

Mediating Effects of Organizational Culture Perception on the Relation between Organizational Justice and Interorganizational Citizenship Behavior

Arzu Türkmen^a, Mustafa Sağsan^b, Edip Örucü^c

Abstract

Strong organizational culture and organizational justice perceptions are significant variables in transferring positive extra-role behaviors from the individual level to the organizational level, and organizations that support the emergence of interorganizational citizenship behavior can enhance their organizational performance by utilizing their human resources more efficiently. The main objective of this study was to provide empirical evidence to determine the mediating effect of organizational culture perceptions on the relation between organizational justice perceptions and interorganizational citizenship behaviors displayed among healthcare professionals. The study adopted a descriptive, cross-sectional design. The study population comprised 2156 participants, who were healthcare professionals working at three city hospitals in Bursa, Eskişehir, and Bilecik. The results indicated that there was a positive and significant direct effect of organizational justice on organizational culture and of organizational culture on interorganizational citizenship behavior. It was also found that organizational justice had a positive and significant effect on interorganizational citizenship behavior before the mediating variable was included in the model. In addition, the results showed that organizational culture perception had a partial mediating effect on the relation between organizational justice perception and interorganizational citizenship behavior. The results of the study revealed that organizational culture and organizational justice perceptions are important in relation to interorganizational citizenship behaviors.

Keywords: Organizational culture, organizational justice, interorganizational citizenship behavior, healthcare professional, healthcare institutions.

Introduction

There has been a noteworthy increase in interorganizational relations in recent years. As a result of the increasing relations among organizations, concepts such as mutual trust, commitment, loyalty, information sharing, altruism, and kindness have gained prominence. Therefore, it has become necessary for organizations to investigate interorganizational citizenship behavior, which emerges as the voluntary extra-role behaviors displayed by individuals and groups within the organization and is transferred into interorganizational relations, along with its

premises and results. The main objective of the present study was to investigate the mediating effect of organizational culture perception in the relation between organizational justice perception and interorganizational citizenship behavior among healthcare professionals. Previous studies have investigated interorganizational citizenship behavior in manufacturing industries (Özdevecioğlu & Akın, 2013), but the number of empirical studies focused on the service industry remains notably limited (Yoon & Sulh, 2003). This study was carried out in hospitals, which are a part of the service industry and where there is an intense level of interaction between people; it aims to fill the gap in the literature and present empirical evidence.

Organizational culture is a system of verbal, behavioral, and visual-based values, norms, and beliefs that guide the members of an organization (Van Der Westhuizen et al., 2005). Each organization is unique and has distinct

^a Graduate School of Social Sciences, Near East University, Nicosia-Cyprus. Email: arzu.turkmen75@hotmail.com

^b Director of Graduate School of Social Sciences, Faculty of Economics and Administrative Sciences, Near East University, Nicosia-Cyprus. Email: mustafa.sagsan@neu.edu.tr

^c Faculty of Economics and Administrative Sciences, Department of Business Administrative, Management and Strategy, Department of Commercial Law President, Bandırma Onyedi Eylül University, Turkey. Email: eorucu@bandirma.edu.tr

characteristics. According to Cameron and Quinn (1999), there are four dominant types of culture, namely clan, adhocracy, hierarchy, and market culture (Cameron & Quinn, 1999). The most typical characteristics of an organization that embraces clan culture are cherishing of traditions and values, teamwork, leadership in the role of parenthood, a strong commitment to the organization, and sensitivity toward the customer (Eren, 2012). In organizations featuring adhocracy culture, a climate of dynamism, entrepreneurship, and creativity prevails. Leaders adopt strategies that support creativity and entrepreneurship. In this type, the desire is to create an organization that can adjust itself according to changing environmental conditions, can revise itself promptly, has become specialized, and has a dynamic structure. The achievement strategy of the organization is the production of newly manufactured goods/service outputs (Hult, Ketchen, & Nichols, 2002). In organizations where hierarchy culture is dominant, there is advanced formalization, structuring, and an authority limit. The relationships between individuals are formal. The achievement criteria of the organization are long-term stability and productivity (Erdem, Adigüzel, & Kaya, 2010). Organizations that embrace market culture are result oriented. They have a policy of competitive pricing. Market leadership is important. The leaders are insistent, productive, and competitive (Balogh, Gaal & Szabo, 2011). Organizational culture may become an element that motivates the members of an organization as well as restricts their behaviors; it may ensure consistency of their behaviors at times as well as regulate and manage their behaviors. In their study in which they underscored the importance of the processes that lead to culturally conditioned behaviors, Kastanakis and Voyer (2014) revealed how intercultural differences influence perceptual and cognitive processes and discussed the resulting behavioral differences in theoretical and methodological terms. The outcomes of an organizational culture depend on its quality and perception among employees. Therefore, it is inevitable that perceptions of organizational culture form the basis of employees' attitudes and behaviors toward other organizations (Autry, Skinner, & Lamb, 2008).

Ethical leadership is capable of fostering justice at the workplace; Justice is related to procedural, distributive, and interactional justice within organizations. The distributive justice refers to the employee perception of outcomes fairness (Ahmad, 2018). Evaluations of employees regarding the distribution of rewards based on their efforts and

contribution in the organization are accepted within the dimension of "distributive justice" (Çağ & Öcal, 2011:41). Procedural justice represents the fairness of the process required to identify the outcomes. Employees tend to make judgements, in the context of strong culture, their perceptions of distributive justice are likely to increase. Also, they are more likely to be involved compared to employees who perceive weak justice at the workplace (Wohlgemuth, Wenzel, Berger, & Eisend, 2019). Employees' evaluations regarding the extent to which processes are fair in the distribution of outcomes are accepted within the dimension of "procedural justice" (Çağ & Öcal, 2011:41). Moreover, the interactional justice represents an extension of the procedural justice. The interactional justice refers to communication and interpersonal interactions between the managers and employees. The process of interactional justice enables employees to develop their own perception of justice within the interaction process between them and their direct supervisor that influence their behavior (Ahmad, 2018). These employees are more likely to show citizenship behavior towards their workplace that keeps the balance between people's relationships within the organization (Nikolova, Schaufeli, & Notelaers, 2019). Employees' evaluation regarding the behaviors of their seniors towards themselves are accepted in the sub dimension of "interactional justice" (Bies & Moag, 1986: 89-118). Based on these evaluations, they display certain attitudes and behaviors toward the organization and their managers. When interactional justice is high, employees may even ignore unfair practices by assigning less importance to their low justice perceptions about distributive or procedural justice (Scarlicki & Folger, 1997). Moreover, employees with high interactional justice perceptions tend to have highly positive attitudes toward the organization (Çağ & Öcal, 2011; Yıldırım, 2007). Organizational justice is a subject that has been frequently covered in organizational behavior and industrial psychology literature. The reason behind the intensive interest in the concept of organizational justice among researchers is the effect of the justice evaluations of employees on organizational outputs.

Some studies suggest that the organizational justice perceptions of employees affect their organizational citizenship behaviors (İşcan & Sayın, 2010) and act as a factor that reveals/ hinders various dimensions of interorganizational citizenship behaviors (Autry et al., 2008). Interorganizational citizenship behavior refers to

the organizational citizenship behaviors of individuals and groups that have an impact at the organizational level. It also refers to the pro bono voluntary behaviors carried out by an organization for the benefit of another organization that it is in cooperation with or an upper system it is affiliated with (Özdevecioğlu, 2009). Autry et al.'s study (2008) on the subdimensions of interorganizational citizenship behavior is of great importance in this area of research. According to Özdevecioğlu (2009), the subdimensions of interorganizational citizenship behavior developed by Autry et al. (2008) are altruism, information sharing, sportsmanship, and compliance. Interorganizational altruism refers to the support given by an organization to another organization with which it has a collaboration/affiliation in solving its problems or with respect to financial aspects. Interorganizational information sharing refers to the transfer of knowledge and cooperation in developing products and processes. Interorganizational sportsmanship explains an organization's level of tolerance, that is, if it refrains from imposing penalties when another organization with which it has any relations is unable to achieve certain outcomes. Interorganizational compliance refers to accommodationist attitudes between organizations. Altruism and sportsmanship bring about interorganizational compliance. There are numerous benefits of displaying interorganizational citizenship behavior for organizations that engage in interorganizational collaboration. Organizations that display interorganizational citizenship behavior can adapt more easily to changing environmental conditions by sharing information, experience, and skills. One organization can enhance the skills and performance of another by providing help and support. Organizations that display citizenship behavior in collaboration can share resources that are relatively redundant for the organizations they incorporate and scarce for other organizations (Özdevecioğlu & Akın, 2013). There are studies that have concluded that interorganizational citizenship behaviors enhance organizations' competitive capacity and profitability (Autry et al., 2008). Interorganizational citizenship behavior, which provides organizations with a unique wealth, has been overlooked in the literature, and there is limited number of studies conducted on the subject, especially with regard to the service industry. This study was conducted at healthcare institutions, which are part of the service industry and where there is an intense level of interaction between people. The investigation of

interorganizational citizenship behaviors in the labor-intensive healthcare institutions presented in this study will be a significant contribution to the literature.

Theoretical framework and hypothesis development

Organizational justice and organizational culture

In Hofstede's study (1991), he observed that organizational justice could be evaluated differently in different cultures and could display different behavior patterns and addressed the issue through the dimensions of individualism–collectivism and power distance. Several other studies support Hofstede's conclusions. While the norm of fairness is preferred in individualistic cultures, the rule of equality is preferred in collectivist cultures (Giacobbe-Miller, Miller, Zhang, & Victorov, 2003). It is known that individuals' evaluations of distributive justice differ in terms of the dimension of power distance (Schilpzand, Martins, Kirkman, Lowe, & Chen, 2013). It was found that in cultures with low power distance, distributive justice is a key factor in individuals' evaluations of the organization and that distributive justice is more effective in determining outcomes related to employees (Lee, Pillutta, & Law, 2000; Murpy-Berman, Berman, & Çukur, 2011). In contrast, it was seen that unequal salary distribution among employees is accepted more easily in cultures with high power distance (Leung, 2005).

In 2018, Uludağ, Aktaş, & Özgüt found during their study with 511 participants employed in the education sector that when the organizational justice perception levels of employees were high, organizational culture perceptions were positive. They determined that organizational culture perception had a full mediating role between operational justice, interactional justice, and information sharing. In her study of 636 academics working at universities in Australia and Pakistan, Ahmad (2018) found that perceived interactive justice played a mediating role in the relationship between ethical leadership and employees being subjected to intercultural bullying. In Ertaş and Unur's study (2018) with 41 hotel employees in the tourism sector, they found that organizational culture dimensions affected the subdimensions of organizational justice, whereas power distance did not affect distributive justice, and masculinity did not affect distributive and operational justice. In Sezgin, Yahyagil, and Dicle's study (2009) conducted in institutions operating in service and manufacturing sectors, they found that distributive justice perceptions are high among organizational

cultures that value innovation and that outward-looking cultures have a greater perception of operational justice. In Meydan and Basım's study (2010) with 394 primary school teachers, they determined that there is a significant positive relation between organizational culture perception, organizational justice, and organizational power, which predict the variables of organizational commitment and job satisfaction. In Koşar and Yalçınkaya's study (2013) with 873 teachers in the education sector, they found a partial mediating effect of organizational culture between organizational trust and justice perceptions. In Taşçıoğlu and Yıldız's study (2010) with 281 participants employed in public institutions, they determined that hierarchy culture has a strong effect on procedural justice perception.

Organizational justice and interorganizational citizenship behavior

Organizational justice perception is an important concept that affects organizational citizenship behaviors (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). There are studies indicating that organizational justice evaluations affect various aspects such as job satisfaction, job performance, commitment to the job, and organizational citizenship behavior (İşcan & Sayın, 2010). A transition is possible from citizenship behaviors at the individual level and/or within the organization to citizenship behaviors at the organizational level (Özdevecioğlu, 2009)

Sökmen, Şahal, & Söylemez (2015) found in their study with 314 employees in the defense sector that there are significant positive relations with the subdimensions of justice and citizenship behavior and that the subdimensions of distributive justice positively affect three subdimensions of citizenship behavior—conscientiousness, sportsmanship, and kindness. The study by Eren and İraz (2014) conducted with 204 nurses employed in a public hospital revealed that there is a positive relation between organizational justice perceptions and citizenship behavior. In a study with 386 employees at an enterprise in Taiwan, Ching-Sheng Chang (2014) found that perceived justice and institutional support positively affects citizenship behaviors and that the employees in the organization displayed devoted behaviors. In a study with 618 lecturers at universities in Turkey, Erkutlu (2011) found that organizational culture has a moderate role between organizational justice and citizenship behavior; there is a stronger relation between interactional justice and citizenship behaviors and poor relations between distributive

and procedural justice. In studies by Polat and Celep (2008) and Yılmaz and Taşdan (2009) carried out in the education sector, a positive relation was found between organizational justice perception and citizenship behavior. In a study with 319 employees in the defense sector, Dilek and Alpkan (2005) found a positive relation between distributive justice and citizenship behaviors. In Sezgin et al.'s study (2009) with 387 white-collar employees in the service and manufacturing sectors, they found that operational justice affects citizenship behavior positively.

Organizational culture and interorganizational citizenship behavior

According to Blau's social exchange theory (1964), employees not only engage in business exchange relations but also in social exchange relations (Bozkurt & Uyargil, 2010). The determinants of this mutual exchange are trust, honesty, loyalty, and mutual commitment. The timing and nature of the mutuality is voluntary. According to this theory, if there is an inconsistency between the expectations of the employees and the benefits from the organization, employees perceive inequality, reduce their contribution to the organization, and give up displaying citizenship behavior (Turnley, Bolino, Lester, & Bloodgood, 2003). In the case of a fair social exchange relation, employees engage in a cooperative attitude with the organization and tend to exhibit citizenship behavior (Masterson, Lewis, Goldman, Taylor, 2000). This is to say that the organizational culture type may shape the interorganizational citizenship behaviors at various levels and in various aspects. In an organization with clan culture, the parental role might lead to support, tolerance, and collectivism, whereas an opposite type of citizenship behavior might be exhibited in an organization with market culture because competition is dominant. In an organization with hierarchy culture, formal relations, procedures, and rules are dominant; therefore, information sharing, a subdimension of interorganizational citizenship behavior, might constitute a crime for the employees of such an organization (Autry et al., 2008; Özdevecioğlu & Akin, 2013).

In a study with 1613 teachers in the education sector, Avcı (2016) found that organizational culture perception could predict citizenship behaviors and that there is a moderately positive relation between the two. In their study involving 361 Turkish employees' part of the ethnic minority group in Belgium, Tufan and Wendt (2019) showed that organizational identity has a mediating role in

the relation between psychological violation of contracts and organizational citizenship behavior. In a study with 475 employees working at a leading company with national and international operations in the furniture sector, Kalkan and Öğüt (2013) determined that there is a significant positive relationship between the subdimensions of organizational culture and citizenship behaviors. In addition, they found that the participation, adaptability, and vision dimensions of organizational culture positively affect citizenship behaviors. Çelik and Bingöl (2007) conducted a study with 945 employees working at companies operating in the fields of electronics and software within the defense sector. They found that there is a strong positive relation between the dimensions of organizational culture and citizenship behaviors. They argued that the results were similar although the organizations were different because of having similar areas of operation, being members of the same association, having joint projects, and being in a close relationship because of their businesses. When intercultural citizenship behavior was analyzed, it was found that an employee belonging to a collectivist culture exhibited a greater degree of citizenship behavior compared to those coming from individualistic cultures (Wanxian & Weiwu, 2007). In addition, employees limit their citizenship behavior in a mechanical (hierarchical) culture structure, whereas they display citizenship behavior by taking initiatives beyond their role definitions in an organic structure (Somech & Ron, 2007; Somech & Drach-Zahavy, 2004).

Research hypotheses

- H₁: Organizational culture has a mediating effect in the relation between organizational justice perception and organizational citizenship behavior.
- H_{1a}: There is a positive relation between organizational justice perception and organizational culture perception.
- H_{1b}: There is a positive relation between organizational justice perception and interorganizational citizenship behavior.
- H_{1c}: There is a positive relation between organizational culture perception and interorganizational citizenship behavior.

Material and Methods

Study variables and instrument

The study adopted a descriptive cross-sectional design. Three scales to assess organizational culture, organizational justice perception, and interorganizational citizenship behavior were used.

In addition to the scales, participants' gender, age, level of education, vocational experience, and time at the workplace were collected as demographic information and added to the research survey. The Organizational Culture Assessment Instrument (OCAI), developed by Cameron and Quinn (1999) and translated into Turkish by Akdoğan and Kurt (2010), was used to reveal the organizational culture perceptions of participants. The scale consists of 24 items; it has four subdimensions, namely clan, adhocracy, market, and hierarchy. Each dimension was measured using six items, namely the dominant characteristics of the organization: leadership, management of employees, commitment to the organization, strategic importance, and achievement. The result of the analysis carried out to determine the reliability level of the study showed that the coefficient of the OCAI was $\alpha = 0.98$ (Table 1). A five-point Likert scale, from 1 (Strongly Disagree) to 5 (Strongly Agree), was used to determine participants' agreement levels with the 24 items on the OCAI. Some of the statements under the OCAI were as follows: "The management style of my business is characterized by the concepts of teamwork, consensus, and participation"; "The management style of my business is characterized by the concepts of individual risk-taking, innovation, freedom, and awareness"; "The management style of my business is characterized by fierce competitiveness, high demands, and success-orientedness"; and "The management style of my business is characterized by employment guarantee, compliance, predictability, and decisions of stability in relationships."

The Organizational Justice Scale, developed by Colquitt (2001) and translated into Turkish by Özmen et al. (2007), was used to measure organizational justice perception. The scale consists of 20 items and four subdimensions, namely, process justice, distributive justice, interpersonal justice, and informational justice. The process justice dimension was measured with 7 items, distributive and interpersonal justice with 4 items, and informational justice with 5 items. The reliability levels that show internal consistency between variables were calculated to ensure the quality of analyses and a reliable data set. The coefficient for the whole Organizational Justice Scale was $\alpha = 0.98$ (Table 1). A five-point Likert scale was used to determine participants' level of agreement with the 20 items on the organizational justice perception scale. Some of the statements under the Organizational Justice Scale were as follows: "My rewards reflect my efforts"; "My

rewards are consistent with the work I complete”; “My rewards compensate for my contribution to the institution that I am working for”; and “My rewards are fair and are based on my performance.”

The Interorganizational Citizenship Behavior Scale, developed by Autry et al. (2008) and edited and translated into Turkish by Özdevecioğlu (2009), was used to measure interorganizational citizenship behavior. The scale consisted of 23 items and four subdimensions, namely interorganizational altruism, information sharing, sportsmanship, and compliance. The dimension of interorganizational altruism was measured with 8 items, interorganizational information sharing with 5 items, interorganizational sportsmanship with 6 items, and interorganizational compliance with 4 items. The reliability levels that show the internal consistency between variables were calculated in terms of the quality of the analyses. The coefficient for the entire Interorganizational Citizenship Behavior Scale was $\alpha = 0.93$ (Table 1). A five-point Likert scale was used in the study to determine participants’ level of agreement with the 23 items on the Interorganizational Citizenship Behavior Scale. Some of the statements under the scale were as follows: “We keep confidential information of the organizations that we cooperate with”; “We warn the organizations we cooperate with about their non-compliant practices in a friendly manner”; “We recommend the organizations we cooperate with to other organizations”; and “We direct some of our redundant resources to the organizations we cooperate with.”

Sample and procedure

The population of the study consisted of healthcare professionals ($N = 2896$) working at city hospitals in Bursa, Eskişehir, and Bilecik, operating under the Ministry of Health. Simple random sampling was used to determine the sample group. In this regard, taking p and q values as 0.5, with lot tolerance percent defective as $E = .05$, and in 95% confidence interval, it was found that 340 participants could represent 2896 individuals in a confidence interval of 95% (Yazıcıoğlu & Erdoğan, 2004). However, Hair, Black, Babin, & Anderson (2010) suggest that the minimum sample size should be 5 times more than the number of observed variables and that a more acceptable sample size should be 10 times more than the number of observed variables. Because the number of observed variables in this study was 67, the aim was to reach 670 (67×10) participants to achieve an acceptable sample size. At the end of the study,

data were collected from 2239 individuals. 83 participants had to be excluded from the analysis because of missing data, inattentive survey responses, and outlier values. The final sample comprised 2156 healthcare professionals.

Data analysis

The data collected through the survey forms were analyzed prior to analysis, and it was found that the missing data rate was less than 4%. The missing data were estimated using the expectation-maximization algorithm (imputation). The statistical analyses were carried out on the data set after the missing data were completed. First, analyses were carried out for the validity and reliability of the scores obtained from the measurement instruments used in the study, and analyses were conducted to test research hypotheses in the subsequent step. To examine the construct validity of the scales used in the study, the data set consisting of 2156 observations was randomly divided into two sets. An exploratory factor analysis was conducted using the data in the first set, and a confirmatory factor analysis was carried out using the data in the second set. The exploratory factor analysis was conducted in SPSS using the categorical principal component analysis (CATPCA) module, which is recommended for the analysis of data at item level. The varimax rotation technique was used to make the interpretation of factor loads easier. The criteria used for determining the number of factors were the Kaiser criterion, cluster graphs, and parallel analysis results. A simpler model that is theoretically significant and empirically supported was targeted by removing items with an item load lower than 0.32 and those loaded on two or more factors. The suitability of the data for factor analysis was checked by examining the values of the Kaiser-Meyer-Olkin (KMO) Test and Bartlett’s test for sphericity before the exploratory factor analysis. The polychoric correlation matrix, recommended for the analysis of data at item level in confirmatory factor analysis, was created, and the construct validity was analyzed using the diagonally weighted least square estimation technique. The reliability of the scores obtained from measurement instruments was assessed by calculating the Cronbach’s alpha internal consistency coefficient. The mediation hypothesis between variables was tested using structural equation modeling. The two-stage version adapted for the structural equation modeling of the regression-based four-stage approach suggested by Baron and Kenny (1986) was used to test the mediating effect (Gunzler,

Chen, Wu, & Zhang, 2013).

Results

Descriptive statistics, reliability test statistics, correlation analysis, exploratory factor analysis, confirmatory factor analysis, and structural equation modeling were used in the analysis of data in this study.

Profile of respondents

The majority of the employees in the study were women (71.2%); were in the age range of 32–45 (58.3%); had an undergraduate degree (38%); were employed as a midwife-nurse (45.7%); had 21 years of professional experience or more (35.8%); and were working at the hospital where they were currently employed for between 6–10 years (29.1%) (Table 2).

Descriptive statistics

The evidence for construct validity and reliability was examined by calculating the mean and standard deviation scores obtained from the scales collected and their subscales, as shown in Table 3.

Exploratory factor analysis results

The categorical principal component analysis conducted for the OCAI that consisted of 24 items showed that there were three components with an eigenvalue higher than 1. However, the results of the cluster graph and parallel analysis indicated that a one-component structure was more suitable. Because the factor load of the seventh item in the scale was less than 0.32, it was removed from the analysis. Factor analysis was repeated in the following step. The results showed that 23 items were loaded under a single component and that the one-component structure explained 68.1% of the total variance. The factor loads for the items in the OCAI varied between .88 and .53 (Table 1). The Cronbach's alpha coefficient obtained as a result of the reliability analysis conducted to determine the reliability level of the OCAI is $\alpha = 0.98$ for the entire scale.

The categorical principal component analysis conducted for the Organizational Justice Scale comprising 20 items showed that there were three components with an eigenvalue higher than 1. In the three-component solution, the first component had a relation with all items, and the factor loads were negative under the other components. The result of the parallel analysis used to determine the number of components showed that a one-component structure was a more suitable solution for the data. In the one-component solution, the

analysis was repeated after removing the 15th item in the interpersonal justice component that had a low and negative factor load. The results of the analysis showed that 19 items loaded under the same component that had an eigenvalue of 14.56 and explained 76.64% of the total variance. The factor loads of the component varied between 0.46 and 0.93 (Table 1). The Cronbach's alpha coefficient calculated for the component is $\alpha = 0.98$.

The categorical principal component analysis conducted for the Interorganizational Citizenship Behavior Scale that consisted of 23 items showed that there were three components with an eigenvalue higher than 1. The result of the parallel analysis also revealed that the three-component structure was suitable. The analysis was repeated after 10 items that were loaded under multiple components and under components that were different from those they were theoretically related to, were removed. The results showed that 13 items were loaded under three components with an eigenvalue higher than 1, which explained 71.7% of the total variance. These components were labeled as interorganizational altruism, interorganizational information sharing, and interorganizational sportsmanship. The factor loads for the components varied between 0.42 and 0.85 (Table 1). The internal consistency coefficient calculated individually for all three components is $\alpha = 0.92$. The Cronbach's alpha coefficient calculated for the entire scale is $\alpha = 0.93$.

Confirmatory factor analysis results

The confirmatory factor analysis conducted for the OCAI showed that the one-factor model consisting of 22 items had acceptable fit indexes and that the data matched the model (Table 4). The factor loads were statistically significant and varied between 0.49 and 0.88.

The confirmatory factor analysis conducted for the Organizational Justice Scale showed that the one-factor model consisting of 19 items had acceptable fit indexes and that the data matched the model (Table 4). Factor loads were statistically significant and varied between 0.46 and 0.88.

The confirmatory factor analysis conducted for the Interorganizational Citizenship Behavior Scale showed that the three-factor model consisting of 13 items had acceptable fit indexes and that the data matched the model (Table 4). It was observed that the factor loads were statistically significant and varied between 0.45 and 0.95.

Correlation analysis results

The relations between organizational justice,

interorganizational citizenship behavior, and organizational culture and their subscales were examined by calculating the Pearson correlation coefficient. As can be seen in Table 5, all correlations among the independent, mediating, and dependent variables were significant (* * $p < .01$).

Mediation analysis results

In this study, the mediation hypothesis between the variables was tested using structural equation modeling. In testing the mediating effect, the two-step version of the regression-based four-step approach, suggested by Baron and Kenny (1986), adapted for structural equation modeling was used (Gunzler et al., 2013). In the first stage, it was tested whether organizational justice affected interorganizational citizenship behavior. In the second stage, it was investigated whether organizational culture had a mediating effect on the impact of organizational justice on interorganizational citizenship behavior. The variables that were created by calculating the total scores on the basis of subscales were used in the analyses. The data were analyzed through robust maximum likelihood estimation using the covariance matrix.

First Stage: Direct effect of organizational justice on interorganizational citizenship behaviors

The results of the structural equation modeling analysis conducted to test whether organizational justice affected interorganizational citizenship behaviors indicated that the model had acceptable fit values ($\chi^2 = 64.49$, $df = 2$, $p < .001$; $SRMR = 0.04$, $RMSEA = 0.10$, $GFI = 0.99$, $AGFI = 0.93$, $CFI = 0.98$, $NFI = 0.98$, $TLI = 0.93$). The results revealed that the direct effect of organizational justice on interorganizational citizenship behavior was statistically significant, moderate, and positive ($\beta = 0.31$, $t = 13.49$, $p < 0.01$). These results indicated that whether organizational culture has a mediating effect on the impact of organizational justice on interorganizational citizenship behavior could be investigated in the second stage.

Second stage: Mediating effect of organizational culture on the direct effect of organizational justice on interorganizational citizenship behaviors

The results of the analysis conducted to investigate whether organizational culture had a mediating effect on the effect of organizational justice on interorganizational citizenship behaviors indicated that the model had acceptable fit values

($\chi^2 = 129.25$, $df = 4$, $p < .001$; $SRMR = 0.05$, $RMSEA = 0.10$, $GFI = 0.98$, $AGFI = 0.91$, $CFI = 0.98$, $NFI = 0.98$, $TLI = 0.95$). Adding a third mediating variable into the model that included organizational justice and interorganizational citizenship behavior led to a relative improvement in the model fit indices. This suggests that organizational culture, which was the mediating variable, contributed to the model; in other words, it should be considered specifically in the relation between organizational justice and interorganizational citizenship behavior.

Hypothesis test results

When the mediation model was investigated with respect to the first hypothesis of the study, it was found that organizational justice has a positive and significant direct effect on organizational culture ($\beta = .86$, $p < 0.001$). These results support the H_{1a} hypothesis. When the model was investigated with respect to the second hypothesis of the study, we found that while organizational justice has a positive and significant effect on interorganizational citizenship behavior before the mediating variable is added into the model ($\beta = .31$, $p < 0.001$), it has a negative effect after the mediating variable is added ($\beta = -.09$, $p < 0.05$). These results partially support the H_{1b} hypothesis. When the model was investigated based on the third hypothesis of the study, it was found that organizational culture has a positive and significant effect on interorganizational citizenship behavior ($\beta = .46$, $p < 0.001$). These results support the H_{1c} hypothesis. When the model was investigated based on the fourth hypothesis of the study, we found that organizational culture has a significant mediating effect on the relation between organizational justice and interorganizational citizenship behavior ($\beta = .399$, $p < 0.001$). These results support the H_1 hypothesis. The results indicate that the direct effect of organizational justice on interorganizational citizenship behavior in the mediation model changed from positive ($\beta = 0.31$) to negative ($\beta = -0.09$) and decreased and that there is a partial mediating effect. This is referred to as inconsistent mediation or suppression effect (MacKinnon, Krull, & Lockwood, 2000).

The indirect effect of organizational justice on interorganizational citizenship behavior was found to be $\beta = 0.399$ and $p < 0.01$, and its total effect was $\beta = 0.308$ and $p < 0.01$. We found that the mediation model explained 15% of the variance in interorganizational citizenship behavior. The share of mediation was found to be 23% (MacKinnon, Fairchild, & Fritz, 2007).

Discussion and Conclusions

There is a limited number of studies about the premises and results of interorganizational citizenship behavior conducted with employees in the service sector. Therefore, this study aims to provide empirical evidence by testing the mediating effect of organizational culture on the relation between organizational justice perception and interorganizational citizenship behavior among healthcare professionals working at health institutions in Turkey.

The results of the study showed that there is a significant and positive relationship between perceived organizational justice and organizational culture. We obtained similar results to those of Uludağ et al. (2018), Sezgin et al. (2009), and Yılmaz and Taşdan (2009). Distinct cultural patterns are an important concept that may differentiate the justice perceptions of employees who come together based on professional norms. The employees at the healthcare institution where this study was conducted had a strong organizational culture perception. The results of the study indicate a significant positive relation between organizational culture and interorganizational citizenship behavior among healthcare professionals. Muhammad Asad Khan et al. (2020) as a result of the study conducted with the heads of Higher Education departments in Pakistan, they found that organizational culture mediates the relationship between transformational and transactional leadership styles and innovative business behaviors, and organizational citizenship behavior has a moderating effect. The results of the present study run parallel to the results of the studies by Kalkan and Öğüt (2013), Koçar and Yalçinkaya (2013), and Avcı (2016). A strong perception of organizational culture promotes unity and integrity among employees. Managers and employees integrate their responsibilities toward the organization with their responsibilities toward society in organizations with a strong perception of organizational culture. Thus, they perform more than what is expected from their roles. Therefore, organizations must utilize the human element, which is their most valuable and irreplaceable asset, in the most efficient manner. Employees with strong sense of organizational culture and justice perceptions make a positive contribution to organizational performance by exhibiting citizenship behavior at the organizational level.

Studies by Eren and İraz (2014), Sökmen et al. (2015), Ching-Sheng Chang (2014), Polat and Celep (2008), and Yılmaz and Taşdan (2009) found a

significant positive relation between organizational justice and interorganizational citizenship behavior. However, this study found that the positive effect of organizational justice on interorganizational citizenship behavior actually occurs through organizational culture and that the perceptions of organizational justice are negative when organizational culture is controlled for. Moreover, interorganizational citizenship behaviors must be evaluated without separating them from the cultural structure of the society that the organization is a part of. Abigail Opoku Mensah (2019) as a result of their study with 211 bank managers from Ghana; sosya found that there is a positive relationship between cultural value and job satisfaction. The justice evaluations of employees have an impact on their job satisfaction (Qureshi et al., 2016), performance, and citizenship behavior (İşcan & Sayın, 2010). Ahmad (2018) argues that employees who are exposed to the justice behavior of leaders are more likely to be protected against unethical behavior, bullying, or unfairness. Also, the study stresses cross-cultural effectiveness in improving justice at work. The autonomy-supportive management is likely to shield employees from time and effort depletion that leads them to withdrawal from the citizenship behavior and on the contrary, it will increase employee engagement. Also, the Montani & Dagenais-Desmarais (2018) argue that there is a relationship between employee overload and organizational citizenship behavior in an indirect way. While the managerial autonomy reduces the overload and increases the employees' organizational citizenship behavior. This analysis is highly related to the resource's theory. Therefore, transforming employees' negative organizational justice perceptions into positive ones through regulatory measures would positively influence citizenship behaviors and ensure the efficient activation of the human element.

The interorganizational citizenship behaviors exhibited by healthcare professionals in this study were interorganizational altruism, sharing, and sportsmanship. It is important that these behaviors are evaluated from the perspectives of the healthcare institutions where the study was conducted. Hospitals are the most important healthcare providers, especially in providing treatment services. Further, they have other functions such as training, research and development, and raising the level of public health (Official Gazette, 2011). Hospitals, as healthcare institutions, are different from other service industries because of their unique characteristics.

The basic input and output are human beings. It is not possible to compensate for any mistakes made in the processes of diagnosis and treatment. Therefore, the main principle in the provision of healthcare services is doing the job correctly in the first attempt. In terms of human resources, healthcare institutions are composed of highly professionalized employees. When performing their jobs, healthcare professionals give utmost consideration to professional ethics. According to Hackman and Oldman (1976), the requirement of specialized knowledge and skill for the job, the presence of autonomy, and a sense that the job is important create a sense of individual responsibility. Therefore, the employees develop a system of their own and pay attention to not make any mistakes, without even being aware of it (Aktay & Ekşi, 2009). A workplace where there is no close supervision of the manager and that provides autonomy and responsibility enhances intrinsic motivation and organizational commitment (Ünal & Yücel, 2003). As a result, the employees in the organization exhibit greater citizenship behaviors (Keleş & Tuna, 2009). Further, hospitals have to offer services to a large number of units and people. Therefore, their functional dependency levels are remarkably high, leading to a high amount of interaction, solidarity, and collaboration among groups. According to Podsakoff et al. (2000), perceived organizational support and group solidarity affect all dimensions of organizational citizenship behavior (Podsakoff et al., 2000). An increase in the level of perceived organizational support positively affects organizational identification, and organizational identification reveals helping behaviors among employees (Alparslan, Can, & Oktar; 2014). Furthermore, in the collectivistic cultural structure, there is a sense of "us" instead of "me," intragroup harmony, cooperation, and commitment in relationships (Ting-Toomey et al., 2000). Turkish society, of which the healthcare institutions where the study was conducted are a part, has feminine characteristics. Harmony and being compassionate and merciful are in the foreground in human relationships (Danışman & Özgen, 2003). Tufan & Wendt (2019) argue that Turkish people are characterized to be more collectivist in terms of employees influence to the favorable and unfavorable organizational activities; they are more tolerant for violations.

Moreover, that the mediation model in the study explains 15% of the variance in interorganizational citizenship behavior indicates that there are other variables that have an effect.

Research Limitations

The limitations of the present study are that it pertains only to the variables of organizational justice, organizational culture, and interorganizational citizenship behavior, and the results of the study relate to the public healthcare institutions where the study was conducted.

Recommendations

Recommendations for Implementers

Interorganizational citizenship behavior must be investigated more comprehensively in the service sector than in other sectors because employees in the service sector communicate directly with their clients (Bartel, 2004); furthermore, the organizational performance might increase or decrease depending on employees' behaviors. As members of the service sector, hospitals are institutions where there is an intense level of interaction between people. Therefore, behaviors that relate to the voluntary participation of healthcare professionals in the life of the organization must be revealed. As a result of this study, strong organizational culture and justice perceptions among healthcare professionals are important factors that affect their interorganizational citizenship behaviors. These two factors, which are the premises of interorganizational citizenship behaviors, ensure that human resources are used effectively. In this regard, the two factors may be considered by executives as a strategic means to enhance performance.

When the health institutions where the study was conducted were evaluated based on existing practices, several issues still await resolution, such as long and tiring working conditions of healthcare professionals (continuous 24-hour on-call service), low salaries, not getting any results for their claims for social and economic rights. Managers are recommended to implement remedial arrangements in these aspects. Such remedial arrangements will induce healthcare professionals to exhibit more interorganizational citizenship behaviors by affecting their organizational justice perception in a positive way. The Ministry of Health started the implementation of the city hospitals scheme in the hospitals where the research was conducted. The aim of the scheme is to provide high quality healthcare service through a partnership between public and private sectors (Official Gazette 2013). In the city hospitals model, the public sector provides inpatient treatment whereas the private sector provides laboratory and imaging services.

Recommendations for Researchers

An area for future research is the study of healthcare professionals working at private hospitals that are similar to the present study, which was conducted at public hospitals, because the organizational operations and objectives of public and private hospitals differ. Furthermore, it is suggested that the study of interorganizational citizenship behaviors, which remains limited for the service sector, be investigated with different variables and in countries with different or similar cultural characteristics.

Acknowledgement:

The work is based on the Doctorate degree dissertation by Arzu Türkmen entitled "The mediating effect of organizational culture on the relationship between organizational justice and interorganizational citizenship behavior: A field study in the healthcare sector," which will be submitted (planned date of completion: August 2019) to the Near East University, North Cyprus. The co-author of this article is Mustafa Sağsan, supervisor of the dissertation. The mentor advisor is Edip Örucü.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

- [1] Akdoğan, A., Kurt, T. (2010). *The effects of organizational culture on innovation performance—Application at Kayseri manufacturing sector* (Unpublished master's thesis), Erciyes University, Kayseri, Turkey.
- [2] Aktay, A., Ekşi, H. (2009). The relationship between organizational citizenship behaviors and value preferences of teachers and principals. *Turkish Journal of Business Ethics*, 2, 19–77.
- [3] Alparslan, A. M., Can, A., Oktar, ÖF. (2014). The mediating role of organizational identity on the relationship between perceived organizational support and helping behavior: A survey on the employees of hospital. *ISGUC The Journal of Industrial Relations and Human Resources*, 16, 115–128. doi: 10.4026/1303-2860.2014.0250. x.
- [4] Ahmad, S. (2018). Can ethical leadership inhibit workplace bullying across East and West: Exploring cross-cultural interactional justice as a mediating mechanism. *European Management Journal*, 36, 223–234.
- [5] Autry, C. W., Skinner, L. R., Lamb, C. W. (2008). Interorganizational citizenship behaviors: An empirical study. *Journal of Business Logistics*, 29, 53–74.
- [6] Apigail, O. M. (2019). Does Culture Play a Role at Work? Examining the Relationships Among Sociocultural Values, Job Satisfaction, and Social Support as a Mediator, *SAGE Open*, 9(1). <https://doi.org/10.1177/2158244019833275>
- [7] Avcı, A. (2016). The effect of organizational culture on organizational citizenship behaviors. *Journal of Human Sciences*, 13, 5373–5398. doi:10.14687/jhs.v13i3.4264
- [8] Balogh, A., Gaal, Z., Szabo, L. (2011). Relationship between organizational culture and cultural intelligence. *Management & Marketing Challenges for the Knowledge Society*, 6, 99.
- [9] Baron, R. M., Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- [10] Bartel, A. (2004). Human resource management and organizational performance: Evidence from retail banking. *Industrial and Labor Relations Review*, 57, 181–203. doi.org/10.1177/001979390405700202.
- [11] Bies, R., Moag, J. S. (1986). Interactional justice: Communication criteria for fairness. In B. Sheppard (Eds.), *Research on negotiation in organizations*, Vol. 1 (pp. 89-118). Greenwich: JAI Press.
- [12] Blau, P. (1964). *Exchange and power in social life*. New York: Wiley.
- [13] Bozkurt, S., Uyargil, C. (2010). *An investigation of the relationship between human resources practices, organizational citizenship behavior and financial performance: A research in the banking sector* (Unpublished master's thesis). İstanbul University, İstanbul.
- [14] Cameron, K., Quinn, R. (1999). *Diagnosing and changing organizational culture: Based on the competing values framework*. Reading: Addison-Wesley.
- [15] Ching-Sheng C. (2014). Moderating effects of nurse's organizational justice between organizational support and organizational citizenship behaviors evidence-based practice.

- World Views on Evidence Based Nursing*, 11(5). doi: 10.1111/wvn.12054.
- [16] Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86, 386–400.
- [17] Çağ, A., Öcal, H. (2011). *Research into determining the effect of organizational justice over organizational cynicism and on intention to quit work* (Unpublished master's thesis), Kocatepe University, Afyonkarahisar.
- [18] Çelik, M., Bingöl, D. (2007). *Organizational culture and organizational citizenship behavior—An Application* (Doctoral thesis). Atatürk University, Erzurum.
- [19] Danışman, A., Özgen, H. (2003). A methodology discussion in organizational culture studies: Qualitative–quantitative method dilemma, quantitative measurements and recommendation for a scale. *Journal of Management Studies*, 3, 91–124.
- [20] Dilek, H., Alpan, L. (2005). *Research into the effect of leadership types and perception of justice over organizational commitment, job satisfaction and organizational citizenship behavior* (Unpublished master's thesis), Gebze Advanced Technology Institute, Kocaeli.
- [21] Erdem, R., Adigüzel, O., Kaya, A. (2010). Organizational culture types that the academicians perceive and prefer in relation to their institutions. *Journal of Economy and Management Studies Faculty, Kayseri*, 36, 73–88.
- [22] Eren, E. (2012). *Organizational Behavior and Management Psychology*, 13, İstanbul: Beta, 147.
- [23] Eren, İ., İraz, R. (2014). *Effect of organizational justice perception on organizational citizenship behavior: Research into nurses*. Selçuk University, Konya.
- [24] Erkutlu, H. (2011). The moderating role of organizational culture in the relationship between organizational justice and organizational citizenship behaviors. *Leadership & Organization Development Journal*, 32, 532–554.
- [25] Ertaş, Ç., Unur, K. (2018). The impact of cultural values on the organizational justice perception: Example of hotel employees. *Journal of Management and Economics Research*, 16, 206–239. dx.doi.org/10.11611/yead.319420.
- [26] Giacobbe-Miller, J. K., Miller, D. J., Zhang, W., Victorov, V. I. (2003). Country- and organizational-level adaptation to foreign workplace ideologies: A comparative study of distributive justice values in China, Russia and the United States. *Journal of International Business Studies*, 34, 389–406.
- [27] Gunzler, D., Chen, T., Wu, P., Zhang, H. (2013). Introduction to mediation analysis with structural equation modeling. *Shanghai Archives of Psychiatry*, 25, 390–394. doi.org/10.3969/j.issn.1002-0829.2013.06.009.
- [28] Hackman J. R., Oldman, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behaviour and Human Performance*, 16, 250–279.
- [29] Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River: Prentice Hall.
- [30] Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. London: McGraw-Hill.
- [31] Hult, T. M., Ketchen, D. J., Nichols, E. L. (2002). An examination of cultural competitiveness and order fulfillment cycle time within supply chains. *Academy of Management Journal*, 45, 577–586.
- [32] Işcan, Ö. F., Sayın, U. (2010). Relationship between organizational justice, job satisfaction and organizational trust. *Atatürk University Journal of Management and Economics Sciences*, 24, 195–216.
- [33] Kalkan, A., Ögüt, A. (2013). *Effect of organizational culture perception on organizational citizenship behavior: Theoretical and empirical research*. Selçuk University, Konya.
- [34] Kastanakis, M. N., Voyer, B. G. (2014). The effect of culture on perception and cognition: A conceptual framework. *Journal of Business Research*, 67, 4, 425–433.
- [35] Keleş, Y., Tuna, M. (2009). *Effect of employees' education level on organizational citizenship behavior* (Unpublished Master's thesis), Gazi University, Ankara.
- [36] Koşar, D., Yalçinkaya, M. (2013). Organizational culture and organizational trust as predictors of teachers' organizational citizenship behaviors. *Educational Administration: Theory and practice*, 19, 603–627.
- [37] Lee, C., Pillutta, M., Law, K. (2000). Power distance, gender and organizational justice. *Journal of Management*, 26, 685–704.
- [38] Leung, K. (2005). How generalizable are justice effects across cultures? In J. Greenberg & J. A. Colquitt (Eds.), *Handbook of Organizational Justice* (pp. 555–586). Mahwah: Lawrence

- Erlbaum Associates.
- [39] MacKinnon, D. P., Fairchild, A. J., Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, 58, 593. doi.org/10.1146/annurev.psych.58.110405.085542.
- [40] MacKinnon, D. P., Krull, J. L., Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science: The Official Journal of the Society for Prevention Research*, 1, 173. doi: 10.1023/a:1026595011371.
- [41] Masterson, S. S., Lewis, K., Goldman, B. M., Taylor, M. S. (2000). Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationship. *Academy of Management Journal*, 43, 738–748.
- [42] Meydan, C. H., Basım, N. (2010). *Effect of organizational culture, organizational power and organizational justice perception on an individual's job satisfaction and organizational commitment: Public Sector Research* (Published doctoral thesis). KHO Institute of Defense Sciences, Ankara.
- [43] Montoni, F., Dagenais-Desmarais, V. (2018). Unravelling the relationship between role overload and organizational citizenship behaviour: A test of mediating and moderating effects. *European Management Journal*, 36, 757–768.
- [44] Muhammad A. K., Fadillah B. I., Altaf H., Basheer A. (2020). The Interplay of Leadership Styles, Innovative Work Behavior, Organizational Culture, and Organizational Citizenship Behavior, *SAGE Open*, 10(1). https://doi.org/10.1177/2158244019898264
- [45] Murpy-Berman, V. A., Berman, J. J., Çukur, C. Ş. (2011). Cross-cultural differences in distributive justice: A comparison of Turkey and the US. *The Journal of Social Psychology*, 152, 359–369.
- [46] Nikolova, I., Schaufeli, W., Notelaers, G. (2019). Engaging leader e Engaged employees? A cross-lagged study on employee engagement. *European Management Journal*, 37, 772-783.
- [47] Official Gazette (2011). Decree-law on the Organization and Duties of Ministry of Health and Affiliated Organizations, Number of decisions: KHK/663. Republic of Turkey, Ministry of Health, Ankara.
- [48] Official Gazette (2013). Act on Building and Renewing Facilities and Obtaining Services through Public Private Partnership as well as on the Amendment of Certain Decree-Laws, Number of decisions: 6428. Republic of Turkey, Ministry of Health, Ankara.
- [49] Özdevecioğlu, M. (2009). Interorganizational citizenship behaviors: Theoretical framework and a scale development. *Erciyes University Journal of Faculty of Economics and Administrative Science*, 33, 47–67. Retrieved from http://dergipark.gov.tr/erciyesiibd/issue/5890/77914.
- [50] Özdevecioğlu, M., Akin, M. (2013). The perceptions of managers about organizational culture and interorganizational citizenship behaviours. *Journal of the Faculty Economics and Administrative Sciences*, 3, 112–131.
- [51] Özmen, Ö. N. T., Arbak, Y., Süral, Ö. P. (2007). Value attached to justice and its effect on perception of justice. *Journal of Ege Academic Review*, 7, 17–33.
- [52] Podsakoff, P. M., MacKenzie, S. B., Paine J. B., Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggests for future research. *Journal of Management*, 26, 513–563.
- [53] Polat, S., Celep, C. (2008). Secondary school teachers' perception of organizational justice, organizational trust and organizational citizenship behavior. *Educational Administration: Theory and Practice*, 54, 307–331.
- [54] Qureshi, H., Frank, J., Lambert, E.G., Klahm, C., Smith, B. (2017). Organisational justice's relationship with job satisfaction and organisational commitment among Indian police, *SAGE Open*, 90(1). https://doi.org/10.1177/0032258X16662684
- [55] Scarlicki, D. P., Folger, R. (1997). Retaliation in the workplace: The roles of distributive, procedural, and interactional justice. *Journal of Applied Psychology*, 82, 434–443.
- [56] Schilpzand, M. C., Martins, L. L., Kirkman, B. L., Lowe, K. B., Chen, Z. X. (2013). The relationship between organizational justice and organizational citizenship behaviour: The role of cultural value orientations. *Management and Organization Review*, 9, 345–374.
- [57] Sezgin, O., Yahyagil, M., Dicle, Ü. (2009). *Research on the relationship of organizational culture, organizational justice and organizational citizenship concept* (Published doctoral thesis). Yeditepe University, İstanbul.
- [58] Somech, A., Drach-Zahavy, A. (2004). Exploring organizational citizenship behavior from an organizational perspective: The relationship

- between organizational learning and organizational citizenship behavior. *Journal of Occupational and Organizational Psychology*, 77, 281–298.
- [59] Somech, A., Ron, I. (2007). Promoting organizational citizenship behavior in schools: The impact of individual and organizational characteristics. *Educational Administration Quarterly*, 43, 38–66.
- [60] Sökmen, A., Şahal, S., Söylemez, M. (2015). Effect of organizational justice on organizational citizenship behavior: research into defense industry. *Journal of Business Research*, 7, 66–91.
- [61] Taşcıoğlu, H., Yıldız, G. (2010). *Effect of organizational culture on organizational justice: A case study* (Published doctoral thesis), Sakarya University, Sakarya.
- [62] Ting-Toomey, S., Yee-Jung, K., Shapiro, R., Garcia, W., Wright, T., Oetzel, J. G. (2000). Cultural/ethnic identity salience and conflict styles. *International Journal of Intercultural Relations*, 23, 47–81.
- [63] Tufan, P., Wendt, H. (2019). Organizational identification as a mediator for the effects of psychological contract breaches on organizational citizenship behavior: Insights from the perspective of ethnic minority employees, *European Management Journal*, <https://doi.org/10.1016/j.emj.2019.07.001>
- [64] Turnley, W. H., Bolino, M. C., Lester, S. W., Bloodgood, J. M. (2003). The impact of psychological contract fulfilment on the performance of in-role and organizational citizenship behaviors. *Journal of Management*, 29, 187–206.
- [65] Uludağ, O., Aktaş, İ., Özgit, H. (2018). The effects of education employees' organizational justice perceptions and organizational culture on knowledge sharing: Testing the mediating. *Hacettepe University Journal of Education*, 1–22. doi:10.16986/huje.2018037423.
- [66] Ünal, Z., Yücel, C. (2003). *Job satisfaction and organizational citizenship of teachers* (Unpublished master's thesis), Kocatepe University, Afyonkarahisar.
- [67] Van Der Westhuizen, P. C., Mosoge, M. J., Swanepoel, L. H., Coetsee, L. D. (2005). Organizational culture and academic achievement in secondary schools. *Education and Urban Society*, 38, pp. 89–109. doi.org/10.1177/0013124505279959.
- [68] Yazıcıoğlu, Y., Erdoğan, S. (2004). *Scientific research methods with SPSS application*. Ankara: Detay.
- [69] Yıldırım, F. (2007). The relationship between organizational justice and job satisfaction. *Ankara University Journal of the Faculty of Political Sciences*, 62, 253–278.
- [70] Yılmaz, K., Taşdan, M. (2009). Organizational citizenship and organizational justice in Turkish primary schools. *Journal of Educational Administration*, 47, 108–126.
- [71] Yoon, M. H., Suh, J. (2003). Organizational citizenship behaviours and service quality as external effectiveness of contact employees. *Journal of Business Research* 56, 597–611. doi.org/10.1016/S0148-2963(01)00290-9.
- [72] Wanxian, L., Weiwu, W. (2007). A demographic study on citizenship behavior as in role orientation. *Personality and Individual Differences*, 42, 225–234.
- [73] Wohlgemuth, V., Wenzel, M., Berger, E., Eisend, M. (2019). Dynamic capabilities and employee participation: The role of trust and informal control. *European Management Journal*, 37, 760-771.

Table 1. Exploratory factor analysis results for the scales

Components / Items	Factor loads	Reliability (Cronbach's alpha)	Variance explained
Organizational culture		0.98	68.1%
Clan 1	.840		
Clan 5	.861		
Clan 9	.843		
Clan 13	.850		
Clan 17	.865		
Clan 21	.866		
Adhocracy 2	.852		
Adhocracy 6	.859		
Adhocracy 10	.878		
Adhocracy 14	.843		
Adhocracy 18	.864		
Adhocracy 22	.776		
Market 3	.860		
Market 11	.845		
Market 15	.525		
Market 19	.858		
Market 23	.736		
Hierarchy 4	.828		
Hierarchy 8	.853		
Hierarchy 12	.867		
Hierarchy 16	.720		
Hierarchy 20	.840		
Hierarchy 24	.720		
KMO measure of sampling adequacy 0.97			
Bartlett's sphericity test (significance level) .0001			
Estimated χ^2 (253) = 58885.32			
Rotation method: varimax (Kaiser normalization)			
Organizational justice		0.98	76.64%
Process justice 1	.890		
Process justice 2	.913		
Process justice 3	.901		
Process justice 4	.881		
Process justice 5	.906		
Process justice 6	.918		
Process justice 7	.926		
Distributive justice 8	.799		
Distributive justice 9	.823		
Distributive justice 10	.801		
Distributive justice 11	.457		
Interpersonal justice 12	.927		
Interpersonal justice 13	.904		
Interpersonal justice 14	.930		
Informational justice 16	.902		
Informational justice 17	.906		
Informational Justice 18	.902		
Informational Justice 19	.917		
Informational Justice 20	.912		

KMO Measure of sampling adequacy 0.96
 Bartlett's sphericity test (significance level) .0001
 Estimated χ^2 (271) = 56703.682
 Rotation method: varimax (Kaiser normalization)

Components / Items	Factor loads	Reliability (Cronbach's alpha)	Variance explained
Interorganizational citizenship behavior		0.93	71.71%
Interorganizational altruism 2	.786		
Interorganizational altruism 3	.816		
Interorganizational altruism 4	.780		
Interorganizational altruism 5	.754		
Interorganizational altruism		0.92	5.88%
Interorganizational information sharing 9	.787		
Interorganizational information sharing 10	.544		
Interorganizational information sharing 11	.786		
Interorganizational information sharing 12	.420		
Interorganizational information sharing 13	.852		
Interorganizational information sharing		0.92	47.51%
Interorganizational sportsmanship 14	.602		
Interorganizational sportsmanship 15	.783		
Interorganizational sportsmanship 17	.836		
Interorganizational sportsmanship 18	.793		
Interorganizational sportsmanship		0.92	18.32%

KMO measure of sampling adequacy 0.93
 Bartlett's sphericity test (significance level) .0001
 Estimated χ^2 (171) = 33788,867
 Rotation method: varimax (Kaiser normalization)

Table 2. Profile of respondents

Variables	Frequency	%	% Excepting the excluded participants	
Gender	Male	619	28.71	28.8
	Female	1528	70.87	71.2
	No response	9	0.42	-
	Total	2156	100.00	-
Age	18–31 years old	520	24.12	24.3
	32–45 years old	1251	58.02	58.3
	46 years old and above	373	17.30	17.4
	No response	12	0.56	-
	Total	2156	100.00	-
Education Level	High school	393	18.23	18.3
	Associate Degree	815	37.80	38.0
	Undergraduate Degree	557	25.83	26.0
	Graduate Degree	379	17.58	17.7
	No response	12	0.56	-
	Total	2156	100.00	-
Your Profession	Physician	369	17.12	17.1
	Midwife/Nurse	983	45.59	45.7
	Health Officer	98	4.55	4.6
	Other Healthcare Professionals	179	8.30	8.3
	Technician	293	13.59	13.6
	Medical Secretary	231	10.71	10.7
	No response	3	0.14	-
	Total	2156	100.00	-
Your Professional Experience	1–10 years	628	29.13	29.2
	11–20 years	753	34.93	35.0
	21 years and above	771	35.76	35.8
	No response	4	0.19	-
	Total	2156	100.00	-
Your Time at the Workplace	1–5 years	554	25.70	25.7
	6–10 years	626	29.04	29.1
	11–15 years	305	14.15	14.2
	16–20 years	338	15.68	15.7
	21–25 years	70	3.25	3.2
	26–30 years	62	2.88	2.9
	31–35 years	81	3.76	3.8
	36 years and above	118	5.47	5.5
	No response	2	0.09	-
Total	2156	100.00	-	

Table 3. Descriptive Statistics for the Scales

Variables	Minimum	Maximum	Mean	SD
Organizational justice	18.00	90.00	56.50	15.39
Organizational culture	23.00	115.00	72.85	20.01
Interorganizational altruism	4.00	20.00	13.93	3.00
Interorganizational information sharing	5.00	25.00	18.62	3.31
Interorganizational sportsmanship	4.00	20.00	13.50	3.16
Interorganizational citizenship behavior	13.00	65.00	46.05	8.10

Table 4. Model fit index result values of the scales

Fit criteria	Organizational culture	Organizational justice	Interorganizational citizenship behavior
χ^2	$\chi^2 = 1301.52, df = 114$	$\chi^2 = 2123.11, df = 171$	$\chi^2 = 567.36, df = 47$
P value	<.001	<.001	<.001
SRMR	0.03	0.03	0.05
RMSEA	0.07	0.07	0.07
GFI	0.94	0.92	0.96
AGFI	0.90	0.87	0.93
CFI	0.93	0.93	0.93
NFI	0.93	0.96	0.93
TLI	0.93	0.95	0.96

*** SRMR = Standardized root mean square residual, RMSEA = Root mean square error of approximation, GFI = Goodness of fit index, AGFI = Standardized goodness of fit index, CFI = Comparative fit index, NFI = Normed fit index, TLI = Tucker-Lewis index

Table 5. Correlation analysis results

Variables	1	2	3	4	5	6
Organizational justice	1					
Organizational culture	.862**	1				
Interorganizational altruism	.261**	.322**	1			
Interorganizational information sharing	.309**	.395**	.655**	1		
Interorganizational sportsmanship	.137**	.166**	.623**	.519**	1	
Interorganizational citizenship behavior	.276**	.345**	.881**	.854**	.833**	1

** The correlation coefficient was significant at 0.01 level (2-way)

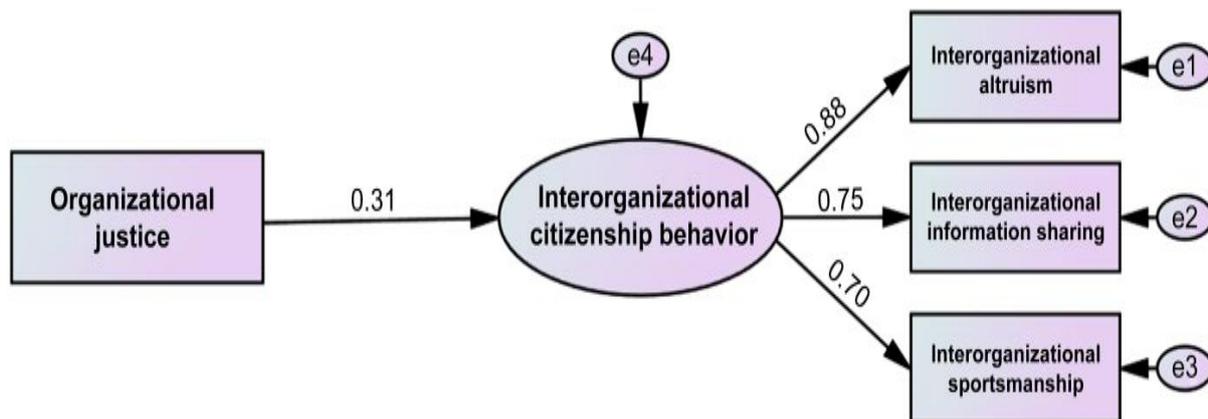


Figure 1. Direct effect of organizational justice on interorganizational citizenship

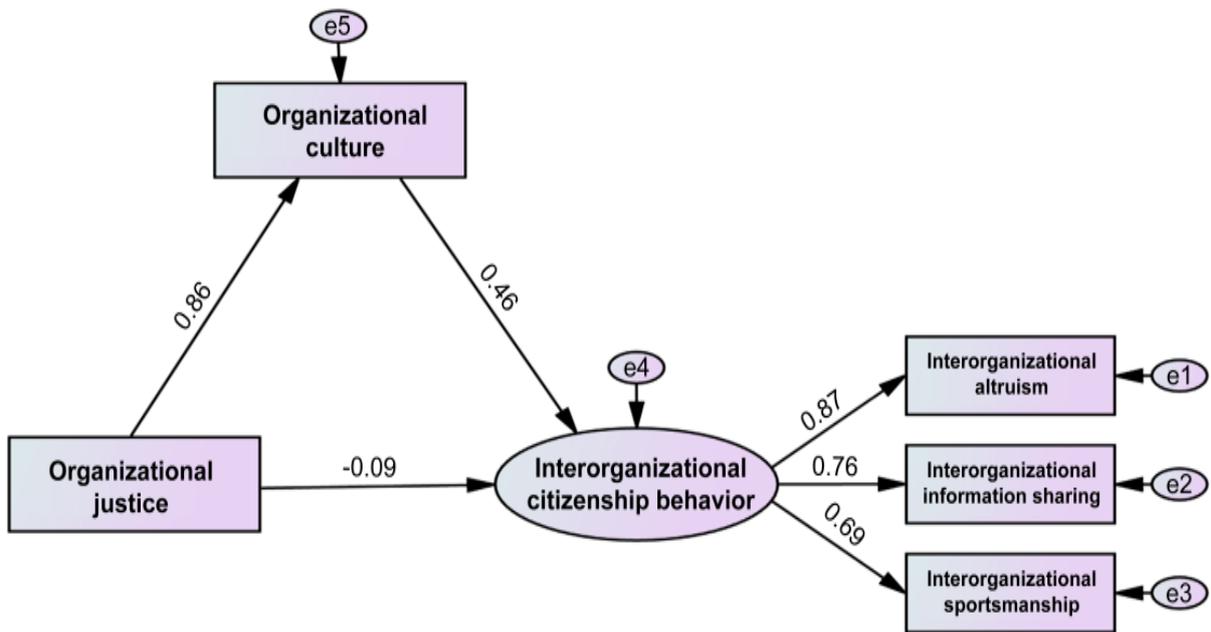


Figure 2. Mediating effect of organizational culture on the direct effect of organizational justice on interorganizational citizenship behaviors