Influences of HR Practices, Social Exchange, and Trust on Turnover Intentions of Public IT Professionals

Alper Ertürk[1]

Abstract

The purpose of this study is to explore the role of high-involvement human resource (HR) practices, perceived organizational support (POS), leader-member exchange (LMX), and organizational trust in lessening turnover intentions of information technology (IT) professionals working in Turkish public organizations. A total of 197 IT professionals participated in the study. The results indicate that POS fully mediates the relationships from (a) participation in decision making, (b) information sharing, and (c) fair rewards to turnover intentions; and partially mediates the relationship between recognition and turnover intentions. Moreover, it is also found that LMX fully mediates the association between information sharing and turnover intentions; and partially mediates the relationship between recognition and turnover intentions. In addition, it is yielded that trust in organization moderates the relationship between POS and turnover intentions, whereas trust in supervisor moderates the relationship between LMX and turnover intentions.

Keywords

HR practices, leader-member exchange, perceived organizational support, organizational trust, turnover intentions

Introduction

Governments and public-sector institutions worldwide are attempting to adopt and comprehend effective, transparent, and contributory administration measures. They are faced with the challenge of transformation and the need to reengineer

[1]Gebze Institute of Technology, Kocaeli, Turkey

Corresponding Author:
Alper Ertürk, Associate Professor of Management, Gebze Institute of Technology, Kavacik Kaptanlar mah. Ciftlik cad. No:17/4, Beykoz, Istanbul 34810, Turkey.
Email: draerturk@gmail.com

governmental processes and systems using information and communication technologies. The aim of this type of transformation is to (a) deliver quality public services in a faster, more efficient, and more cost-effective way; (b) develop economic and social strategies according to the demands and habits of citizens based on the information and knowledge gained through information technology (IT) applications; and (c) operate all the government organizations in a more cooperative and coherent manner (Şişman, Sesli, & Alkış, 2009; United Nations, 2004). By extensive use of innovative mobile- and web-based tools, such as e-government applications, public institutions at all levels have started to improve external collaboration, civic engagement, networking, and customer service, which result in quality and cost-effective public service delivery and better relationships between citizens and government (e.g., Modesitt, 2002). This increasing dependency on information and communication systems in public institutions increases competition between private and public organizations for well-trained and experienced IT employees (Kim, 2005).

Given the budgetary constraints and bureaucratic procedures, governments face the complex challenges of managing an effective public IT workforce, including recruitment, retention, and development strategies. Hence, retention of IT employees has become the most challenging human resource (HR) activity for all public institutions because of competition from the private sector, a declining interest in government work and the impending retirement of a significant percentage of their IT workforce (Kim, 2005; Şişman et al., 2009).

However, despite increased research on e-government and public sectors, limited attention has been paid to the identification of specific organizational context and job-related variables that affect IT employee retention in public institutions (Garson, 2003; Reid, Riemenschneider, Allen, & Armstrong, 2008). Moreover, most of those studies have been conducted in Western countries, such as the United States, although information systems are becoming more and more important for any public institution in the developing countries, such as Turkey.

Recent studies regarding the Turkish IT sector have also emphasized the high turnover rates and turnover intentions among IT professionals working in Turkish organizations in various sectors (Çalışır, Gümüşsoy, & Iskin, 2009, 2011; Kırmızı & Deniz, 2009). In the 2011-2016 IT Human Resource Strategy and Action Plan published by the Scientific and Technological Research Council of Turkey, retention of skilled and qualified IT HR was listed among the most important short- and medium-term problems that need to be resolved (TUBITAK, 2010). Furthermore, in a 2012 IT-sector study conducted by Interpromedya, in which 446 CEOs of IT-related companies in Turkey were surveyed, more than 70% of the CEOs reported that the most important challenge and critical success factor in the short and medium terms for the IT sector is the retention of highly skilled IT professionals (Interpromedya, 2012). These statistics suggest that current turnover research fails to capture important aspects of the process or that staff turnover is not explained by work-related factors alone, such as high salaries. Thus, those studies and surveys lead us to explore ways of lessening the turnover

intentions of IT employees via different HR practices and psychological constructs focused on interpersonal relationships and social exchanges.

Thus, in this article, we focused on Turkish IT employees working in public institutions because they represent a largely under-researched segment of the workforce. We take into consideration the fact that most of the Turkish public institutions have recently initiated several IT projects—including a wide variety of mobile- and web-based e-government applications, of which maintenance and developments are heavily dependent on IT professionals. So, the primary goal of this study is to identify variables that might have an impact on public IT employees' turnover intentions. Specifically, the associations among high-involvement HR management practices, perceived organizational support (POS), leader-member exchange (LMX), organizational trust (i.e., trust in organization [TIO] and trust in supervisor [TIS]), and the voluntary turnover intentions are investigated. We used a sample consisting of IT professionals working at Turkish public institutions. In addition, on the basis of the norm of reciprocity from social exchange theory, it is explored how IT employees reciprocate favorable treatment by investigating the mediating roles of the social exchanges, namely, POS and LMX, on the relationships between high-involvement HR practices and turnover intentions. Furthermore, it is also investigated how TIO and TIS enhance the effects of social exchange by moderating the relationships between LMX, POS, and turnover intentions.

This study mainly contributes to the HR management literature on several aspects. First, it is among the first studies to investigate how turnover intentions of IT employees in the Turkish public sector can be decreased. Second, previous research on turnover among IT personnel generally neglected the social aspects and interrelationships among employees as antecedents for turnover. Thus, this study is among the pioneer studies that combine the effects of HR practices, social exchanges (i.e., POS and LMX), and organizational trust (i.e., TIO and TIS) on turnover intentions, especially by exploring the simultaneous mediating role of POS and LMX. Being one of the very few studies that investigate the differentiated moderating role of TIO on POS and TIS on LMX, this study also contributes to the organizational trust literature from the perspective of the target similarity model approach (Lavelle, Rupp, & Brockner, 2007). Third, by considering LMX as one of the mediator components at the heart of the model, this study responds to calls for research on the integration of LMX with other variables to investigate its possible influence on the perceptions of the employees (Erdogan & Enders, 2007). Fourth, this study also responds to calls for research to study turnover intentions of IT professionals within different behavioral and cultural contexts (Ang & Slaughter, 2000; Ghapanchi & Aurum, 2011). While turnover models have been tested in many different types of firms, contextual factors may affect how these models work in a specific business environment. Different workplace attributes have been shown to be important antecedents of perceptions about the turnover of IT employees (Griffeth, Hom, & Gaertner, 2000). Thus, it is important to explore different models on how to decrease IT professionals' intentions to quit in a context-sensitive manner.

Finally, from a practical point of view, understanding the factors influencing the voluntary turnover intentions of IT employees may inform the creation of effective strategies for IT workforce management in public institutions. Moreover, this study contributes to an emerging literature on social exchange and HR management by expanding the scope and testing the proposed relationships within a different organizational and cultural context, which is largely under-researched.

IT Employees in Turkish Public Sector

Public sector and institutional tendency to invest in information and communication technologies is substantially increasing in Turkey and does not seem likely to decline in the next decade (Aydın, 2009). This increasing dependency of public institutions on IT created an important shortage of and need for IT professionals, and thus IT employees are becoming more and more critical resources of Turkish public institutions. Statistics about the public sector in Turkey have revealed that there will be about 20,000 IT-related open positions in the Turkish public institutions in 2011 to 2013, mostly because of several e-government initiatives and increasing usage of networking and database applications in the public sector (Aydın, 2009; Yenibiris, 2008). This increasing demand of governmental agencies for IT employees in Turkey result in ever greater IT staffing challenges, given the critical nature of what they do in public institutions.

Moreover, working conditions in public institutions in Turkey differ from those in the private sector. When compared with private-sector IT environments, Turkish public-sector IT departments often face a shorter planning horizon, are required to achieve quick results that can undermine long-term IT objectives, and are mostly influenced by political cycles. The considerable difference between the wages in the private and public sectors, and the latter's increased workloads and lack of flexibility regarding work schedules are among the most important reasons why IT professionals prefer private-sector work in Turkey (Aydın, 2009; Mastracci, 2009; Tansel, 1999). Research has demonstrated that the levels of employee job satisfaction and organizational commitment are much higher in the private sector than in the public sector (e.g., Baş & Ardıç, 2002).

Public-sector IT employees are under great pressure to perform in the workplace. They have the opportunity to move to the private sector because they typically possess easily transferable knowledge and skills. Mobility issues and working conditions pose potentially serious challenges for public-sector HR managers regarding the retention of IT employees (Thatcher, Stepina, & Boyle, 2003). In a recent study conducted on employees working in the public and private sectors in Turkey, it was revealed that about 86% of IT employees working for public institutions consider leaving, and prefer working in the private sector. This percentage is much higher than the average turnover intentions of IT employees working in the private sector (Yenibiris, 2008). However, recent sectoral reports have predicted that there will be about 80,000-100,000 IT-related open positions in the private sector in the next few years, which

means a substantial number of job alternatives that may lure IT professionals working in the public sector (Aydın, 2009).

A variety of aspects, such as a higher preference for the private sector, wage differences between private and public sectors and the urgent need for highly skilled and well-educated IT professionals in the private sector, make it a difficult challenge for Turkish public-sector HR managers to retain IT professionals. Recent research has revealed that if IT employees decide to work in public-sector organizations, it is likely that they do so partly because they are attracted by work conditions in the public sector (e.g., supportive organizational climate; Reid, Allen, Riemenschneider, & Armstrong, 2008). This leads us to explore whether the turnover intentions of IT employees working in public institutions can be lessened by applications of high-involvement HR practices, the support they receive from their organization and/or the quality of the exchange between them and their supervisors in their workplace.

Literature Review and Hypotheses

Cultural Context

Culture is a distinguishing characteristic that set societies apart from each other (House, Javidan, Hanges, & Dorfman, 2002). Although there have been several studies and theories in the management literature regarding organizational culture, Hofstede's (1980) cultural framework has been widely used and accepted as one of the most influential research among cultural studies. Hofstede (1980) states that culture is "the collective programming of the mind which distinguishes the members of one human group from another" (p. 25). Culture is a set of characteristics that inherently pass from one generation to another without discussion, thought, or action.

Original cultural framework of Hofstede (1980) consisted of four cultural value dimensions which are power distance, uncertainty avoidance, individualism–collectivism and masculinity–femininity (Hofstede, 1980). In his recent research, two dimensions were added to this framework. One is long- or short-term orientation (Hofstede & Hofstede, 2005) and the other is Indulgence versus Restraint (Hofstede, Hofstede, & Minkov, 2010).

> . . . Indulgence . . . [is] a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun . . . restraint, reflects a conviction that such gratification needs to be curbed and regulated by strict social norms. (Hofstede et al., 2010, p. 281)

Indulgence versus restraint dimension, as it is new, does not, as of yet, have sufficient data accumulated to be as significant in conclusions as the other dimensions.

If we explore the Turkish culture through the Hofstede's cultural framework with the latest six dimensions, we get a good understanding of the characteristics of culture dominating Turkish society. Scores of Turkey for the first four dimensions (i.e., Power Distance, Individualism, Masculinity, and Uncertainty Avoidance) were

obtained from the source by Hofstede (2001). The scores of the latest two dimensions (Long-term Orientation and Indulgence) were acquired from the recent work by Hofstede et al. (2010).

Turkey scores relatively high on the power distance dimension (score of 66 and the world average for this dimension is 55), which means that Turkey is more of a hierarchical society. Turkey seems to be a rather collectivistic society (score of 37 and the world average is 45), in which social/business relationships are formed more informally and individual rights are shaped and limited by the society. Turkey is more on the feminine side (score of 45 and the world average is 50) on the masculinity dimension, so that the softer aspects such as consensus and sympathy are valued and encouraged. Turkey scores high (score of 85 and the world average is 64) on the uncertainty avoidance dimension, meaning that the society and the Turkish business world do not like to take risk and uncertainties are preferred to be eliminated as much as possible.

Turkey stands just right in the middle of the long- or short-term orientation continuum (score of 46 and the world average is 45). Furthermore, Turkey scores 49 (the world average is 45) on the indulgence dimension, as Turkey, being also on the more collective and feminine side, shows more of a positive pattern in enjoying life.

However, Turkey has undergone a series of major changes concerning its economy since the 1980s as a developing country on the way of accession to the European Union. Such changes also contributed to the importance and development of human resource management (HRM) in Turkey. Turkish firms have gained substantial know-how on management and HRM systems through economic interactions with foreign counterparts in recent years and have begun to pay more attention to HRM topics (Aycan, 2001; Collings, Demirbag, Mellahi, & Tatoglu, 2010). HRM is a developing and promising field in Turkey. According to Aycan (2001), some Turkish firms follow the trends and popular HRM practices, although they have difficulties due to some of the "emic" characteristics of the societal and organizational cultures. Hence, it can be concluded that HRM has begun to be equally critical to organizational performance in Turkey, which has social, economic, as well as cultural characteristics that are somewhat distinct from those in Western industrialized societies.

As the cultural context, Turkey has some particular characteristics different from Western norms (Gürbüz & Mert, 2011). Trompenaars and Hampden-Turner (1998) provide that, among 39 nations, Turkey has the steepest hierarchy in its organization that indicates obedience of employees to its leaders. Turkish organizations are characterized by more paternalistic values described as family-type, whereby people in authority assume the role of a parent and show parental consideration toward their subordinates (Aycan, 2001). Turkish societal culture has been described as being high on power distance, uncertainty avoidance, collectivism, and femininity (Aycan, 2001; Fikret-Pasa, Kabasakal, & Bodur, 2001; Gürbüz & Mert, 2011; Hofstede, 1980; Kabasakal & Bodur, 1998). It has been known that all these salient cultural characteristics affect leadership behavior, organizational culture, and particularly HRM practices.

High-Involvement HR Practices

A growing body of research has already acknowledged that implementation of HR practices may enhance corporate financial performance (Huselid, 1995; Huselid, Jackson, & Schuler, 1997; Pare & Tremblay, 2007; Vandenberg, Richardson, & Eastman, 1999). Nevertheless, it has also been demonstrated that, instead of influencing organizational performance directly, HR practices help build intellectual capital that fosters organizational value creation (Pare & Tremblay, 2007; Youndt & Snell, 2004).

In this study, based on the conceptual framework proposed by Lawler (1986) and Appelbaum, Bailey, Berg, and Kalleberg (2000), and the empirical study by Pare and Tremblay (2007), we identified four distinct high-involvement HR practices that may influence employees' intentions of withdrawal from the organization: participation in decision making, information sharing, fair organizational rewards, and recognition practices.

Participation in decision making has been defined as the conferring of power and decision-making authority to lower level members of an organization. By adapting participation practices, organizations let employees assume several roles and responsibilities; therefore they can exert greater influence at work through increased autonomy (Appelbaum et al., 2000; Pare & Tremblay, 2007). *Information sharing* is one of the most effective ways to foster employee involvement and to help employees internalize organizational goals and values. It can enhance their feelings of mutual trust, and make them feel important (e.g., Lawler, 1986; Meyer & Allen, 1997; Rodwell, Kienzle, & Shadur, 1998). Moreover, sharing of information on such things as financial performance and organization strategy with employees conveys that they are trusted (Pfeffer & Veiga, 1999).

The need for *recognition* has been shown to be a fundamental driver of human motivation and behavior. For most highly skilled professionals, such as IT professionals, much of their motivation relies on the recognition they receive from managers for a job well done (Agarwal & Ferratt, 1999). In this study, recognition practices refer to non-monetary rewards through which an organization tangibly shows consideration and appreciation for quality work, suggestions, and achievements of IT professionals. *Fair organizational rewards* refer to the perceived fairness of various job outcomes, including compensation, performance evaluations, and job assignments. A high level of perceived equity signals to employees that the organization supports them and has their well-being at heart (Eisenberger, Huntington, Hutchinson, & Sowa, 1986; Lawler, 1986). Research has suggested that fair rewards enhance the feeling of being treated as a full member of the organization; in turn, employees are likely to reciprocate by demonstrating attitudes and behaviors beneficial to the organization (Allen, Shore, & Griffeth, 2003; Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Kerman & Hanges, 2002).

However, recent research has provided evidence that collectivism is the most dominant cultural value in Turkish organizations (Aycan et al., 2000; Fikret-Pasa et al.,

2001). Thus, in this research, we will test if those HR practices carrying individualistic characteristics are also effective in collectivistic cultures, such as Turkey.

High-Involvement HR Practices and Turnover Intentions

Several scholars found that HR practices play an important role in organizational effectiveness, such as by reducing turnover intentions (Pfeffer & Veiga, 1999; Vandenberg et al., 1999). In recent research, it has also been demonstrated that high-involvement HR practices are negatively associated with turnover intentions of IT professionals (Mastracci, 2009; Pare & Tremblay, 2007).

Researchers have also demonstrated that supportive HR practices in general, which are perceived as important signals of investment in employees and their development, are very important in reducing turnover and turnover intentions. Huselid (1995) proposes that high-performance HR practices contributing to the development or motivation of the employees would enhance employee retention, and demonstrates the negative association between these HR practices and organizational turnover rates. Other research has also provided supportive results regarding this relationship (Griffeth et al., 2000; Shaw, Delery, Jenkins, & Gupta, 1998). Furthermore, recent research has also revealed the lessening roles of greater autonomy and participation in decision making (Kim, 2005; Pare & Tremblay, 2007), fair rewards (Allen et al., 2003; Colquitt et al., 2001; Kerman & Hanges, 2002), information sharing and recognition (Agarwal & Ferratt, 1999; Pare & Tremblay, 2007; Pfeffer & Veiga, 1999) on employees' turnover intentions.

As aforementioned, employee participation in decision making, information sharing, recognition, and fair rewards are the HR practices that were proven to be most effective in individualistic cultures, as described by Hofstede (1980). How such HR practices would play out in the Turkish context still represents an interesting question.

Aycan and Fikret-Pasa (2000) call for organizations to provide more opportunities for empowerment to their employees and for more communication among their employees. Thus, the opportunity and the increased potential for employees to broaden their skills and to be involved in decision making means that empowerment should have a positive impact on employee skills and abilities. Also, according to a nationwide survey on leadership preferences in Turkey conducted by Aycan and Fikret-Pasa, a participative leadership style is found to be one of the most preferred leadership styles besides the charismatic and paternalistic leadership styles. Çakar and Ertürk (2010) also demonstrate that empowerment is proven to be effective in Turkish organizations. Moreover, although Turkish organizational culture is described high on power distance, it is also high in collectivism and assertiveness which emphasize the importance of communication (Aycan, 2001). Hence, we propose, in line with the Global Leadership and Organizational Behavior Effectiveness (GLOBE) research project findings (Javidan, Dorfman, de Luque, & House, 2006), that participation in decision making and information sharing would have negative influence on turnover intentions.

In collectivist cultures, employees tend to be motivated by team or organizational level compensations rather than individually based one. However GLOBE project suggests an alternative perspective. Javidan et al. (2006) propose that individuals seek and value what they do not have. This is particularly important as the young and well-educated workforce in Turkey have aspirations and preferences more aligned with their Western counterparts (Aycan & Fikret-Pasa, 2000). Although it seems against the cultural grains in Turkey which value seniority over merit, Acar and Özgür (2004) report a positive association between merit-based promotion and performance in Turkish public firms. Finally, we believe that recognition helps public organizations retain highly skilled IT employees.

Chiang and Birch (2007) note that cultural background has a distinct impact on how reward preferences are allocated. Erez (1994) suggests that the rule of equality is more valued in group-oriented, collectivistic cultures. In feminine societies employees strive for consensus and equality. Simola (2003) also notes that feminine perspectives are more likely to be concerned with fairness. As the Turkish organizations have more feminine cultural characteristics (Aycan, 2001; Hofstede, 1980), we expect that fair rewards would have a lessening effect on turnover intentions of IT employees in Turkey.

In light of the arguments presented above, we hypothesize the following:

Hypothesis 1: High-involvement HR practices (participation in decision making, information sharing, recognition practices, and fair rewards) will be negatively associated with turnover intentions.

POS and LMX

Social exchange theory (Blau, 1964), which has been applied in management, provides a basis for understanding the roles that organizations and managers play in creating feelings of employee obligation, such as intentions to stay with the organization (Wayne, Shore, Bommer, & Tetrick, 2002). In the recent organizational psychology literature, social exchange theory has been increasingly adopted to investigate relationships between the organization, supervisors, and subordinates. It is generally represented in two different ways: LMX and POS (Eisenberger et al., 1986, Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Hutchison, 1997; Liden, Sparrowe, & Wayne, 1997; Wayne, Shore, & Liden, 1997). In general terms, LMX focuses on the quality of exchange between the employee and the manager, while POS focuses on the exchange relationship between the employee and the organization. Recent studies integrating these literatures have also demonstrated that POS and LMX are two distinct constructs and differentially related to employee attitudes and behaviors (Masterson, Lewis, Goldman, & Taylor, 2000; Wayne et al., 2002; Wayne et al., 1997).

LMX can be defined as an indication of the quality of a worker's social exchange relationship with his or her supervisor (Liden et al., 1997). LMX relationships involve the exchange of information and socio-emotional resources (e.g., respect, loyalty,

etc.). The greater the exchange of these resources, the higher the quality of the LMX relationship would be (Wayne et al., 1997). High-quality LMX relationships are usually characterized by high levels of mutual trust that can strengthen employee–organization integration.

However, POS has been conceptualized as employees' general perception of the degree to which the organization values their contributions and cares about their well-being (Eisenberger et al., 1986). Employees who receive high levels of support from the organization are inclined to repay the organization. One essential way to reciprocate the organization's favorable treatment is through continued membership (e.g., Allen et al., 2003); thus employees who receive more support as part of the inducements offered by the organization would have less desire to leave the organization.

Mediating Roles of POS and LMX

High-involvement HR practices are important for the development of social exchange between the employees and their organization/supervisors. For example, recognition of employees, which the organization is not obligated to offer to everyone, is an important indicator that the organization values employees' contributions (Eisenberger et al., 1986). Similarly, employee participation, fair rewards, and sharing information should signal that the organization is willing to invest in its employees and that they are also valued by their supervisors (Rhoades & Eisenberger, 2002). However, employees in organizations that do not involve them would have less access to resources and information and have inadequate participation in decision making. Therefore, they would probably feel less socio-emotional support (POS), would not feel part of the work group, and would not report spending time on relationships with their colleagues and supervisors (LMX). Hence,

> **Hypothesis 2:** High-involvement HR practices (participation in decision making, information sharing, recognition, and fair rewards) will be positively associated with POS.
> **Hypothesis 3:** High-involvement HR practices (participation in decision making, information sharing, recognition, and fair rewards) will be positively associated with LMX.

In turn, employees perceiving higher levels of support from their organization and their supervisors are expected to reciprocate with higher levels of commitment to stay and lower levels of intention to leave (Allen et al., 2003; Randall, Cropanzano, Bormann, & Birjulin, 1999). The concept of reciprocity indicates that employees tend to feel obligated to help those who have helped them and to repay benefits and opportunities offered by the organization. Thus, individuals who perceive greater support from their organization and their supervisors would be more likely to feel obligated to repay the organization and would be less likely to seek alternative employment opportunities or to leave the organization (Allen et al., 2003).

Research has yielded strong support for the negative association between POS, LMX, and turnover intentions and proposes that high-level POS and high-quality LMX play important roles in reducing voluntary turnover and turnover intentions (Allen et al., 2003; Eder & Eisenberger, 2008; Harris, Kacmar, & Witt, 2005; Reid, Allen, et al., 2008; Rhoades & Eisenberger, 2002; Vecchio & Norris, 1996; Wayne et al., 1997).

Mediating roles of POS and LMX on the relationship between HR practices and organization-related outcomes, such as turnover intentions, are also supported by several studies (e.g., Allen et al., 2003; Masterson et al., 2000; Wayne et al., 2002). Consequently, high-involvement HR practices are most likely to increase the perception of organizational support and quality exchange with the supervisor. In turn, intentions of resigning among employees would decrease because individuals tend to respond positively to POS and the quality LMX with their supervisors.

Research has revealed that social exchanges (i.e., POS and LMX) have important influences on the positive work-related attitudes and behaviors in Turkish organizations (e.g., Çakar & Yıldız, 2009; Erdogan, Kraimer, & Liden, 2004; Erdogan, Liden, & Kraimer, 2006). Research has also found that the most common cultural characteristic in Turkish organizations is collectivism and femininity (Aycan, 2001). As collective norms, relationships, and social exchanges are important characteristics of collectivism and femininity, it seems plausible to expect that POS and LMX would play a mediating role for Turkish IT professionals. In those studies, it was shown that Turkish employees generally respond to the care, support, and social exchanges of their supervisors by showing loyalty, deference, and compliance to him or her as well as a higher degree of commitment to their organizations.

Hence, based on the above arguments, we hypothesize the following:

Hypothesis 4a: POS will be negatively associated with turnover intentions.
Hypothesis 4b: LMX will be negatively associated with turnover intentions.
Hypothesis 5a: POS will mediate the relationship between high-involvement HR practices and turnover intentions.
Hypothesis 5b: LMX will mediate the relationship between high-involvement HR practices and turnover intentions.

Moderating Role of Organizational Trust

Organizational trust was defined as

> the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other party will perform a particular action important to the trust or irrespective of the ability to monitor or control that other party. (Mayer, Davis, & Schoorman, 1995, p. 712)

Trust is an essential element in positive human relationships. It creates a collaborative environment and gives people a feeling of security and attachment (Mishra &

Morrissey, 1990). Trust is the key facilitator of integration between the employee's relationship to the organization and to his or her supervisor, that is, POS and LMX. Prior research supports these linkages of employee trust to positive workplace attitudes, such as increased affective commitment, greater job satisfaction, and thus decreased intentions to quit (Costigan, Ilter, & Berman, 1998; Dirks & Ferrin, 2001; Perry, 2004; Straiter, 2005).

Trust occurs not only at the interpersonal but also at the organizational levels. It was suggested that employee trust in a supervisor and in the organization as a whole constitutes the concept of organizational trust (Nyhan & Marlowe, 1997). Trust in the organization (TIO) is a separate construct from the trust in a supervisor (TIS); that latter trust is formed based on the immediate and daily contact of an employee with his or her supervisor. Empirical research provides clear data on the distinctiveness of TIO and TIS, each with its own set of antecedents and consequences (e.g., Stinglhamber, Cremer, & Mercken, 2006; Tan & Tan, 2000). Previous research findings have also revealed that TIS is more strongly associated with proximal variables, such as LMX, whereas TIO is more strongly correlated with global variables, such as POS; this is also suggested in the target similarity model (e.g., Lavelle, McMahan, & Harris, 2009; Lavelle et al., 2007).

Trusting relationships among the employees and the supervisors form a strong foundation for the achievement of other managerial practices, relationships and social exchanges, such as high-involvement HR practices, POS and LMX. In the absence of trust, no organizational attempt to foster employees' attachment to the organization will be effective or successful. Trust is considered the fundamental social glue of long-term employee attachment to their organization (Atkinson & Butcher, 2003). Furthermore, examining many firms, Andrews (1994) claims that the lack of trust within an organization is a key element of failure, forming a hidden and invisible barrier preventing HR practices and efforts from resulting in success. Andrews also states that trust between employees and managers creates a distinctive atmosphere for HR practices and social exchanges to reach the intended goals.

Supporting the moderating role of TIOs, recent research proposes trust as a moderator on different associations among a variety of organizational variables, such as between individual-job congruence and performance (Goris, Vaught, & Pettit, 2003), conflict and decision outcomes (Parayitam & Dooley, 2007), empowerment and identification (Ertürk, 2010), satisfaction and retention (Ranaweera & Prabhu, 2003), and motivation and performance (Dirks, 1999).

Research has also provided evidence for the intervening role of trust in Turkish organizations (e.g., Ertürk, 2007, 2010). For collectivistic cultures, trust constitutes the basis of all relationships and exchanges for employees, who attribute more importance to the group's benefit than their own (Farh & Earley, 1997). Unsurprisingly, those studies provided support for the idea that TIO and TIS play crucial roles for Turkish employees and have substantial influence on their work-related attitudes and behaviors (Çakar, 2008; Ertürk, 2010). In this research, it is also expected that organizational trust would play an intervening influence on the relationship between social exchanges and turnover intentions of Turkish IT professionals.

As TIO provides the essential basis for the interactions of an employee with the organization, it can be proposed that employees' high TIO would reinforce the relationship between POS and turnover intentions, because employees would expect that their behaviors will be more easily observed and recognized by their organizations in a well-established interaction setting. Similarly, as LMX is a relationship between the supervisor and his or her subordinates, any pre-existing trust relationship between the employee and the supervisor will also have an impact on the success of a high-quality LMX relationship. Thus, we posit that the higher the degree of TIS, the stronger will be the social exchange relationship that exists between the employee and the organization. Taking into consideration the differentiated relations of TIO and TIS with POS and LMX, we hypothesize the following:

Hypothesis 6a: TIO will moderate the relationship between POS and turnover intentions in such a way that high levels of TIO will strengthen the negative relationship between POS and turnover intentions.
Hypothesis 6b: TIS will moderate the relationship between LMX and turnover intentions in such a way that high levels of TIS will strengthen the negative relationship between LMX and turnover intentions.

Method

Sample and Procedure

To test our research hypotheses, a self-reported survey was administered to IT professionals who work for eight different public institutions in Kocaeli, Turkey. As there is not any large-scale public organization which employs great numbers of IT professionals, eight mid-size public organizations in Kocaeli, Turkey, which vary in terms of size, sector, and the number of employees, were randomly selected. Sectors of those organizations include public education, public service, social security, and communication and media.

Data were acquired via a structured questionnaire. All measurements included in the questionnaire were originally developed in English and translated into Turkish via the back-translation technique (Brislin, 1980). Prior to administering the questionnaire, we conducted a pilot study, which revealed that the scales were easily understood by public IT employees. The data were collected on-site, during work hours and in the presence of our research assistant. Before handing out the questionnaires, our research assistant explained the purpose of the survey and noted that participation was voluntary. Furthermore, each questionnaire was also accompanied by a cover letter to assure the participants of the confidentiality of their responses. Respondents were asked to return the completed questionnaires directly to the research assistant to ensure their anonymity.

Of the 426 questionnaires distributed on-site, 204 completed questionnaires were returned with a response rate of 48%. After deleting records with missing cases, 197 questionnaires remained and constituted the sample for this study. Eighty-two percent

of the respondents were between 25 and 40 years old, and 80% of them were male. Moreover, 68% of the respondents were married. Also, 73.6% of the respondents have worked for their organizations more than 2 years and 89.3% have at least a BSc degree from a university. No other personal data were collected. According to the IT employee research report conducted by the Association of Turkish IT Sector in 2012 (Tubider, 2012), 65% of all IT employees are male, 75% have at least a BSc degree, about 80% of IT employees are employed in their current jobs for more than 2 years. Thus, one can conclude that demographics of our study fairly reflect the general demographic structure of Turkish IT workforce.

None of the respondents were holding managerial positions in their respective organizations. Breakdown of the 197 respondents based on their respective organizations are as follows: 72 from public education institutions, 48 from public service organizations, 41 from social security institutions, and 36 from public communication and media organizations. Furthermore, classification of the respondents based on their professions (Noll & Wilkins, 2002) is as follows: 27 network and system administrators, 34 user support specialists, 19 software applications engineers, 14 web developers, 26 database administrators, 24 desktop publishers, 23 hardware specialists, 11 security experts, 6 systems analysts, and 13 team leaders.

To discern the representativeness of the respondents with respect to the total sample, the first and last quartiles of responses were compared, given that late respondents are deemed potentially similar to non-respondents (Lambert & Harrington, 1990). The chi-square and two-tailed independent-sample *t* tests did not reveal any significant differences in the demographics and the study variables, so non-response bias did not appear to be a concern for our study. In addition, ANOVA tests were conducted to compare the means of study variables and demographics among the participants regarding the type of profession, type of organizations, and the size of organizations. No significant differences were found suggesting that there was no statistically significant difference among participants in terms of their demographics and the study variables regarding their levels of responsibilities, size, and the sector of the organizations in which they were employed. These comparisons suggest that sampling bias, although not completely discounted, was not a major problem.

Measures

All constructs were measured with scales adapted from existing scales. All items except the LMX-7 scale were measured on a 5-point Likert-type scale, where 1 = *strongly disagree* and 5 = *strongly agree*. Mean scale scores were calculated for all measures. Cronbach's alpha was used to estimate reliability for scales.

High-involvement HR practices. High-involvement HR practices, which consist of participation in decision making, information sharing, recognition, and fair rewards, were measured with the scales adapted from Pare and Tremblay (2007), Allen et al. (2003), and Wayne et al. (2002). Participation in decision making was measured by

a three-item scale. A sample item from this scale is: "I am allowed to participate in decisions regarding my job." Information sharing was measured with a three-item scale. A sample item from this scale is "Employees are regularly informed of future organizational projects." Recognition was measured by a three-item scale. A sample item is "In my organization, employees receive written recognition from their supervisors for their effort." Fair rewards was measured with a three-item scale, of which a sample item is "I am rewarded fairly for the amount of effort I put in." Alpha reliabilities of those scales are .84, .89, .94, and .86, respectively.

POS. Employees' perceptions regarding the amount of support that they receive from their organization were measured with six high-loading items of Eisenberger et al.'s (1986) 36-item Survey of Perceived Organizational Support (SPOS). The six-item scale has been shown to be unidimensional with internal reliability estimates (Cronbach's α) of .90 and higher (Hutchinson, 1997). Sample items from the scale are "My organization cares about my opinions" and "My organization values my contribution to its well-being." Alpha reliability of this scale was calculated as .92.

LMX. The subordinate's perception of the LMX relationship was measured using the LMX-7 (Graen & Uhl-Bien, 1995; Scandura & Graen, 1984). The LMX-7 is a unidimensional scale that includes seven items. A sample item is "How well do you feel that your immediate supervisor understands your problems and needs?" with a response scale from 1 = *not at all* to 5 = *completely*. Note that the response anchors differ with each item (for the exact measure, see Scandura & Graen, 1984). Alpha reliability for the seven-item measure in the current study was .91.

TIO. Employees' trust in their organizations was measured using a four-item measure adapted from the scale originally developed by Nyhan and Marlowe (1997). Example items from this scale are "I trust in my organization that this organization will treat me fairly" and "I have confidence that people in this organization trust each other." Scores could range from 1 to 5, with 5 indicating strong levels of trust for one's supervisor. Alpha reliability for this scale was .89.

TIS. Employees' trust in their supervisors was measured using an eight-item measure adapted from the scale originally developed by Nyhan and Marlowe (1997). Example items from this scale are "I trust in my supervisor that I can rely on what he or she says" and "I have confidence that my immediate supervisor is competent at his or her job." Scores could range from 1 to 5, with 5 indicating strong levels of trust for one's supervisor. Alpha reliability for this scale was .87.

Turnover intentions. Turnover intentions was tapped by a four-item scale, used and tested by Abrams, Ando, and Hinkle (1998). Turnover intentions scale included items such as "In the next few years I intend to leave this company" and "I think about leaving this company very often." The alpha reliability of this scale was .91.

Common Method Variance

The common method variance is a potential source of measurement error that may create a serious threat for the validity of conclusions about the associations among measures (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Because all data in this study are self-reported and collected through the same questionnaire during the same period of time with cross-sectional research design, the findings are not immune to common method variance. This may cause systematic measurement error and further bias the estimates of the true relationship among theoretical constructs (Podsakoff et al., 2003; Podsakoff & Organ, 1986).

Harman's one-factor test and confirmatory factor analysis (CFA), and further post hoc statistical tests, were conducted to test the presence of the common method effect. All nine variables (participation in decision making, information sharing, recognition, fair rewards, POS, LMX, TIO, TIS, and turnover intentions) were entered into an exploratory factor analysis, using unrotated principal components factor analysis, principal components analysis with varimax rotation, and principal axis analysis with varimax rotation. This procedure was used to determine the number of factors necessary to account for the variance in the variables. If a substantial amount of common method variance is present, either (a) a single factor will emerge from the factor analysis, or (b) one general factor will account for the majority of the covariance among the variables (Krishnan, Martin, & Noorderhaven, 2006; Podsakoff et al., 2003; Podsakoff & Organ, 1986). Moreover, all nine variables were loaded on one factor to examine the fit of the CFA model. If common method variance is largely responsible for the relationship among the variables, the one-factor CFA model should fit the data well.

The unrotated principal components factor analysis, principal components analysis with varimax rotation, and principal axis analysis with varimax rotation all revealed the presence of nine distinct factors with eigenvalues greater than 1.0, rather than a single factor. Consistent with the expectation, all items loaded with high-standardized coefficients on their respective factors and with substantially lower standardized coefficients in other factors. The nine factors together accounted for 82.8% of the total variance; the first (largest) factor did not account for a majority of the variance (19.6%). Thus, no general factor is apparent. In addition, the CFA showed that the single-factor model did not fit the data well; $\chi^2 = 2442.03$, $p < .01$, $df = 350$; $\chi^2/df = 6.97$ (>3); comparative fit index (CFI) = 0.47, goodness-of-fit index (GFI) = 0.35, non-normed fit index (NNFI) = 0.44, root mean square error of approximation (RMSEA) = 0.19. Although the results of Harman's one-factor test and the single-factor CFA do not completely preclude the possibility of common method variance, they do suggest that common method variance is not of great concern and thus is unlikely to distort the interpretation of results.

Multicollinearity Tests

Before going further with regression analyses, multicollinearity tests were also performed. The statistics generally used to test for collinearity are the variance inflation

factor (VIF) and the condition index (CI). The VIF is an index of the degree of inflation of the variance of parameter estimates that results from the correlation between two predictor variables; variances that are too high can result in unstable parameter estimates. A VIF larger than 10.0 is the generally accepted value indicating a problem of collinearity (Hair, Anderson, Tatham, & Black, 1992; Kleinbaum, Lawrence, Muller, & Nizam, 1998). In our study, VIFs ranged from 1.65 to 4.21, well below the threshold value of 10.0.

In addition, CI is also used to test for the presence of collinearity. The CI is an index of the dependency of one variable on the others. Thus, like the VIF, large CIs (>30) indicate inflation in the standard error of the parameter estimate of a variable (Tebachnick & Fidell, 2001). Fortunately, in the present sample, the largest CI was 9.48; thus, there is no need to examine variance proportions. Together, these two collinearity diagnostics indicate no major problem associated with multicollinearity in the present data.

Factor Analyses

To better demonstrate the validity and reliability of factor structures, both exploratory factor analysis (EFA) (using SPSS 11.0) and confirmatory factor analysis (CFA) (using AMOS 7.0) were performed on the samples. Prior to the estimation of the confirmatory measurement model, exploratory factor analyses are conducted to assess unidimensionality. In each of these analyses, a single factor is extracted (using a cutoff point of eigenvalue = 1), suggesting that our measurement scales are unidimensional. Next, consistent with our measurement theory, 12 items measuring the high-involvement HR practices (participation in decision making, information sharing, recognition, and fair rewards) are hypothesized to load on four distinct factors in the measurement model. In addition, 6 items measuring POS, 7 items measuring LMX, 4 items measuring TIO, 8 items measuring TIS and 4 items measuring turnover intentions are averaged to create composite indicants for each of these formative measures, which are then posited to load on five distinct factors in the measurement model. Alpha reliabilities for the scales ranged from .84 to .94 and factor loadings of items varied from .59 to .91. Means, standard deviations, alpha reliabilities, and intercorrelations among the established measures are depicted in Table 1.

CFA

Next, CFA was estimated on 41 items measuring nine constructs, namely, participation in decision making, information sharing, recognition, fair rewards, POS, LMX, TIO, TIS, and turnover intentions. In addition, we also checked the measurement properties of the variables by comparing the baseline model with alternate models.

Suggested nine-factor model resulted in a significant chi-square statistic, and GFIs suggest that the model fits the observed covariances well ($\chi^2 = 684.5$, $p < .01$, $df = 357$, $\chi^2/df = 2.08$, CFI = 0.91; GFI = 0.90; NNFI = 0.86; RMSEA = 0.06). In addition, all items load significantly on their respective constructs (with the lowest t value

Table 1. Descriptive Statistics, Reliabilities, and Correlations.

	M	SD	PDM	FR	IS	REC	POS	LMX	TIO	TIS	TI
PDM	3.92	0.28	.84a								
FR	3.26	0.32	.19**	.86a							
IS	3.42	0.35	.28**	.18**	.89a						
REC	3.78	0.17	.23**	.38**	.31**	.94a					
POS	3.65	0.24	.24**	.34**	.47**	.42**	.92a				
LMX	3.33	0.41	.18*	.22*	.41**	.46**	.36**	.91a			
TIO	3.03	0.23	.20**	.26**	.29**	.24**	.38**	.19**	.89a		
TIS	3.12	0.26	.22**	.16*	.21**	.18*	.26**	.34**	.44**	.87a	
TI	2.51	0.32	−.21*	−.17*	−.14*	−.38**	−.45**	−.26**	−.20**	−.23**	.91a

Note. PDM = participation in decision making; FR = fair rewards; IS = information sharing; REC = recognition; POS = perceived organizational support; LMX = leader-member exchange; TIO = trust in organization; TIS = trust in supervisor; TI = turnover intentions.
aCronbach's alpha reliabilities.
*Correlation is significant at the .05 level.
**Correlation is significant at the .01 level.

Table 2. Model Fit Indices.

	χ^2	df	χ^2/df	CFI	GFI	NNFI	RMSEA
$M_{proposed}$	134.76**	1	134.76	0.71	0.75	0.68	0.19
$M_{revised}$	2.82	7	0.41	0.98	0.98	0.96	0.02

Note. CFI = comparative fit index; GFI = goodness of fit index; NNFI = non-normed fit index; RMSEA = root mean square error of approximation.
**Statistic is significant at the .01 level.

being 9.59), providing support for the convergent validity of measurement items. Finally, discriminant validity is obtained for all constructs, because the variance extracted for each construct is greater than its squared correlations with other constructs (Fornell & Larcker, 1981).

Tests of Hypotheses

The path coefficients were estimated by linking the study constructs, using the structural equations modeling (SEM) methodology in AMOS 7.0. First, the proposed model was separately tested ($n = 197$). The chi-square statistics and the overall model fit statistics for the proposed model are summarized in Table 2.

The chi-square statistics obtained from the estimation of the proposed model are significant ($\chi^2 = 134.76$, $p < .01$, $df = 1$). Also, according to the GFIs ($\chi^2/df = 134.76$, CFI = 0.71; GFI = 0.75; NNFI = 0.68; RMSEA = 0.19), the model is statistically rejected. After evaluating the model and eliminating the insignificant paths between the variables, a revised model was obtained. The chi-square statistics obtained from the estimation of the revised model are insignificant ($\chi^2 = 2.82$, $p > .1$, $df = 7$), and the

Table 3. Parameter Estimates.

Hypothesis	Hypothesized path	Parameter estimate	*t* value	Explanation
H1a	PDM → TI	−0.05	−0.89	Not supported
H1b	FR → TI	−0.04	−0.67	Not supported
H1c	IS → TI	−0.03	−0.33	Not supported
H1d	REC → TI	−0.22	−3.41**	Supported
H2a	PDM → POS	0.19	2.80**	Supported
H2b	FR → POS	0.21	2.98**	Supported
H2c	IS → POS	0.27	4.04**	Supported
H2d	REC → POS	0.32	4.49**	Supported
H3a	PDM → LMX	0.08	1.23	Not supported
H3b	FR → LMX	0.06	0.72	Not supported
H3c	IS → LMX	0.18	3.98**	Supported
H3d	REC → LMX	0.41	8.15**	Supported
H4a	POS → TI	−0.37	−4.54**	Supported
H4b	LMX → TI	−0.28	−3.78**	Supported

Note. PDM = participation in decision making; TI: turnover intentions; FR = fair rewards; IS = information sharing; REC = recognition; POS = perceived organizational support; LMX = leader-member exchange.
**Parameter estimate is significant at the .01 level.

GFIs (χ^2/df = 0.41, CFI = 0.98; GFI = 0.98; NNFI = 0.96; RMSEA = 0.02) suggest a good model fit.

The parameter estimates for the hypothesized paths and the results regarding the hypotheses are provided in Table 3. The results suggest that participation in decision making is positively related to POS (β = .19, p < .01), while there is no statistically significant relationship found between participation in decision making and LMX or turnover intentions. Similarly, fair rewards are positively related to POS (β = .21, p < .01), whereas no significant relationship has been revealed between fair rewards and LMX or turnover intentions. Information sharing is positively related to both POS (β = .27, p < .01) and LMX (β = .18, p < .01); however, no significant relationship was revealed between information sharing and turnover intentions. Recognition, however, is found to be positively associated with POS (β = .32, p < .01) and LMX (β = .41, p < .01), as well as negatively associated with turnover intentions (β = −.22, p < .01).

Results have also yielded that the link from LMX to POS (β = .08, p > .05), and the link from POS to LMX (β = .11, p > .05) are found to be insignificant. Furthermore, both POS (β = −.37, p < .01) and LMX (β = −.28, p < .01) are found to be negatively associated with turnover intentions.

The final revised model illustrating the significant relationships among constructs is presented in Figure 1.

Examination of Mediating Roles of POS and LMX

Results of the aforementioned SEM analysis revealed a mediating effect of POS and LMX on the relationship between HR practices and turnover intentions. Thus, to
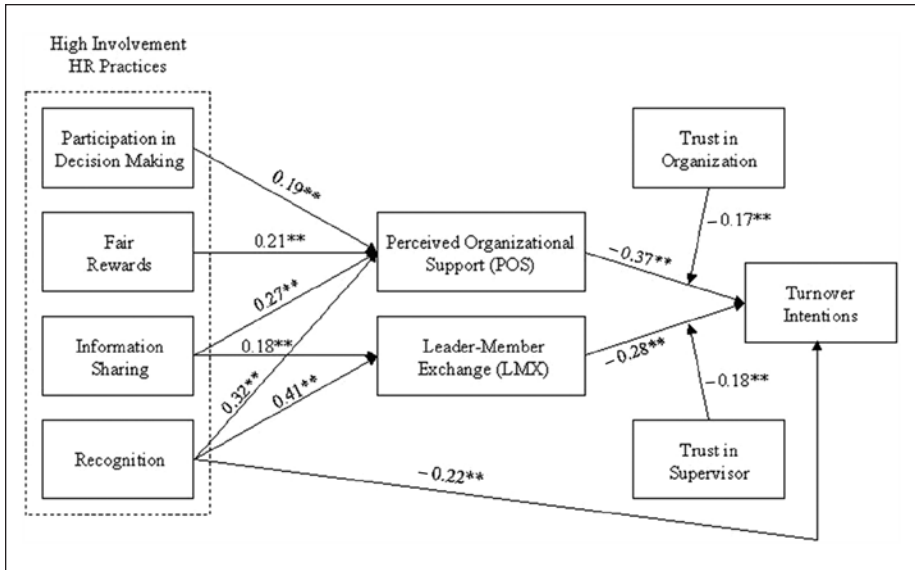
Figure 1. Final revised model (only significant hypothesized relationships are presented).
Note. HR = human resource. **p < .01

confirm and support this finding, we performed the Sobel test by using the automated web-based Sobel test available on the Internet (Web-Based Sobel Test, 2010). The purpose of the Sobel test is to examine whether the mediator carries the influence of an independent variable to a dependent variable (Sobel, 1982). The Sobel's *t* value must be adequately large, yielding a *p* value of less than .05, for significant mediation to be identified. What this means for this study is that the association between independent variables (high-involvement HR practices; namely, participation in decision making, information sharing, recognition, and fair rewards) and the dependent variable (turnover intentions) has been significantly reduced by the inclusion of the mediating variables (POS and LMX).

In our Sobel test, calculated *t* values for the independent variables varied from 5.56 to 8.32 (*p* < .05) for the mediation of POS and varied from 3.27 to 6.54 for the mediation of LMX on the relationship between high-involvement HR practices and turnover intentions. Therefore, the full mediating effect of POS on the links between turnover intentions and (a) participation in decision making, (b) information sharing, and (c) fair rewards was significant; the partial mediating effect of POS on the relationship between recognition and turnover intentions was also found to be significant. Moreover, the full mediating effect of LMX on the link from information sharing to turnover intentions was significant; the partial mediating effect of LMX on the relationship between recognition and turnover intentions was also significant. As no statistically significant relationship was revealed between participation in decision making or fair rewards and LMX, no mediating effect was found on the associations of those HR practices with turnover intentions.

Examination of Moderating Role of Trust

Moderation hypotheses were tested using hierarchical moderated regression analysis (Cohen & Cohen, 1983). Although the multicollinearity was tested for the data by VIF and CI analyses as reported earlier, the multicollinearity issue could still be raised because of the nature of multiple regression analysis. As multiple regression analysis engages interactions, the main effect terms and the product terms could be highly correlated. This situation could make the regression coefficients unstable and hard to interpret (Cohen & Cohen, 1983). Thus, as suggested by Aiken and West (1991), we first centered our data and used centered variables in our analysis, because interactional analysis using the centering procedure reveals coefficients that are relatively unaffected by multicollinearity. We also plotted the significant interactions as graphs to facilitate the interpretation of moderator effects.

To investigate the hypotheses, we performed a hierarchical step-by-step regression analysis developed by Cohen and Cohen (1983), in which turnover intentions was the dependent variable. The centered independent variables were introduced into the equation in four successive steps (Aiken & West, 1991; Cohen & Cohen, 1983). In Step 1, HR practices, namely, participation in decision making, fair rewards, information sharing, and recognition were introduced to the equation; in Step 2, POS and LMX were introduced. Next, in Step 3, the moderator variables (TIO and TIS) were introduced; in Step 4, the two-way interactions (POS × TIO, POS × TIS, LMX × TIO, and LMX × TIS) were entered into the equation one at a time. Results of the regression analysis are presented in Table 4.

Following Aiken and West (1991), the simple slopes were estimated for respondents with higher TIO (i.e., one standard deviation above the mean) and respondents with lower TIO (i.e., one standard deviation below the mean) to determine the nature of the POS × TIO interactions. In line with the proposed hypothesis, POS was strongly and negatively related to turnover intentions for respondents with higher TIO ($b = -2.25$, $p < .01$), while the relationship between POS and turnover intentions was weaker for employees with lower TIO ($b = -0.83$, $p < .05$). Similarly, LMX was negatively related to turnover intentions for respondents with higher TIS ($b = -1.12$, $p < .01$), while the relationship between LMX and turnover intentions was weaker and statistically insignificant for employees with lower TIS ($b = -0.24$, $p > .05$). These findings supported Hypotheses 6a and 6b. Nevertheless, the interactions between POS and TIS and between LMX and TIO were not found to be statistically significant ($p > .05$) as expected.

To graphically depict the statistically significant interactions between POS and TIO and between LMX and TIS, several steps were performed following the procedure laid out by Aiken and West (1991) and Jaccard, Turrisi, and Wan (1990). First, low and high levels for moderator variables (e.g., TIO and TIS) were calculated. Values of the moderator variables were chosen at one standard deviation above the mean for high levels and one standard deviation below the mean for low levels. Simple slopes and regression equations (turnover intentions is the dependent variable; POS and LMX are dependent variables—predictors) were then solved for each level of the moderator

Table 4. Parameter Estimates for Moderating Effect of Organizational Trust.

	Dependent variable TI			
	Step 1	Step 2	Step 3	Step 4
Independents	β (T)	β (T)	β (T)	β (T)
Step 1				
PDM	−.14** (−2.98)	−.05 (−0.89)	−.05 (−0.89)	−.05 (−0.83)
FR	−.11* (−2.43)	−.04 (−0.67)	−.04 (−0.67)	−.04 (−0.67)
IS	−.12* (−2.54)	−.03 (−0.33)	−.03 (−0.33)	−.03 (−0.31)
REC	−.28** (−4.34)	−.22** (−3.41)	−.22** (−3.41)	−.22** (−3.40)
Step 2				
POS		−.37** (−4.54)	−.37** (−4.32)	−.37** (−4.32)
LMX		−.28** (−3.98)	−.28** (−3.79)	−.28** (−3.79)
Step 3				
TIO			−.27** (−3.80)	−.27** (−3.80)
TIS			−.14* (−2.12)	−.14* (−2.16)
Step 4				
POS × TIO				−.17** (−3.11)
POS × TIS				−.08 (−1.12)
LMX × TIO				−.04 (−0.69)
LMX × TIS				−.18** (−3.36)
F	27.76**	33.48**	36.56**	38.44**
R^2	.24	.28	.30	.31
Adjusted R^2	.22	.27	.28	.29

Note. TI: turnover intentions; PDM = participation in decision making; FR = fair rewards; IS = information sharing; REC = recognition; POS = perceived organizational support; LMX = leader-member exchange; TIO = trust in organization; TIS = trust in supervisor.
*$p < .05$. **$p < .01$.

(Aiken & West, 1991). The obtained regression lines for high and low values of the moderator variable were then plotted to determine whether there is a lessening or enhancing effect. Next, we computed the slopes from beta coefficients derived from regression equations that adjust the interaction term to reflect different values of the moderator (low scores were defined as one standard deviation below the means and high scores represent one standard deviation above the means).

Figure 2 illustrates the interaction plot by showing the regression lines linking POS to turnover intentions under the conditions of low TIO (one standard deviation below the mean) and high TIO (one standard deviation above the mean). In a similar manner, Figure 3 illustrates the interaction plot by showing the regression lines of LMX to turnover intentions under the conditions of low TIS (one standard deviation below the mean) and high TIS (one standard deviation above the mean).
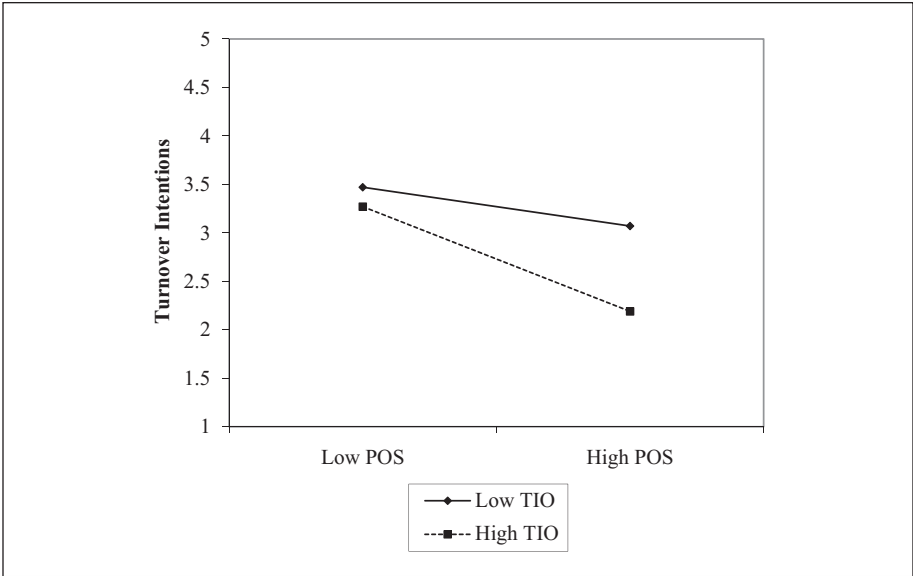
Figure 2. Interactions between POS and turnover intentions for high and low TIO.
Note. POS = perceived organizational support; TIO = trust in organization.
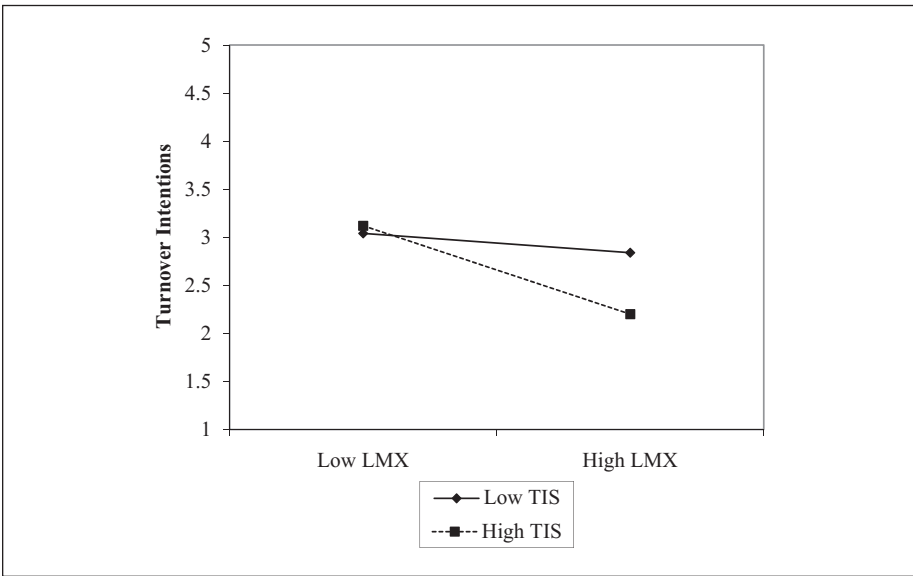
Figure 3. Interactions between LMX and turnover intentions for high and low TIS.
Note. LMX = leader-member exchange; TIS = trust in supervisor.

Table 5. Chi-Square Difference Test for Alternative Models.

Model	Paths added to revised model	χ^2	df	$\Delta\chi^2$	Δdf
Revised		2.82	7	—	—
Alternative 1	From participation in decision making to LMX	2.80	6	0.02	1
Alternative 2	From fair rewards to LMX	2.65	6	0.17	1
Alternative 3	From participation in decision making to turnover intentions and from fair rewards to turnover intentions	2.58	5	0.24	2
Alternative 4	From information sharing to turnover intentions and from POS to LMX	2.70	5	0.12	2
Alternative 5	From LMX to trust in supervisor and from POS to trust in supervisor	2.66	5	0.16	2
Alternative 6	From trust in supervisor to turnover intentions	2.74	5	0.08	2

Note. LMX = leader-member exchange; POS = perceived organizational support.

Alternative Models

Six additional alternative models were also tested against the revised model. Alternative Model 1 consisted of the addition of a path from participation in decision making to LMX. As shown in Table 5, the difference in chi-square between Alternative Model 1 and the revised model was not significant (*ns*), $\Delta\chi^2$ ($\Delta df = 1$) = 0.02, *ns*. This indicates that the additional path from participation in decision making to LMX was not significant; thus, participation in decision making was not a common antecedent for either POS or LMX. For Alternative Model 2, a path was added from fair rewards to LMX. The difference in chi-square between Alternative Model 2 and the revised model was not significant: $\Delta\chi^2$ ($\Delta df = 1$) = 0.17, *ns*, which again does not support the common antecedents thesis for fair rewards.

Alternative Model 3 included the addition of paths from participation in decision making to turnover intentions and from fair rewards to turnover intentions. The difference in chi-square between Alternative Model 3 and the revised model again was not significant: $\Delta\chi^2$ ($\Delta df = 2$) = 0.24, *ns*. Alternative Model 4 included the addition of paths from information sharing to turnover intentions and from POS to LMX. The difference in chi-square between Alternative Model 4 and the hypothesized model was not significant: $\Delta\chi^2$ ($\Delta df = 2$) = 0.12, *ns*. Alternative Model 5 included the addition of paths from LMX to TIS and from POS to TIO. The difference in chi-square between Alternative Model 5 and the hypothesized model was not significant: $\Delta\chi^2$ ($\Delta df = 2$) = 0.16, *ns*. Finally, Alternative Model 6 included the addition of paths from TIO and TIS to turnover intentions. The difference in chi-square between Alternative Model 6 and the hypothesized model was not significant: $\Delta\chi^2$ ($\Delta df = 2$) = 0.08, *ns*. Overall, none of the additional paths included in the alternative models were significant, and the parsimonious fit indices indicated that the revised model was slightly more parsimonious (Parsimonious Normed Fit Index [PNFI] = 0.74) compared with the alternative models (PNFI for all alternative models = 0.71). Therefore, these results provide additional support for the revised model.

Discussion and Conclusion

The current study tested the roles of high-involvement HR practices, POS, LMX, and trust on turnover intentions of IT professionals in public organizations in Turkey. Specifically, the study examined the potential mediating influence of POS and LMX on the relationship between high-involvement HR practices and turnover intentions, as well as the moderating effects of trust on the relationship of POS and LMX with turnover intentions.

Findings show that, when considered together with POS and LMX, only one of the four dimensions of high-involvement HR practices, namely, recognition, was significantly and negatively ($\beta > 0$) related to turnover intentions. We also found that POS and LMX have strong negative associations with turnover intentions. The results demonstrate that, when POS and LMX are in the model as antecedents of turnover intentions, effects of participation in decision making, fair rewards, and information sharing decreased to insignificant levels. Thus, POS and LMX fully mediated the relationship between participation in decision making, fair rewards, information sharing, and turnover intentions as hypothesized.

However, it was found that TIO moderated the relationship between POS and turnover intentions, so that the link between POS and turnover intentions is negative and significant only when the employees had high TIO. That is, POS exerts a stronger negative effect on turnover intentions among employees having high TIO than low TIO. It was also revealed that TIS moderated the relationship between LMX and turnover intentions, so that the association between LMX and turnover intentions is negative and significant only when the employees have high TIS.

Prior research has shown that IT professionals do not generally like to socialize and they like to work alone (Woodruff, 1980). IT professionals form a specific occupational group and they have a stronger need for learning and self-development and a lower need for social interaction (Wynekoop & Walz, 1998). Contrary to the previous studies describing IT professionals as employees having a lower need for social interaction and being more conservative than population norms (Reid, Allen, et al., 2008; Wynekoop & Walz, 1998); this study empirically demonstrated that the social interactions and exchanges (e.g., POS and LMX) exert considerable influence on public IT professionals' work-related attitudes. Hence, to reduce turnover intentions and to increase retention of key IT personnel in public organizations, managers and leaders should focus on showing care and concern for employees regarding their needs and contributions by sharing information, recognizing their efforts, and allowing their participation in decision-making process.

As in previous findings (e.g., Pare & Tremblay, 2007; Rhoades & Eisenberger, 2002), we found that IT employees appreciate organizations that provide opportunities for participation, fair rewards, information sharing, and recognition; they tend to perceive organizations as more supportive, because high-involvement HR practices indicates that the organization trusts them to carry out tasks on their own, and appreciates their contributions. In other words, the more employees feel involved, the stronger they believe in their organization's support. In turn, results indicate a negative relationship between POS and turnover intentions. Hence, when employees feel that they

are capable of influencing their organizations, they are expected to stay with their organization for a longer time.

This study also revealed that sharing information and recognizing employees' achievements and efforts specifically help to increase the perception of a high-quality LMX. Through a high-quality LMX, a leader can reduce the negative feelings of his or her subordinates regarding the organization. LMX is necessary to create effective HR that can meet the demands of the business environment efficiently. While it has been shown that leader behaviors are disseminated to subordinates through the relationship of the dyad, the high-quality LMX seem to have a strong mediator effect. The resulting implications are that higher levels of LMX are necessary to increase subordinates' positive attitudes toward the organization and to reduce the intention of leaving.

Unlike the other three HR practices, the link from recognition to turnover intentions remains significant, despite the strong mediating effects of POS and LMX. This finding suggests that recognition is one of the most important HR practices for public IT employees. Recognition helps them perceive that they are important to the organization and that their effort and work are well appreciated by their supervisors.

Furthermore, the results also indicated that organizational trust moderated the relationship between social exchanges and turnover intentions. This finding supported the previous research that proposed trust as a moderator (e.g., Goris et al., 2003; Parayitam & Dooley, 2007). Trust is a fundamental and crucial issue in organizations; it creates a social environment in which the lessening effect of social exchanges on employees' negative attitudinal and behavioral outcomes is reinforced. Trust is considered an important facilitator for all HR practices and social exchanges to achieve organizational goals. It should be noted that TIO and TIS are different constructs and have differentiated effects on employee attitudes. Hence, both forms of organizational trust should be present in an organization to create a well-functioning environment.

IT professionals from Turkish public organizations were the main target of this study. Previous research has noted that IT professionals' turnover intentions is a widespread issue especially in developing countries (Lacity, Iyer, & Rudramuniyaiah, 2008; Rahman, Naqvi, & Ramay, 2008) and a remarkably high degree of turnover in the IT workforce threatens the effective and successful implementation of public IT projects, such as e-government applications. In public organizations, HR managers struggle to retain their valued IT employees, due to the ample job opportunities in the private sector and a general shortage of talented candidates. According to the findings of the current study, public-sector HR and IT executives must work together to build a more supportive organizational climate to foster retention and recruitment. Thus, reducing IT professionals' turnover intentions is a crucial and strategic HR management activity in the public sector. Those employees who perceive high trust and support from their organization and high-quality exchanges with their supervisors will be most likely to stay in the organization voluntarily. In addition, those employees will have strong positive attitudes about their organization and are more likely to commit to its vision, mission, values, and long-term goals. The findings of the current study also reinforce the notion that if organizations desire to keep their talented IT

personnel, they should formulate HR practices that promote involvement and fair treatment and display organizational support. Consequently, this research demonstrates that POS and LMX exert significant influence on public IT personnel, especially regarding trust in their organizations and supervisors.

In this study, HR practices promoting participation in decision making and information sharing had no direct relationship with turnover intentions of IT employees. These findings contradict with previous studies indicating that worker participation in decision making and information sharing increases organizational commitment and decreases turnover intentions (Cerit, 2010; Somech & Bogler, 2002). It is possible to explain this finding in light of the high power distance and paternalism characterizing Turkish culture (Aycan, 2001; Aycan et al., 2000). In such a culture, the involvement of the employees in decision-making processes is viewed as a weak leadership. In addition, different from the private sector, in the Turkish public administration structure decisions are generally made by the administrators alone and employees may not consider it important to participate in decision making. This may result from the fact that, in Turkish public administration system, employees may internalize this situation because public managers do not have too much initiative regarding administrative decisions, because they have no control over the centralized and bureaucratic structure of the Turkish public administration system (Cerit, 2010).

However, contrary to previous research findings (Aycan, 2006), it is found that recognition has both direct and indirect influences through social exchanges on the turnover intentions of public IT employees. Different from the private sector, monetary rewards is used at the minimum level in Turkish public administration system (Baş & Ardıç, 2002). In addition, Javidan et al. (2006) propose a deprivation hypothesis based on their analysis of the GLOBE data suggesting that individuals seek and value what they do not have. This is particularly important in the Turkish context as the young and educated workforce, such as well-educated IT professionals, have aspirations and preferences more aligned with their Western counterparts (Acar & Özgür, 2004; Aycan & Fikret-Pasa, 2000). Thus, it can be concluded that for Turkish public organizations in which monetary rewards are not commonly used recognition practices have an important influence on IT professionals' attachment to the organization.

In this study, we found that social relationships and interpersonal trust mediated the influence of HR practices for Turkish employees. It is possible to explain this finding in light of the high collectivism and femininity characterizing the Turkish culture. For collectivist and feminine cultures, interpersonal relationships are one of the key mechanisms through which employees become attached to their organizations (Hofstede, 1980; Wasti, 2003). Thus, this study supports the previous findings proposing that Turkish employees who have relatively high collectivist and feminine cultural values focus more on relationship than on rules in guiding their work-related attitudes (Aycan, 2001; Wasti, 2003). This relationship between employees and their supervisors under the influence of interpersonal trust helps the organization create a harmony, a deep understanding of moral values and a voluntary attachment among employees. This study also provides empirical support to the previous research which revealed that the

support of supervisors and interrelationships positively affected the organizational commitment of employees in Turkey (Turan, 1998), and in public sector (Perryer & Jordan, 2005). Based on these results, it can be concluded that Turkish public managers should exert an effort to develop social exchanges and interpersonal trust to improve employees' commitment to school and thus to reduce their intentions to quit.

Furthermore, HR managers have increasingly been included in the strategic decision making in most Turkish companies and it can be said that the roles of HRM departments have begun to be perceived as a part of strategic approach, but it is still not widespread especially in Turkish public organizations (Gürbüz & Mert, 2011). Thus, it is crucial for Turkish public HR managers to understand the roles of intervening mechanisms between HR practices and expected outcomes.

In the HRM literature, the question of mediators involves proposing comprehensive models based on a strong theoretical foundation that may provide a broad analytical framework including intermediary variables. Research in the field of HRM has been increasingly emphasizing on analyzing simultaneous influence of HR practices and mediators on work-related attitudes and behaviors (Paauwe, 2009; Wright, Gardner, Moynihan, & Allen, 2005). Thus, this study by proposing a more comprehensive and integrative model comprising both mediating and moderating variables contributes to the current level of understanding how HR practices improve employees' positive attitudes toward their organizations.

Although the results of this study are context specific, there are some theoretical grounds to assume that public institutions in other cultures and countries may experience similar dynamics and thus the findings of this study may also be of interest to HRM practitioners and scholars from other countries. First, high-involvement HRM practices included in this study (i.e., participation in decision making, information sharing, fair organizational rewards, and recognition practices) have been extensively used in different studies and context (Appelbaum et al., 2000; Pare & Tremblay, 2007), and they are not culture- or profession-specific HRM practices utilized only in Turkey or Turkish public organizations. Second, social exchange framework consisting POS, LMX, and trust do not suggest a unique cultural climate specific to Turkish public organizations. As explained in detail in the relevant sections, Turkey is a country known for blending Eastern and Western values and for having research findings similar to those of studies conducted in Western countries with respect to the importance of social exchanges and organizational trust (Erdogan et al., 2004; Erdogan et al., 2006; Ertürk, 2007). The results of this study also extend the previous research findings (Dirks, 1999; Ertürk, 2010; Masterson et al., 2000; Wayne et al., 2002) and suggest that the HRM practices, social exchange components, and trust which are the components substantially studied in Western cultures work in a similar manner also in Turkish organizations. It seems plausible to conclude that the findings of this study are not culture bound, and other public organizations which have similar cultural characteristics and managerial practices might experience similar dynamics. Hence, this study may more readily be of interest to the managers in the countries where social exchanges and trust are culturally acceptable interventions.

Limitations and Recommendations for Future Research

The findings and the contribution of the current study must be evaluated taking into account some potential limitations of the research design. First, the data were cross-sectional, making it impossible to imply causality. All of the variables were measured at the same time and from the same source, so concern about the effects of common method variance is warranted. To minimize this potential problem, the scales in the actual survey were ordered so that the dependent variable did not precede all the independent ones (Podsakoff & Organ, 1986). In addition, as explained in detail in the relevant section above, the results of Harman's one-factor test and the single-factor CFA suggest that common method variance is not of great concern and thus is unlikely to confound the interpretation of results.

Second, any data collected by self-reporting measures may have been influenced by a social desirability response bias. Although one cannot rule out a self-serving bias as a possible influence, researchers have suggested that social desirability is generally not a source of bias in measuring organizational perceptions (Moorman & Podsakoff, 1992).

Finally, our sample consisted of IT professionals working for public organizations in Turkey. This setting may not be generalized to all IT employees and organizations. Hence, implications and conclusions of this study are limited by the context of the research. Thus, future research could involve the replication of this study in a number of different contexts. The author believes that future research assessing similar data from different contexts will provide informative validation for the results of this study. Additionally investigating other firm-specific effects and managerial implications, such as leadership, organizational culture, and identification on turnover intentions, may help academicians and practitioners to better understand the determinants of IT employees' turnover intentions.

Declaration of Conflicting Interests

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Author Biography

Alper Ertürk is currently a visiting associate professor of management at Gebze Institute of Technology, Turkey, whence he obtained his PhD in organizational behavior. His research interests include leadership, organizational trust, cognitive styles, and perceptions of workplace fairness.