribute to the relevant literature.

This research may contribute to the literature trying to find out the relationship within the leader-member interaction, organizational identification and organizational commitment in schools that are the primary educational organizations. With empirical findings, it is hoped that the research results will provide important and meaningful suggestions to junior, middle level and top executive education administrators. Besides, another reason for this study to be regarded as important is that the relationship between these three concepts (leader-member exchange, organizational identification and organizational commitment) is examined with structural equation modeling.

**Aim of the Study**

The main aim of this research is to study the relationship between leader-member exchange, organizational identification and organizational commitment in terms of teachers’ perceptions. In line with this main purpose, the following research questions were tried to be answered:
**Figure 1.** The Conceptual Framework of the Study (*LMX*: Leader-Member Exchange; *OI*: Organizational Identification; *OC*: Organizational Commitment)

1. What is the level of teachers’ perceptions about leader-member interaction, organizational identification, and organizational commitment?
2. Is there a significant relationship between leader-member exchange, organizational identification and organizational commitment?
3. Is there a mediating effect of organizational identification in the relationship between leader-member interaction and organizational commitment?

**Method**

**Research Model**

This research, which is aiming to examine the relationship between leader-member exchange, organizational identification and organizational commitment, is designed in correlational survey model. Correlational survey model is a research model that predicts the relationship between two or more variables (Fraenkel & Wallen, 2006). The relationships between the variables of the study were examined using the Structural Equation Model (SEM) in accordance with the correlational survey model. Research model is shown in Figure 1.

**Study Group**

Study group of the research consists of 391 teachers working at 21 different primary schools in Çankaya province of Ankara in 2019-2020 academic year and selected by the simple random sampling method which is one of the probabilistic sampling methods (Potas & Açıll Ok, 2020). Of the teachers 233 (59.6%) were women, 158 (40.4%) were men; 67 (17.1%) had 1-9 years, 144 (36.8%) had 10-19 years, 150 (38.4) had 20-29 years, and 30 (7.7%) had 30 and more years of professional seniority. By education level, number of teachers with associate degree were 10 (2.6%), licence degree were 345 (98.2%), and postgraduate degree were 36 (9.2%). In addition, it was found that 158 (40.4%) of the teachers worked with the school principal for 1-2 years, 196 (50.1%) for 3-4 years, and 37 (9.5%) for 5 years or more.

**Data Collection Tool**

In this research “Leader-Member Exchange Scale (LMXS), Organizational Identification Scale (OIS) and Organizational Commitment Scale (OCS)” were used. Before the scale questions, a "Personal Information Form" was prepared in order to determine the demographic characteristics of the participants (gender, professional seniority, education level and working time with the school principal).

LMXS was developed by Liden and Maslyn (1998). The scale, adapted into Turkish by Öztürk (2015), has 4 sub-dimensions and a total of 12 items. Each of the "affection, contribution, loyalty and professional respect" dimensions of LMXS is represented by 3 questions on the scale. According to the first-order confirmatory factor analysis (CFA) within the scope of construct validity studies, it shows that the resulting goodness of fit of the scale ($\chi^2/df = 139.87/48 = 2.91 < 4$; RMSEA = .083, SRMR=0.38, RFI=.96, CFI=.98, NNFI=.97, NFI=.97, AGFI=.85, GFI=.90) fit well with the research data. As a result of the Turkish adaptation of LMXS, Cronbach Alpha reliability coefficient was .89 in affection dimension, .84 in contribution dimension, .89 in loyalty dimension and .94 in professional respect dimension (Öztürk, 2015).

OIS was originally developed by Mael and Ashforth (1992). The scale, adapted to Turkish by Tak and Aydemir (2004), is one-dimensional and consists of 6 items. According to their explanatory factor analysis, Tak and Aydemir found out that the scale items were
gathered under one dimension and item factor loads ranged between .79 and .87. While total variance of the scale was 37%, Cronbach Alpha reliability coefficient was found as .88.

OCS, developed by Meyer and Allen (1997) and adapted into Turkish by Dilek (2005), consists of 3 sub-dimensions and 16 items. There are 7 items in affective commitment dimension, 5 items in continuance commitment dimension and 4 items in normative commitment dimension. Cronbach Alpha reliability coefficient of the scale was .90 in affective commitment dimension, .84 in continuance commitment dimension and .81 in normative commitment dimension (Dilek, 2005).

CFA goodness-of-fit indices generally accepted in the literature were taken into consideration. In this direction, it has been stated in the literature that the fit should generally as the following: $\chi^2/\text{sd}$ ratio smaller than 4, RMSEA and RMR values smaller than .08, NFI, NNFI, IFI, RFI values .90 and over, CFI value .95 and over AGFI and GFI values .85 and over (Brown, 2006; Kline, 2011; Meydan & Şeşen, 2011; Seçer, 2013; Wang & Wang, 2012). According to Table 1, it was revealed that the LMXS, OIS and OCS are a psychometrically appropriate measurement tool for the current study in Table 1.

Table 1. Results of Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA)

<table>
<thead>
<tr>
<th>Scales</th>
<th>LMX</th>
<th>OI</th>
<th>OC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>12</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>Sub-dimensions</td>
<td>4</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>.940</td>
<td>.920</td>
<td>.800</td>
</tr>
<tr>
<td>Cronbach’s Alpha of Sub-dimensions</td>
<td>.780-900</td>
<td>-</td>
<td>.700-.740</td>
</tr>
<tr>
<td>NFI</td>
<td>.960</td>
<td>.980</td>
<td>.920</td>
</tr>
<tr>
<td>RFI</td>
<td>.940</td>
<td>.970</td>
<td>.910</td>
</tr>
<tr>
<td>CFI</td>
<td>.970</td>
<td>.990</td>
<td>.950</td>
</tr>
<tr>
<td>TLI</td>
<td>.960</td>
<td>.940</td>
<td>.940</td>
</tr>
<tr>
<td>AGFI</td>
<td>.890</td>
<td>.940</td>
<td>.880</td>
</tr>
<tr>
<td>GFI</td>
<td>.940</td>
<td>.980</td>
<td>.910</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.082</td>
<td>.076</td>
<td>.069</td>
</tr>
<tr>
<td>$\chi^2/\text{sd}$</td>
<td>3.62</td>
<td>3.24</td>
<td>2.87</td>
</tr>
</tbody>
</table>

(LMX: Leader-Member Exchange; OI: Organizational Identification; OC: Organizational Commitment)

The scales used in this research (LMXS, OIS and OCS) were answered on a 5-point Likert-type scale ranging from "Strongly Disagree" (1) to Strongly Agree (5) " . High or low scores from the scales indicate whether the participant’s level of agreement with the relevant scale is high or low. Additionally, the level of agreement of the participants in the answers given to the scale is "1.00-1.80; Fairly low, 1.81-2.60; Low, 2.61-3.40; Medium High, 3.41-4.20; High, 4.21-5.00; Rather High”.

Analyses of the Data and the Processes

Data was collected by the researchers visiting the schools. The teachers were informed about the aims of the research and the points to be considered in filling the scales between the breaks. The teachers were informed about the aims of the research and the aspects to be considered in filling the scales in break times. The sessions to answer the scales took approximately 18 minutes for each participant. The scales were collected by the researcher two weeks after they were distributed. 460 scales were distributes but the number of the collected scales was 416.
The data collected was examined for suitability for SEM. For this reason, the items that were left blank in the scale were replaced by the EM algorithm (Expectation-maximization algorithm). After the assignments were made to the missing data, the extreme values of the data were examined. The scores of the scales were converted to Z points, and 25 data that were not between -3 and +3 and the Mahalanobis distance was not appropriate were removed from the scale. After removing the extreme values from the scales, the Skewness and Kurtosis values of the total scores of the data belonging to 391 teachers were examined. Skewness values of the research were between $-1.185$ and $-1.132$ and Kurtosis values were found between $.366$ and $1.390$. That the Skewness and Kurtosis values were between $-1.5$ and $+1.5$, it was clearly understood that the data showed a normal distribution (Tabachnick & Fidell, 2013). In order to determine whether there is a multicollinearity problem in the study, different values were taken into consideration. That the correlation coefficients between variables are less than $.90$, Durbin-Watson value is $1.771$, Tolerance value is $.401$, VIF value is $2.491$, CI value is $21.409$ and $11.531$ means there is no multiple linearity problem and no autocorrelation problem (Çokluk, Şekercioğlu & Büyüköztürk, 2010; Green & Salkind, 2010).

These values show that the data met all the assumptions required for the analysis. The data analysis of the study was done through SPSS 21.00 and AMOS 24.00 package programs; for descriptive analyses, Pearson product-moments correlation, one-factor CFA, first-order CFA and mediation analysis SEM was used. In order to check whether the mediating effect was significant or not, the bootstrap coefficient and confidence intervals were calculated. All tests in the study was evaluated at $\alpha = 0.05$ error level.

Findings

Findings of Descriptive Analyses and Correlations

Descriptive statistics (arithmetic mean, standard deviation) of the variables of the research “Leader-member exchange, organizational identification and organizational commitment” and correlations between variables are demonstrated in Table 2.

Table 2. Descriptive Statistics and Correlation Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>$\bar{x}$</th>
<th>Sd</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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</thead>
<tbody>
<tr>
<td>1. LMX</td>
<td>4.41</td>
<td>0.68</td>
<td>1</td>
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<td></td>
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<td></td>
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<tr>
<td>2. Affection</td>
<td>4.54</td>
<td>0.60</td>
<td>.87**</td>
<td>1</td>
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<tr>
<td>3. Contribution</td>
<td>4.43</td>
<td>0.76</td>
<td>.85**</td>
<td>.80**</td>
<td>1</td>
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<tr>
<td>4. Loyalty</td>
<td>4.40</td>
<td>0.79</td>
<td>.86**</td>
<td>.74**</td>
<td>.79**</td>
<td>1</td>
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<tr>
<td>5. Professional</td>
<td>4.23</td>
<td>0.90</td>
<td>.88**</td>
<td>.65**</td>
<td>.67**</td>
<td>.78**</td>
<td>1</td>
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<tr>
<td>Respect</td>
<td></td>
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<tr>
<td>6. OI</td>
<td>4.17</td>
<td>0.89</td>
<td>.77**</td>
<td>.67**</td>
<td>.63**</td>
<td>.69**</td>
<td>.76**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. OC</td>
<td>3.33</td>
<td>0.54</td>
<td>.62**</td>
<td>.59**</td>
<td>.54**</td>
<td>.51**</td>
<td>.59**</td>
<td>.67**</td>
<td>1</td>
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<tr>
<td>8. Affective</td>
<td>3.77</td>
<td>0.67</td>
<td>.69**</td>
<td>.66**</td>
<td>.59**</td>
<td>.58**</td>
<td>.65**</td>
<td>.78**</td>
<td>.82**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Continuance</td>
<td>2.12</td>
<td>0.71</td>
<td>.10</td>
<td>.08</td>
<td>.09</td>
<td>.09</td>
<td>.10</td>
<td>.07</td>
<td>.57**</td>
<td>.14**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>10. Normative</td>
<td>4.08</td>
<td>0.85</td>
<td>.52**</td>
<td>.51**</td>
<td>.45**</td>
<td>.41**</td>
<td>.50**</td>
<td>.54**</td>
<td>.79**</td>
<td>.56**</td>
<td>.21**</td>
<td>1</td>
</tr>
</tbody>
</table>

Not: $^* p < .05$; $^{**} p < .01$; $n = 391$ (LMX: Leader-Member Exchange; OI: Organizational Identification; OC: Organizational Commitment)

As seen in Table 2, the scores of teachers for leader-member exchange are in the level of “rather high” ($\bar{x} = 4.41$; Sd$= 0.68$). While the scores for organizational identification are “high” ($\bar{x} = 4.17$; Sd$= 0.89$), organizational commitment scores are “medium high” ($\bar{x} = 3.33$;
Results of Regression Analysis

In order to prove the mediating role of organizational identification in the relationship between leader-member exchange and organizational commitment, analyses were made according to the assumptions proposed by Baron and Kenny (1986). Accordingly, in mediation test, the independent variable on the mediator and dependent variable; mediator variable is also expected to have a significant effect on the dependent variable. If the effect that was significant initially between the independent and dependent variable, turns into a non-significant effect when mediator variable was included in regression, this can be expressed as "full mediation" effect; however, if there is a decrease in the effect of the independent variable on the dependent variable, the "partial mediation" effect can be mentioned (Howell, 2013; McKinnon, Fairchild & Fritz, 2010). Therefore, simple regression analysis was carried out to determine whether the assumptions about mediation testing are met and also to see the direct effects. Simple regression analysis results of the research and structural pathways between variables are demonstrated in Table 3.

Table 3. Simple Regression Analysis and Structural Paths for Research

<table>
<thead>
<tr>
<th>Independent (Predictive) Variable</th>
<th>Structural Paths</th>
<th>Dependent (Predicted) Variable</th>
<th>( \beta )</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader-Member Exchange (LMX)</td>
<td>Organizational Identification (OI)</td>
<td>.77</td>
<td>24.085</td>
<td>.000*</td>
<td></td>
</tr>
<tr>
<td>(Direct Effect)</td>
<td>R = .774</td>
<td>R² = .599</td>
<td>F (1;389) = 580.109</td>
<td>p = .000*</td>
<td></td>
</tr>
<tr>
<td>Organizational Identification (OI)</td>
<td>Organizational Commitment (OC)</td>
<td>.67</td>
<td>18.004</td>
<td>.000*</td>
<td></td>
</tr>
<tr>
<td>(Direct Effect)</td>
<td>R = .674</td>
<td>R² = .455</td>
<td>F (1;389) = 324.129</td>
<td>p = .000*</td>
<td></td>
</tr>
<tr>
<td>Leader-Member Exchange (LMX)</td>
<td>Organizational Commitment (OC)</td>
<td>.62</td>
<td>15.873</td>
<td>.000*</td>
<td></td>
</tr>
<tr>
<td>(Direct Effect)</td>
<td>R = .627</td>
<td>R² = .393</td>
<td>F (1;389) = 251.941</td>
<td>p = .000*</td>
<td></td>
</tr>
</tbody>
</table>

*p < .01; n = 391

As it can be interpreted in Table 3, leader-member exchange has a significant effect on organizational identification \( (\beta = .77; p < .001) \) and organizational commitment \( (\beta = .62; p < .001) \). Furthermore, organizational commitment has a significant effect on organization commitment \( (\beta = .67; p < .001) \). Consequently, results of simple regression analysis between variables indicate that the assumptions of the mediation test are met.

Findings of Path Analysis

Path analysis was carried out to reveal the mediating role of organizational identification in the relationship between leader-member exchange and organizational commitment. Figure 2 shows the results of path analysis. (LMXS: Leader-Member Exchange Scale, AFFTN: Affection dimension, CNTB: Contribution dimension, LOYAL: Loyalty dimension, RESP: Professional Respect dimension. OIS: Organizational Identification Scale. OCS: Organizational Commitment Scale, AFFTV: Affective commitment dimension, CONT: Continuance commitment dimension, NOR: Normative commitment dimension).
Based on Table 3 and Figure 2, in results of the path analysis carried out to reveal the mediating effect of organizational identification, when organizational identification included into the research model, it was determined that the effect of leader-member exchange on organizational commitment decreased from (see Table 3, $\beta = .62$, $p < .001$) to (see Figure 2, $\beta = .23$, $p < .001$). According to path analysis, it is seen that although the effect of leader-member exchange on organizational commitment decreases, it does not lose its predictive feature.

Please insert all related figures in the text.

Figure 2. Path Diagram (LMX: Leader-Member Exchange, AFFTN: Affection, CNTB: Contribution, LOYAL: Loyalty, RESP: Professional Respect; OI: Organizational Identification; OC: Organizational Commitment, AFFTV: Affective, CONT: Continuance, NOR: Normative)
When all analyses to be considered together, it can be stated that leader-member exchange has a direct effect on organizational commitment, and has an indirect effect through organizational identification. In other words, the partial mediating role of organizational identification between leader-member exchange and organizational commitment can be mentioned. Similarly, goodness of fit of path analysis ($\chi^2/\text{sd} = 1568.694/514 = 2.935 < 4$; RMSEA = 0.070, RMR = 0.061, IFI = 0.91, CFI = 0.90, TLI = 0.90) can be interpreted as the research supports the theoretical model (Brown, 2006; Kline, 2011). Additionally, in order to decide whether the indirect effect was significant in the research, the confidence intervals obtained by the Bootstrap method and the percentage technique were also examined. In Bootstrap mediating effect analysis, the value at 95% confidence interval (CI) should not contain zero value (Gürbüz, 2019; Preacher & Hayes, 2008). According to the Bootstrap analysis, since through organizational identification, the effect of leader-member interaction on organizational commitment does not include zero, it can be said that the mediating effect is significant. [$\beta = .23$, %95 GA (.397 - .721)].

**Discussion, Results and Suggestions**

**Results and Discussion**

The data of this research, aiming to reveal the mediating effect of organizational identification on the relationship between leader-member exchange and organizational commitment, were collected through the views of 391 teachers working at 21 different primary schools in Çankaya province of Ankara. In this context, research data was analysed with descriptive analyses and structural equation model.

In the research, it was found that the perceptions of participants about the leader-member exchange, were at "rather high" level in the LMXS and in all sub-dimensions. This can be evaluated as teachers have exchange with school principals, they have friendly connections with the principals, appreciate school principals in terms of professional skills and are ready to do jobs by the job description for principals. This finding in the current research, conforms to the findings of other studies on leader-member exchange in the literature (Karcıoğlu & Kahya, 2011). However, when the literature is reviewed, it is possible to see some studies which show the leader-member exchange as “high” (Akkaya, 2015; Cevrioğlu, 2007; Gökgöz, 2016; Sivik, 2018; Ülker, 2015) or “medium” level (Eryılmaz, 2017; Öztürk, 2015). Thus, it is understood that this research’s finding that the leader-member exchange is “rather high” is both supported and not supported by the literature. That the leader-member exchange is revealed in different levels in the literature, is thought to be related to the dominant organizational structure in the organizations or the management understanding of the managers where the researches were conducted. Since communication level can be rather limited with those who work in a strict, authoritarian and mechanical management approach. Therefore, that the leader-member exchange is found “rather high” in this research can be regarded as an opportunity for the development and change of schools.

The findings of the research revealed that organizational identification level of teachers are “high”. There are numerous researches in the literature showing the organizational identification level of participants as “high” (Çetinkaya & Çimenci, 2014; Karabey & İşcan, 2007; Kreinerve & Ashforth, 2004; Özdemir, 2013; Saruhan, 2017; Şahin, 2014; Yılmaz, 2014). This finding of the current research is both supported by the literature, and it can also be interpreted as a promising result. For that the organizational commitment level is high may indicate that teachers internalize the goals of the schools they work in, they have sense of ownership towards the school, they make an effort to prevent damage to the school and that they are integrated with the school. Besides, that the organizational
commitment level is high can also be explained by the fact that the participants have a long service period in the schools they work. That is, the increase in teachers' service time at their schools may have contributed to the increase in their level of identification with schools.

According to the findings, teachers’ organizational commitment level is usually “medium high”. However, the affective and normative commitment sub-dimensions are “high” and continuance commitment dimension is “low” can be seen as a gratifying result. Since, in the literature, the dimensions of commitment that are desired to be the highest are affective commitment, normative commitment and continuation commitment, respectively (Brown, 2003) and this finding of the current research is supported by the literature (Erdem, 2008; Özkan, 2005; Yüceler, 2009; Zeren, 2007). Accordingly, it can be asserted that teacher’s commitment for their schools occurred in line with responsibility and duty awareness rather than benefit-oriented. Also, that the teacher’s commitment for their schools is “high” in affective commitment dimension, can be expressed as an indicator of the importance to the school they give and their true ownership of the school. In a way it can be stated that the teachers have commitment to their schools as desired. The research made it possible to think that the organizational identification level to be “high” caused the affective commitment to be “high” as well. Thus, in terms of the meaning they contain, organizational identification and affective commitment to be “high” can be interpreted as an indicator of consistency among the findings of the research.

When the correlation analysis of the research is examined, it is seen that there is a positive significant relation between the leader-member exchange, organizational identification and organizational commitment. Yet, positive high correlation between leader-member exchange and organizational identification, and positive medium significant correlation between leader-member exchange and organizational commitment and between organizational identification and organizational commitment were found. In addition to the studies in the literature which show that there are positive significant relationships between leader-member exchange and organizational identification (Göksel & Ekmekçi, 2016; Loi, Chan & Lam, 2014; Sollitto, Martin, Dusic, Gibbons & Wagenhouser, 2016), there are also some research results showing positive significant relationships between leader-member exchange and organizational commitment (Nystrom, 1990; Schriesheim, Neider, Scandura & Tepper, 1992; Schyns, Paul, Mohr & Blank, 2005; Sherony & Green, 2002), and between organizational identification and organizational commitment (Efraty, Sirgy & Claiborne, 1991; Göksel & Ekmekçi, 2016; Riketta, 2005; Van Knippenberg & Van Schie, 2000). Therefore, it is understood that the correlation analysis findings of the research are supported by the literature. According to the correlation analyses, the increase in teachers' leader-member exchange level can be associated with the increase in organizational identification and organizational commitment levels; and similarly the increase in teachers' organizational identification level can be associated with the increase of their organizational commitment level. Obviously, in the literature, it is stated that leader-member exchange is related to many organizational outcomes and it provides a basis for positive organizational behaviour (Graen & Uhl-Bien, 1995). Within this regard, it can be asserted that leader-member exchange is effective in the emergence of desired organizational behaviours by teachers. In another saying, school principals’ interaction with teachers may have enabled teachers to have positive feelings towards their school.

In the end of this research, in which the mediating effect of organizational identification was tested, it was found out that organizational identification has “partial mediating” effect between leader-member exchange and organizational commitment. This finding can be accepted as a direct indicator that there is leader-member exchange is both directly and indirectly effective on organizational commitment. When the literature is reviewed, there is no research found on the mediating effect of organizational identification in
the relationship between leader-member exchange and organizational commitment. However, some studies on the mediating effect of organizational commitment in relationship between leader-member exchange and organizational identification were found in the literate (Katrinli, Atabay, Günay & Güneri, 2008; Göksel & Ekmekcioğlu, 2016). In the study of Katrinli et al. (2008) organizational commitment has “partial mediating” effect between leader-member exchange and organizational identification; on the other hand, in the study of Göksel & Ekmekcioğlu (2016) it has a “full mediating” effect. When the results of all studies mentioned considered together, it can be claimed that different organizational behaviours may have a mediating effect on the relationship between leader-member exchange and other organizational variables.

The results of the Path analysis point out that if the leader-member exchange increases, teachers will identify more with their organizations and their commitment to the organizations will increase accordingly. According to Bauner, Erdoğan, Liden and Wayne (2006), when leader-member exchange is in high level, it expresses that employees think they are cared about; this increases their loyalty and ensures to be firmly committed to their work. Similarly, Mete, Sökmen and Bıyık (2016) stated that organizational identification affects organizational commitment and employees are related to organizational adaptation. Thus, in the current research, the fact that leader-member interaction increases teachers’ organizational commitment and organizational identification can also be interpreted as an indicator of the theoretical support of the study.

When all findings of the study considered together, a conclusion can be made that there are significant relations between leader-member exchange, organizational identification and organizational commitment. Besides, a partial mediating effect of organizational identification in the relationship between leader-member exchange and organizational commitment was also found. In other words, it is obvious that the relationship between leader-member exchange and organizational commitment occurs through organizational identification.

This research has some limitations. It was conducted on only teachers working at 21 primary schools in Çankaya province of Ankara. The research can be repeated in different cities and regions in order to increase generalizability. It can be carried out in pre-school, secondary school, high school and university levels, and on other staff who are not in education and training services. Moreover, this research, designed with a quantitative research model, can be studied in more detail and more comprehensively with qualitative or mixed model methods.

Suggestions

Suggestions for practitioners may also be presented in this research. In this framework, the school principals who want to increase the organizational identification and organizational commitment levels of teachers need to interact and communicate with teachers in the school. The fact should be known that organizational identification is important for teachers’ organizational commitment so, school principals need to be encouraged to take an active role to help teachers internalize the goals of the school. The school principals’ having high level of knowledge, skills, and expertise may contribute to the quality of the interaction they have with teachers. Therefore, the existence of a merit based understanding within the selection of school principals, may affect the teachers’ identification with the school and increases their commitment to the school they work. The principals who can build desired level of leader-member exchange may be rewarded with certificates of achievement by central or provincial organizations.
References


Brown, B. B. (2003). *Employees’ Organizational Commitment and Their Perception of Supervisors’ Relations-Oriented and Task-Oriented Leadership Behaviors*, (Unpublished dissertation), Falls Church, Virginia, USA.


George, N.A., Aboobaker, N. and Edward, M. (2020). "Corporate social responsibility and organizational commitment: effects of CSR attitude, organizational trust and


Yıldız, K. (2013). Örgütsel bağlılık ile örgütsel sinizm ve örgütsel muhalefet arasındaki ilişki. *International Periodical For The Languages, Literature and History of Turkish or Turkic, 8*(6), 853-879.


