South African Journal of Business Management
ISSN: (Online) 2078-5976, (Print) 2078-5585

The effect of LMX on performance: Cyberloafing and commitment as serial mediators

Authors:
İlksun Didem Ülbeği[1]
Esengül İplik[2]

Affiliations:
[1]Department of Business, Faculty of Economics and Administrative Sciences, Çukurova University, Adana, Turkey

[2]Department of Business, Faculty of Economics, Administrative and Social Sciences, Adana Alparslan Türkeş Science and Technology University, Adana, Turkey

Corresponding author:
Esengül İplik,
eiplik@atu.edu.tr

Dates:
Received: 21 Feb. 2025
Accepted: 07 Aug. 2025
Published: 30 Sept. 2025

How to cite this article:
Ülbeği, İ.D., & İplik, E. (2025). The effect of LMX on performance: Cyberloafing and commitment as serial mediators. *South African Journal of Business Management, 56*(1), a5243. https://doi.org/10.4102/sajbm.v56i1.5243

Copyright:
© 2025. The Authors. Licensee: AOSIS. This work is licensed under the Creative Commons Attribution License.

Read online:
Scan this QR code with your smart phone or mobile device to read online.

Purpose: This study aims to explore the serial mediation effects of cyberloafing (CY) and organisational commitment (OC) on the relationship between leader–member exchange (LMX) and employee performance.

Design/methodology/approach: In the study, data were collected through a survey method from two different samples selected using the convenience sampling method. In this context, analyses were conducted using data collected from 358 bank professionals and 437 private sector employees in a city in southern Türkiye. The first study examined construct validity by using exploratory factor analysis and confirmatory factor analysis. In the second study, structural equation modelling was utilised to test the hypotheses.

Findings/results: The analysis results of the current study revealed that the impact of LMX on CY, OC and employee performance was significant. It was also found that CY and OC played a mediating role in the predictive relationship between LMX and employee performance. Furthermore, these two variables together had a serial mediation effect on employee performance.

Practical implications: The findings highlight the importance of managers avoiding behaviours that could lead to perceptions of discrimination among employees in order to achieve the desired performance. Additionally, it is crucial for managers to foster relationships based on trust and fairness with all employees.

Originality/value: This study contributes to the existing literature by investigating the serial mediation effect of CY and OC in the relationship between LMX and employee performance. These findings are valuable for organisations seeking to improve performance, reduce cyberloafing and increase OC by fostering high-quality LMX relationships.

Keywords: leader–member exchange; cyberloafing; organisational commitment; employee performance; Türkiye; private sector; serial mediation.

Introduction

Most theories on leadership have addressed this concept from the perspective of the leader (the trait approach and leadership style approach) or the follower and the context (situational leadership and path-goal theory). Such theories consider leadership as the act of leaders towards all their followers and argue that leaders use an average leadership style, treating their followers by considering them as a group with a collective understanding. However, the leader–member exchange (LMX) theory, which provides a different perspective on the concept of leadership, has challenged this assumption and directed the attention of researchers to the differences that may exist between the leader and each of the leader's followers (Northouse, 2021).

According to LMX theory, leadership is a social influence process whereby leaders and subordinates share power and actively negotiate work roles (Major & Morganson, 2011). The basic principle in the LMX theory is that leaders develop many different exchange relationships with their subordinates and that the quality of such relationships changes the impact on important leader and member outcomes. Thus, leadership emerges when leaders and followers are able to develop quality relationships that result in mutual and increasing influence (Avolio et al., 2009).

Furthermore, high-quality interaction between leaders and members is characterised by trust and mutual respect, and this high-quality interaction leads to considerable impact on employees' work-related well-being and performance. Leader–member exchange has many positive outcomes for both individuals and organisations. The most frequently discussed

outcomes of the LMX quality in the literature include employee performance and work attitudes. The results of meta-analyses (Dulebohn et al., 2012; Gerstner & Day, 1997) revealed that subordinates with high-quality relationships have higher organisational commitment (OC), higher job satisfaction and lower turnover intentions than subordinates with low LMX relationships (Erdogan & Bauer, 2015). Uhl-Bien and Maslyn (2003) reported that the exchange between the leader and group members could be both positive and negative. According to the said study, when group members perceive that they are misjudged by the leader and that some group members are favoured over others, a negative perception is created among group members, who then may exhibit a negative attitude towards the organisation (Othman et al., 2010). From this standpoint, LMX constitutes the main theme of this study in that it exerts a significant impact on employee attitude towards the organisation. This study, therefore, aims to determine the relationship between LMX and employee attitudes and behaviours such as cyberloafing (CY), organisational commitment (OC) and performance, as well as the serial mediation effects of CY and OC on the influence of LMX on employee performance within the context of Turkey.

Leadership research, including studies on LMX, cannot be separated from cultural factors. Cultural dimensions directly influence both leadership perceptions and leader–subordinate interactions. The majority of existing LMX research has been conducted within Western contexts characterised by individualism and low power distance. However, the study by Anand et al. (2011) revealed that LMX relationships may function differently in Asian and similar collectivist, high power distance cultures (Rockstuhl et al., 2012). Indeed, in collectivist cultures, employees tend to exert greater effort to build positive relationships with their leaders, which contributes to the development of high-quality LMX relationships (Maslyn & Uhl-Bien, 2001). In contrast, individuals in individualistic cultures tend to view themselves as independent and are more inclined to express their opinions openly and communicate directly. As such, unless they perceive it as strategically beneficial for their career advancement or feel a personal affinity towards their leader, they are unlikely to invest effort in developing high-quality LMX relationships (Ariani & Feriyanto, 2024; Terpstra-Tong et al., 2020). Consequently, in collectivist and high power distance countries such as Indonesia, Vietnam, Türkiye and Mexico, employees tend to develop stronger emotional bonds with their leaders, and it is culturally expected that they establish and maintain close relationships with them (Ariani & Feriyanto, 2024).

The impact of LMX on organisational outcomes may vary significantly depending on the cultural context. Existing studies have demonstrated that the relationship between LMX and work-related outcomes tends to be stronger in individualistic cultures compared to collectivist ones (Anand et al., 2011; Dulebohn et al., 2012; González-Navarro et al., 2019; Rockstuhl et al., 2012). For example, while LMX is significantly associated with organisational citizenship behaviour (OCB) in the United States (US) (Uhl-Bien & Maslyn, 2003), this relationship is found to be negligible in China (Loi & Ngo, 2009). Similarly, LMX is strongly related to job satisfaction (Pillai et al., 1999) and reduced turnover intentions (Francis, 2010) in the US, whereas in China, its association with job satisfaction is weaker (Yi, 2002), and in India, no significant relationship with turnover intention has been identified (Mehta, 2009; Rockstuhl et al., 2012).

Consistent with these findings, Ariani and Feriyanto (2024) reported that in Indonesia – a country characterised by high power distance and a collectivist culture – LMX was not significantly associated with either job satisfaction or OC. In this regard, Türkiye's cultural context, which combines collectivist values with relatively high power distance, presents a valuable setting for the investigation of LMX relationships. Examining LMX within the Turkish context may offer important theoretical and practical insights into the role of cultural factors in shaping the dynamics and outcomes of leader–member exchange LMX.

Literature review

Leader–member exchange

In contrast to behavioural leadership theories that focus on what leaders do, such as transformational, authentic, servant or empowering leadership theories, the LMX theory is mainly based on the particular assumption that leaders influence the employees (i.e. members) in their groups through the quality of the relationships they develop with them (Erdogan & Bauer, 2015).

The LMX theory suggests that it is not necessary to use the same leadership style with all subordinates, and that a supervisor may actually develop a different relationship with each subordinate (Dansereau et al., 1975; Graen & Cashman, 1975; Liden & Graen, 1980; Liden & Maslyn, 1998; Scandura & Graen, 1984). In this sense, LMX has its roots in the Vertical Dyad Linkage (VDL) leadership model (Dansereau et al., 1975; Graen & Cashman, 1975). This model explains how the manager uses positional power (organisational resources) to establish different exchange-based relationships with different subordinates, emphasising the importance of the relationships between the manager and each subordinate. Demonstrating each manager-subordinate pair as a vertical dyad, this model differs significantly from earlier approaches that assumed that a manager treats each subordinate in the same way (Özdemir, 2000; Phillips & Bedeian, 1994; Scandura & Schriesheim, 1994).

According to the LMX theory, almost all superiors tend to build relationships with their subordinates at different levels, ranging from high-quality to low-quality (Deluga & Perry, 1994). High-quality exchanges are characterised

by increased effort and personal loyalty towards the leader, in return for which leaders provide these followers with more social support, organisational resources and rewards. Moreover, leaders may view followers with high-quality exchange as 'in-group' or 'advisers' and characterise them as a sub-group to whom they pay special attention. Low-quality exchange, on the other hand, includes followers who produce efforts that do not exceed expectations (Graen & Uhl-Bien, 1995; Schriesheim et al., 2001). Leaders, however, attach less importance to this sub-group, which they regard as 'out-group', than they do to an 'in-group' (Dionne et al., 2010). For that reason, subordinates who are members of the 'out-group' are often given less responsibility and less interesting work tasks, their performance results are evaluated less favourably, and their relations with their superiors are based only on formal exchanges (Liden & Graen, 1980).

Cyberloafing

Having been attracting more and more attention of researchers in recent years because of its significant impact on the effectiveness and efficiency of organisations, CY refers to a wide range of behaviours from personal Internet use in the workplace to checking personal e-mails and browsing daily newspapers or going on social networking sites and from making virtual shopping to entering illegal sites such as gambling, betting as well as downloading music, movies, software programs, etc. that require copyright payment. Cyberloafing is referred to as a type of manufacturing deviation in the workplace where employees intentionally waste time and resources on non-work-related tasks in such a way that it negatively affects the productivity and performance of both employees and organisations (Koay, 2018; Lim, 2002; Usman et al., 2019).

In today's modern work environment, the increasing trend of CY among employees has become a notable organisational issue because of the excessive amount of time wasted on non-work-related online activities. Some scholars (Beugré & Kim, 2006; Oravec, 2002), on the other hand, argue that allowing employees to engage in CY in the form of short breaks during the continuous working hours could potentially reduce work stress and anxiety and even encourage creativity. However, research also shows that CY can expose companies to significant financial and security risks, as a consequence of their employees' spending a significant amount of their time at work, which could account for around 60% – 80%, on non-work-related online activities (Batabyal & Bhal, 2020). Cyberloafing can, therefore, cost companies billions of dollars a year in addition to exposing company systems to get exposed to malware, legal liability risks and network bandwidth degradation (Lim & Teo, 2022).

Cyberloafing has been categorised in different ways by different researchers. Lim and Teo (2005), for example, defined two types of CY activities: sending non-work-related e-mails and browsing non-work-related websites. Blau et al. (2006) made a distinction between passive and interactive CY, arguing that it encompasses not only manufacturing deviance but also property deviance. Moreover, interactive CY, such as downloading information, playing online games or using a chat room, is considered as a form of property deviance and a more serious type of CY compared to just surfing the Internet because it requires more effort and energy (Lim & Teo, 2022). Finally, some researchers (Blanchard & Henle, 2008) classified cyberloafing as minor cyberloafing, which includes deeds such as sending and receiving personal e-mails at work, browsing news pages, as opposed to serious CY, including online gambling, surfing adult websites and downloading music illegally.

Organisational commitment

Organisational commitment – one of the main variables that draws great attention in the field of organisational behaviour research – has been discussed and defined from different perspectives in the literature. Buchanan (1974), for instance, defined OC as a biased and emotional commitment to the goals and values of the organisation, stating that the individual is committed to the organisation for the good of the organisation rather than for personal gain. According to Buchanan (1974), commitment consists of three components: identification, which is defined as adopting the goals and values of the organisation as one's own; involvement, defined as adopting one's role at work and giving oneself to it; and loyalty, defined as a feeling of affection and commitment to the organisation (Arslan & Demirci, 2015; Buchanan, 1974).

Having made the most accepted definition of OC in the literature, Mowday et al. (1979) also defined OC as the relative strength of an individual's identification with and belonging (involvement) to an organisation. By defining OC as a psychological state that reflects the relationship between the employee and the organisation, leading to the decision to continue membership of the organisation (Çöl, 2004), Meyer and Allen (1991) stated that despite the presence of numerous and various definitions of commitment, they actually reflected at least three general themes. These are emotional attachment to the organisation, perceived costs associated with leaving the organisation and obligation to stay in the organisation. These three forms of commitment are classified by Meyer and Allen as affective, continuance and normative commitment. Affective commitment is denoted as the emotional attachment and identification of the employee with the organisation. In precise terms, employees with a strong affective commitment continue to work in the organisation just because they want to. Besides this, continuance commitment refers to the belief that the costs of leaving the organisation will be high. Employees whose primary bond with the organisation is based on continuance commitment continue to stay in the organisation because they are required to do so. Finally, normative commitment

is based on the feeling that it is obligatory to remain in the organisation (Meyer & Allen, 1991). It is a type of commitment based on the individual's belief that he or she has responsibilities and duties towards the organisation and feels obliged to stay in the organisation (Çöl & Gül, 2005).

Employee performance

Performance, which is one of the basic components of an organisation's success, is referred to as the total value provided by an individual for the organisation through different behaviours performed in a standard time period (Motowidlo et al., 1997). One important idea in this definition is that performance is a characteristic of behaviour. It is, in particular, the combined form of several different behaviours occurring over a period of time. The second important idea is that the behavioural characteristic related to performance has an expected value for the organisation. By this definition, the performance construct denotes a variable that distinguishes between clusters of behaviour performed by different individuals and some other clusters of behaviour performed by the same individual at different times. Such a distinction is based on the extent to which clusters of behaviour (in total) contribute to or detract from organisational effectiveness (Motowidlo & Kell, 2012).

The existing literature on performance suggests that employee performance, which is defined as an indicator of whether an employee does their job well and whether certain actions that contribute to achieving the goals of the organisation are performed effectively (Iqbal et al., 2015), also has two forms: in-role and extra-role (Brief & Motowidlo, 1986; Morrison, 1994; Williams & Anderson, 1991). While in-role performance refers to the act of fulfilling the requirements of an employee's job description (Williams & Anderson, 1991), extra-role performance refers to actions that are outside the formal role requirements and are at the discretion of the employee (Biswas & Varma, 2012; George & Brief, 1992).

Research model and hypotheses development

The influence of leader–member exchange on cyberloafing, organisational commitment and employee performance

As the dominant approach to studying leadership relationships, LMX theory emphasises viewing relationships – rather than authority, superiority or dominance – as the key to new forms of leadership (Uhl-Bien, 2006). It argues that the quality of relationships between leaders and followers is critical in shaping employees' work experiences (Brower et al., 2000). Specifically, LMX theory suggests that followers' work-related attitudes and behaviours depend on how their leaders treat them. As one of the most enduring and widely used conceptual frameworks by organisational behaviour researchers to explain employee behaviour, social exchange theory views social life as a series of sequential transactions between two or more parties (Mitchell et al., 2012). Resources are exchanged through a process of reciprocity in which one party tends to repay the good (or sometimes bad) deeds of the other party (Gouldner, 1960). From the standpoint of social exchange theory, LMX focuses on the idea that supervisors develop interpersonal relationships with their subordinates, and those subordinates who are treated positively will develop a sense of obligation towards their supervisors (Ahmadi et al., 2014).

Because the manager is regarded as a representative of the organisation, the importance of the interaction between the employee and the leader (Karriker & Williams, 2009) is assessed bidirectionally. From this standpoint, employees who develop a high-quality relationship with their managers (high LMX) are highly likely to exhibit a positive attitude and behaviour not only towards their managers but also towards the organisation. Labour relations based on social exchange rather than economic ones result in the emergence of positive attitudes such as loyalty, commitment, support and trust among individuals (Cropanzano & Mitchell, 2005; Uhl-Bien & Maslyn, 2003). High LMX relationships lead to more open and honest communication and greater access to resources, resulting in increased emotional bonding between leaders and their followers (Gerstner & Day, 1997; Liden & Maslyn, 1998; Maslyn & Uhl-Bien, 2001; Uhl-Bien & Maslyn, 2003; Uhl-Bien et al., 2000).

As opposed to this, in low-quality relationships, employees end up having more limited access to managers, resources and information, potentially leading to job dissatisfaction, lower OC and accordingly higher employee turnover (Maslyn & Uhl-Bien, 2001). Various studies on LMX, which has recently become one of the most frequently used theories to examine the impact of leaders on employee behaviour (Cogliser et al., 2009; Dulebohn et al., 2012; Lee, 2005; Rehman et al., 2021; Thrasher et al., 2020; Willie, 2025), reveal that higher LMX leads to many positive organisational outcomes such as lower employee turnover, increased OC, higher performance and satisfaction, stronger perceptions of justice and more organisational citizenship behaviour (OCB). Indeed, the meta-analysis conducted by Martin et al. (2016) revealed a significant and positive relationship between LMX and task performance. Similarly, the meta-analysis by Dulebohn et al. (2012), which aimed to examine the antecedents and outcomes of LMX, also found that LMX is positively associated with both employee performance and OC. The findings of the empirical study conducted by Ariani and Feriyanto (2023) among small- and medium-sized enterprises in Indonesia, along with the results of the study by Göksel and Aydıntan (2012) conducted with hospital employees in Turkey, revealed that LMX enhances employees' OC. These two studies are significant as they demonstrate that the relationship between LMX and OC remains valid across different cultural contexts.

Uhl-Bien and Maslyn (2003) argue that this exchange relationship between leaders and subordinates could also

turn into a negative norm of reciprocity. In other words, when leaders are perceived to exhibit negative behaviour towards their subordinates, then such subordinates respond by engaging in negative behaviour. Lower LMX, therefore, leads to increased perceptions in employees regarding inequality, and likewise, increased likelihood of destructive and unethical kinds of behaviour, such as resistance to change, withdrawal, absenteeism and CY within the organisation. With the increased use of technology in business life, CY, which is the reflection of such destructive behaviour in the virtual environment, seems to emerge as a reaction of employees to low-quality LMX (Martin et al., 2016):

H_1: LMX has a negative effect on CY.

H_2: LMX has a positive effect on OC.

H_3: LMX has a positive effect on employee performance.

The influence of cyberloafing on organisational commitment and employee performance

Regardless of the type (e.g. surfing the Internet and checking e-mails), CY is considered an unproductive use of time because it turns out to prevent employees from performing and completing their main work tasks. Cyberloafing is believed to be more disruptive to an organisation's productivity and performance than other forms of shirking in the workplace, such as personal phone calls and long lunch breaks. This is largely because employees can easily pretend to be working hard while actually engaging in CY. It is also considered as a waste of work time because the time that is supposed to be spent on work is wasted on the Internet, which results in a loss of productivity. Assuming that this perspective is correct, a negative relationship between CY and performance is to be expected (Lim, 2002; Usman et al., 2019). Indeed, Juwita et al. (2024) demonstrated in their study that CY has a negative impact on employee performance. Similarly, Eze et al. (2024), in their research conducted with university staff in Cape Town, showed a negative relationship between CY and employee performance. In addition to loss of productivity, damage to the credibility and reputation of the organisation, compromising the privacy of individuals and organisations, the emergence of both personal and organisational legal responsibilities, late completion of tasks, loss of jobs as a result of dismissal, wage cuts (Candan & Ince, 2016), decreased commitment of employees to the organisation and increased burnout (Muafi, 2023) are a number of other undesirable consequences given rise to by cyberloafing for the organisation:

H_4: Cyberloafing has a negative effect on OC.

H_5: Cyberloafing has a negative effect on employee performance (P).

Organisational commitment and employee performance

A strong belief in organisational values and goals, a willingness to put a lot of effort on behalf of the organisation and a strong desire to remain a member of the organisation can motivate employees to work harder (Suharto & Hendri, 2019). It is also believed that employees with strong OC tend to work harder to contribute to the performance of the organisation (Tolentino, 2013). As a consequence, the high level of commitment of employees to the organisation is highly likely to ensure that they will make extra effort on behalf of the organisation (Mowday et al., 1982):

H_6: Organisational commitment has a positive effect on employee performance.

The mediating and serial mediating roles of cyberloafing and organisational commitment

Although no study in the reviewed literature has explicitly examined the mediating and especially the serial mediating roles of CY and OC in the relationship between LMX and P, existing research (Breevaart et al., 2015; Wang, 2016) shows that the effect of LMX on performance is shaped not only directly but also indirectly through individual attitudes and behaviours. Accordingly, the direct relationships observed in the literature between LMX, CY, OC and P suggest that CY and OC may potentially act as mediators and even as serial mediators in the relationship between LMX and performance.

This perspective is theoretically grounded in the Theory of Planned Behaviour (TPB) (Ajzen, 1991), which is based on *Norman Anderson's Information Integration Theory* (1971) and Fishbein and Ajzen's *Theory of Reasoned Action* (1980). Recognised as a significant conceptual framework for explaining and predicting human behaviour, TPB proposes that individuals' social behaviours emerge in a planned manner, under the influence of certain psychological processes and environmental factors (La Barbera & Ajzen, 2021; Mercan, 2015). According to the theory, three core psychological antecedents – attitude towards the behaviour (i.e. the individual's evaluation of the behaviour as positive or negative), subjective norms (i.e. the perceived social pressure to perform or not perform the behaviour) and perceived behavioural control (i.e. the individual's perception of how easy or difficult it is to perform the behaviour) – shape one's behavioural intention and, in turn, actual behaviour (Ajzen, 1991). Furthermore, the effects of environmental factors such as leadership on behaviour are proposed to operate indirectly through these three core components (Conner & Armitage, 1998). Indeed, empirical studies have shown that leadership plays a significant role in influencing these psychological mechanisms by shaping employees' attitudes, perceptions and expectations regarding social norms, thereby impacting their behavioural intentions (Xu et al., 2021). In this context, effective leadership can reduce negative behaviours such as CY, enhance OC and consequently improve P.

In line with the Theory of Planned Behaviour (TPB), this study conceptualises CY as a proximal behavioural manifestation of negative attitudes and social norms shaped by poor leadership interactions (i.e. low-quality LMX), and OC as a motivational construct reflecting internalised organisational norms and perceived behavioural control. In this context, the proposed model represents a cognitively and behaviourally coherent pathway that has not been empirically tested in the literature to date:

H_7: Cyberloafing has a mediating role in the relationship between LMX and employee performance.

H_8: Organisational commitment has a mediating role in the relationship between LMX and employee performance.

H_9: Cyberloafing and OCt have a serial mediating role on the relationship between LMX and employee performance.

Methodology

Sample

In this study, conducted using a survey method, data were collected through convenience sampling from two distinct samples: employees in the banking sector and the private sector. These sectors were deliberately selected because of their inclusion of elements closely related to LMX and CY, such as intensive interpersonal interactions, hierarchical organisational structures and the frequent use of digital communication tools. Additionally, both sectors have been significantly affected by recent transformations in the business world and have been subjected to increasing performance pressures, making them particularly suitable contexts for examining leader–member dynamics and employee outcomes. However, the use of convenience sampling and the sector-specific nature of the sample may limit the generalisability of the findings to other sectors or to public-sector settings. To assess consistency between the samples and to minimise potential biases arising from sample-specific characteristics, separate analyses were conducted.

In the first sample, there were 358 people working in the banks in a city in southern Türkiye. A total of 450 questionnaires were distributed, of which 362 were collected. As four questionnaires were not properly completed, they had to be excluded from the study, which resulted in a total of 358 questionnaires to be included in the study. The response rate was 80%. According to the statistical data, 38.8% (139) of the participants were women, while 61.2% (219) were men. In the first sample, the mean age was 33.8 years, and the mean job tenure was 6.11 years.

In the second sample, the participants consisted of 437 private sector employees working in a city in southern Türkiye. A total of 600 questionnaires were distributed, of which 447 were returned and 10 were removed from the study. A total of 437 questionnaires were included in the study. Accordingly, the response rate was 75%. According to the data collected, 47% (207) of the respondents were women and 53% (230) were men. In the second sample, the mean age was 30.4 years, and the mean job tenure was 7.24 years (Table 1).

Instruments

In order to collect data for the study, various measurement instruments and demographic questions were used to construct the questionnaire items. Accordingly, the scale composed of seven items developed by Scandura and Graen (1984) was used to measure LMX. In addition, a scale comprised seven items developed by Brock et al. (2013) was used to measure CY. Also, the six-item OC scale developed by Jaworski and Kohli (1993) was used to assess OC. Finally, data on the participants' P were collected using the six-item P scale developed by Kirkman and Rosen (1999). A five-point Likert scale was adopted to assess all items in the questionnaire. In the study, demographic questions were used to collect additional demographic information from participants. Accordingly, the respondents were directed with questions regarding their age, gender, educational background, tenure and tenure in their current workplace.

Process

In the study, initially, exploratory factor analysis was conducted to reveal the construct validity of the measurement model. Confirmatory factor analysis was conducted to verify this construct and to test the validity of the model, and the divergent, convergent and nomological validities were established. Cronbach's alpha and McDonald's omega coefficients were used to examine the internal consistency of the instruments. Pearson correlation analysis was conducted to identify correlations between variables. Hypothesis tests and direct, indirect and total effects between the variables were analysed using structural equation modelling with the bootstrap method (Figure 1).

Ethical considerations

Ethical clearance to conduct this study was obtained from the Adana Alparslan Türkeş Science and Technology University Scientific Research and Publication Ethics Committee (Protocol No: 2022/14, Dated: 16 March 2022).

Results

In the first study, an exploratory factor analysis was conducted using principal component analysis and the varimax rotation method to reveal the factor structure of the research model. The KMO value, which indicates the adequacy of the sample size for conducting factor analysis, and the results of Bartlett's test of sphericity showed that factor analysis was appropriate (KMO = 0.95; Bartlett's test of

TABLE 1: Demographic information of the samples.

Demographic characteristics	First sample		Second sample	
	n	%	*n*	%
Gender				
Female	139	38.8	207	47.0
Male	219	61.2	230	53.0
Education status				
Primary school	17	4.7	16	3.7
Middle school	118	33.0	135	30.9
High school	81	22.6	97	22.2
University	122	34.1	146	33.4
Master's degree/PhD	20	5.6	43	9.8

Note: Mean age – First sample = 33.8; Second sample = 30.4. Job tenure† – First sample = 6.11; Second sample = 7.24. Job tenure at current organisation‡ – First sample = 4.01; Second sample = 6.54.

PhD, Doctor of Philosophy.

†, Refers to the total duration the employee has worked in their profession or field.

‡, Indicates the length of time the employee has been employed at their current company.

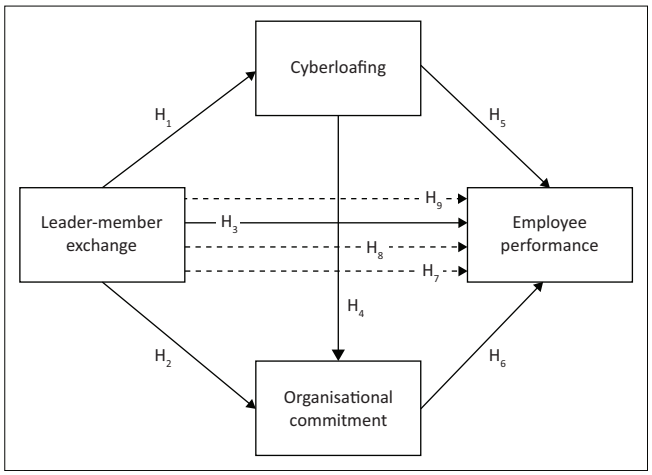

FIGURE 1: Research model.

sphericity, χ^2 = 6557.06; degrees of freedom [*df*] = 325; $p < 0.001$). According to the results of the exploratory factor analysis presented in Table 2, four factors were identified in the model, explaining 70.75% of the total variance.

In the present study, a confirmatory factor analysis was conducted using the maximum likelihood estimation method to determine the validity of the research model. According to the results of the confirmatory factor analysis, the factor loadings ranged between 0.76 and 0.84, with statistically significant values. According to the findings, the measurement model showed excellent fit, as indicated by the model fit values presented in Table 3 (χ^2 = 296.92; *df* = 293; χ^2/df = 1.01; $p < 0.001$; Comparative Fit Index [CFI] = 0.99; Tucker–Lewis Index [TLI] = 0.99; Incremental Fit Index [IFI] = 0.99; Root Mean Square Error of Approximation [RMSEA] = 0.006; Standardised Root Mean Square Residual [SRMR] = 0.024).

In the first study, convergent, discriminant and nomological validities were assessed to test construct validity. For establishing convergent validity, factor loadings and AVE values should be greater than 0.50, and the CR values should be greater than 0.70 (Hair et al., 2018). The factor loadings were greater than 0.50 and ranged between 0.76 and 0.84, while the AVE values were greater than 0.50 and the CR values were greater than 0.70, as seen in Table 4. These findings indicate that the discriminant validity was achieved in the study.

To achieve discriminant validity, the MSV values must be smaller than the AVE values, and the correlations between the variables must be smaller than the square root of the AVE values (Hair et al., 2018). As seen in Table 4, all the MSV values were obtained to be smaller than the AVE values, while the correlation coefficients between the variables were also identified to be smaller than the square root of the AVE values. These findings indicate that discriminant validity has been established within the scope of the study.

Lastly, to ensure nomological validity, correlation values between the variables in the study had to be statistically and theoretically significant (Hair et al., 2018). Accordingly, as seen in Table 4, the correlations between variables are theoretically and statistically significant, which indicates that nomological validity was also achieved.

Regarding reliability, Cronbach's alpha and McDonald's Omega internal consistency coefficients were used to test the reliability of the scales. As seen in Table 4, Cronbach's alpha and McDonald's omega coefficients of all scales used

TABLE 2: Factor loadings of the scales used.

Items	LMX	Cyberloafing	Organisational commitment	Employee performance
LMX				
L1	0.82	-	-	-
L2	0.81	-	-	-
L3	0.81	-	-	-
L4	0.80	-	-	-
L5	0.81	-	-	-
L6	0.83	-	-	-
L7	0.80	-	-	-
Cyberloafing				
CY1	-	0.78	-	-
CY2	-	0.79	-	-
CY3	-	0.74	-	-
CY4	-	0.80	-	-
CY5	-	0.82	-	-
CY6	-	0.78	-	-
CY7	-	0.76	-	-
Organisational commitment				
OC1	-	-	0.78	-
OC2	-	-	0.81	-
OC3	-	-	0.81	-
OC4	-	-	0.80	-
OC5	-	-	0.82	-
OC6	-	-	0.77	-
Employee performance				
P1	-	-	-	0.82
P2	-	-	-	0.81
P3	-	-	-	0.79
P4	-	-	-	0.80
P5	-	-	-	0.82
P6	-	-	-	0.80
% of variance explained	19.41	18.21	16.32	16.80

Note: Exploratory factor analysis was conducted using principal component analysis with varimax rotation. Factor loadings above 0.40 were considered significant.

Kaiser-Meyer-Olkin (KMO) = 0.95; Bartlett's test of sphericity, χ^2 = 6557.06; *df* = 325; $p < 0.000$, % of variance explained = 70.75.

LMX, leader–member exchange.

TABLE 3: Confirmatory factor analysis model fit results (N = 358).

Fit index	Model results	Reference values†
χ^2	296.92	$0 \le \chi^2 \le 2df$
df	293	-
χ^2/df	1.01	$0 \le \chi^2/df \le 2$
p	0.00	$p > 0.00$
CFI	0.99	0.90 < CFI
TLI	0.99	0.90 < TLI
IFI	0.99	0.90 < IFI
RMSEA	0.006	0.00 < RMSEA < 0.05
SRMR	0.024	0.00 < SRMR < 0.05

χ^2, Chi-square; *df*, degrees of freedom; CFI, comparative fit index; TLI, Tucker–Lewis Index; IFI, incremental fit index; RMSEA, root mean square error of approximation; SRMR, standardised root Mean square residual.

†, Reference values adapted from Bayram (2010), Hair et al. (2014), Meydan and Şeşen (2011).

in the study were above 0.90, which indicates that the instruments in the study were reliable.

To test the research model, structural equation modelling was conducted using maximum likelihood and bootstrap methods. As seen in Table 5, the model fit values showed that the research model had an excellent fit. As shown in Table 6, leader–member exchange has a positive effect on OC and P, while it has a negative effect on CY. Additionally, cyberloafing also has a negative effect on OC and P, whereas OC has a positive effect on P. According to these results, hypotheses H_1, H_2, H_3, H_4, H_5 and H_6 are supported.

Tables 6 and 7 present the direct, indirect and total effects in the research model. According to these results, CY mediated the relationship between leader–member exchange and P (estimate = 0.179 (0.043), 95% CI = [0.113–0.256], Bca 95% CI = [0.104–0.271]). Additionally, OC mediated the relationship between leader–member exchange and P (estimate = 0.114 [0.032], 95% CI = [0.070–0.178], Bca 95% CI = [0.057–0.186]). Regarding the relationship between leader–member exchange and P, the results showed that CY and OC have a serial mediation role (estimate = 0.047 [0.016], 95% CI = [0.026–0.078], Bca 95% CI = [0.022–0.084]). These results showed that hypotheses H_7, H_8 and H_9 are also supported.

Discussion

Leader–member exchange, which defines the social exchange relationship between managers and employees, is a topic of great interest to researchers because of its impact on critical attitudinal and behavioural responses of employees. As a matter of fact, the quality of the relationship between leaders and employees shapes the attitudes and behaviours of employees towards their managers and the organisation. This study, therefore, examines the direct and indirect relationships between leader–member interaction and CY, as well as OC and employee performance, and it is based on nine hypotheses, which are discussed in order.

The analysis results of the current study, conducted to examine the effect of LMX on employees' CY behaviour, OC and performance, revealed that the impact of LMX on such variables was significant. Moreover, LMX had a negative predictive effect on CY and a positive predictive effect on OC and employee performance. In other words, as the level of leader–member interaction increased, the likelihood of employees engaging in CY behaviour decreased, while their commitment to the organisation and their performance increased. Generally speaking, when employees perceive that their relationship with their leader is superficial and of low quality (low LMX), but that the leader has a closer and higher quality relationship with other colleagues, they may spend more energy on non-work-related activities during working hours in reaction to their managers and the organisation. On the other hand, employees who are able to establish a high-quality relationship (high LMX) with their leaders based on trust, communication and information sharing are likely to increase their commitment to both the leader and the organisation in such a way as to show higher performance by reflecting their energy in their work.

Our results are in conformity with the previous research results to reveal the relationship between LMX and CY (Arar et al., 2022; Çiriş Yıldız et al., 2021; Khan et al., 2021; Sutoni, 2023; Usman et al., 2021), OC (Casimir et al., 2014; Çekmecelioğlu & Ülker, 2014; Göksel & Aydıntan, 2012; Jaiswal & Dhar, 2016; Lee, 2005) and employee performance (Akman, 2021; Cerit, 2012; Chaurasia & Shukla, 2013; Martin et al., 2016; Thrasher et al., 2020; Turgut et al., 2015; Willie,

TABLE 4: Correlations, Cronbach's alphas, McDonald's omegas, composite reliabilities, average variance extracted and maximum shared variance of the scales used.

Variables	α	CR-ω	AVE	MSV	1	2	3	4
1. Leader–member exchange	0.94	0.94	0.68	0.20	**0.82**	-	-	-
2. Cyberloafing	0.92	0.92	0.62	0.20	-0.43**	**0.79**	-	-
3. Organisational commitment	0.92	0.92	0.65	0.20	0.42**	-0.41**	**0.80**	-
4. Employee performance	0.93	0.93	0.68	0.20	0.44**	-0.45**	0.44**	**0.82**

Note: Bolded diagonal values are the square root of AVEs.

α, Cronbach's alpha coefficient; CR- ω, composite reliability-McDonald's omega coefficient; AVE, average variance extracted; MSV, maximum shared variance.

**, $p < 0.01$.

TABLE 5: Model fit results ($N = 437$).

Fit index	Model results	Reference values†
χ^2	353.64	$0 \le \chi^2 \le 2df$
df	293.00	-
χ^2/df	1.18	$0 \le \chi^2/df \le 2$
p	0.00	$p > 0.00$
CFI	0.99	0.90 < CFI
TLI	0.99	0.90 < TLI
IFI	0.99	0.90 < IFI
RMSEA	0.022	0.00 < RMSEA < 0.05
SRMR	0.030	0.00 < SRMR < 0.05

χ^2, Chi-square; df, degrees of freedom; CFI, comparative fit index; TLI, Tucker–Lewis index; IFI, incremental fit index; RMSEA, root mean square error of approximation; SRMR, standardised root mean square residual.

†, Reference values adapted from Bayram (2010), Hair et al. (2014), Meydan and Şeşen (2011).

TABLE 6: Path coefficients in the model.

Path coefficients	Employee performance	Cyberloafing	Organisational commitment
Leader–member exchange	0.296** (0.065)	-0.428** (0.063)	0.517** (0.061)
Cyberloafing	-0.150** (0.048)	-	-0.212** (0.047)
Organisational commitment	0.371** (0.060)	-	-

Note: Standard errors are placed in parentheses.

*, $p < 0.05$; **, $p < 0.01$.

TABLE 7: Indirect effects in the model.

Indirect effects	Estimate	Symmetric 95% CI	Bootstrap 95% CI
Total	0.290** (0.055)	0.196–0.411	0.193–0.410
LMX→CY→P	0.064** (0.016)	0.039–0.105	0.035–0.096
LMX→OC→P	0.192** (0.050)	0.110–0.306	0.107–0.304
LMX→CY→OC→P	0.034** (0.010)	0.018–0.058	0.017–0.056

Note: Total effect (LMX → P) = 0.586** (0.079); Standard errors are placed in parentheses.

LMX, leader–member exchange; CY, cyberloafing; OC, organisational commitment; P, employee performance; CI, confidence interval.

*, $p < 0.05$; **, $p < 0.01$.

2025). Similarly, Ogunja et al. (2025) conducted their study in Kenya, a developing economy that shares certain cultural characteristics with Türkiye, and their findings also emphasise the pivotal role of LMX relationships in enhancing employee commitment and performance. However, when the cultural context is considered, some studies examining the effects of LMX on work outcomes present contradictory findings. For instance, Anand et al. (2011) indicate that in collectivist societies, where greater emphasis is placed on collaboration and coordination with colleagues, individuals respond to authority figures not only on the basis of personal relationships or likability, but also in accordance with role-based obligations. Therefore, in such cultures, high-quality relationships with leaders may be less influential in improving employee performance compared to individualistic cultures.

In contrast, the findings of the present study – conducted in the Turkish context, which reflects both collectivist and high power distance cultural characteristics – demonstrate that LMX has a significant and positive effect on employee performance. This highlights the need for more comprehensive and context-sensitive analyses to better understand how cultural differences shape the mechanisms through which LMX influences work outcomes.

In addition, when evaluated in the theoretical framework, such results indicate that LMX has a negative effect on CY, yet a positive impact on OC and employee performance, supporting the views put forward by the 'Social Exchange Theory' (Blau, 1964) and the 'Norm of Reciprocity' (Gouldner, 1960).

The analyses conducted to examine the predictive effect of CY, which stands out among the behaviours that harm the organisation in the digitalised business world, on OC and employee performance ultimately revealed that such behaviour has a negative and significant predictive effect on both variables. In other words, CY, which is defined as a voluntary behaviour that violates corporate norms and threatens the welfare of the organisation (Lim, 2002), is an important factor that negatively affects not only employees' sense of commitment to the organisation but also their performance. In another study, Niaei et al. (2014) reported that the act of CY among employees was negatively correlated with each dimension of OC. Similarly, the study conducted by Aladwan et al. (2021) emphasised that CY is a situation that negatively affects an employee's sense of commitment to the organisation. Some previous research results on the effect of CY on employee performance (Afacan Fındıklı, 2016; Erdem, 2020; Nyoto et al., 2023; Sao et al., 2020; Sutoni, 2023) also support the finding that employees who engage in CY end up devoting most of their time to non-work Internet use, which negatively affects their P. However, the current literature also includes conflicting findings suggesting a positive relationship between CY and employee performance. In this regard, the findings obtained in this study contradict the results of those studies that propose a positive association between CY and employee performance.

The inconsistent findings across various studies regarding the relationship between CY, employee performance and OC may be attributed to the cultural context in which individuals operate. Culture is a significant determinant of human behaviour, and cultural values play a critical role in shaping judgement and decision-making processes. Accordingly, unproductive workplace behaviours such as CY are substantially influenced by cultural dimensions, including power distance and individualism (Osei et al., 2022). In a comprehensive cross-cultural study conducted by Ugrin et al. (2018) across 17 countries, it was found that CY behaviour is more prevalent in cultures characterised by low power distance. Furthermore, employees in individualistic cultures tend to prioritise personal gratification over potential harm to the organisation, thereby demonstrating a greater propensity to engage in CY (Ugrin et al., 2018). These findings clearly illustrate the impact of cultural context on both the perceived meaning of CY and its potential consequences. The contradictory evidence highlights the complex nature of CY and the multifaceted effects it may have on work-related outcomes (Lim & Teo, 2024; Tandon et al., 2021). Therefore, in order to better understand and potentially leverage the benefits of CY, there is a pressing need for further scholarly research examining its impact on workplace outcomes.

The results of the analysis conducted to determine the effect of employees' OC on their performance, which was developed based on the research model, revealed that OC had a positive and significant effect on employee performance. In other words, OC is one of the premises of employee performance. It could be argued that employees with high OC are willing to make more effort to contribute to the organisation. The results of similar previous studies also indicate the existence of a relationship between OC and employee performance (Hendri, 2019; Ramli, 2017; Tolentino, 2013). Meyer et al. (1989) stated that commitment, demonstrating the sense of identification with and involvement in the organisation, would yield positive consequences for the organisation in terms of both reducing turnover rate and displaying superior performance.

Finally, the present study examined the mediating role of CY and OC in the predictive relationship between LMX and employee performance, as well as the serial mediation effect of these two variables on employee performance. When the indirect effects revealed by the structural equation model were examined, it was found that both CY and OC had a mediating role in the predictive relationship between LMX and employee performance, and that these two variables together had a serial mediation effect on employee performance. The results revealed that LMX had both a direct and indirect impact on employee performance. The relevant literature review showed that no study had ever dealt with the mediation and serial mediation effects of CY and OC together in relation to the effect of LMX on employee performance.

Conclusion

Our results have shown that LMX, a leadership approach that focuses on the relationship between leader and follower, is an

important variable affecting employees' acts of CY, OC and P. Based on this, it can be suggested that the quality of the relationship between the leader and the employee positively affects the attitudes of the employees towards the organisation, thereby contributing to the decrease in negative behaviour such as CY as opposed to the increase in OC and performance. Furthermore, employees who establish a stronger bond with their managers are highly likely to develop a more positive attitude towards the organisation and are more likely to both move away from CY tendencies and exhibit higher commitment and performance. In order to increase the effectiveness of the organisation and ensure that it achieves its goals, managers should, therefore, avoid behaviours that may create a perception of discrimination among employees and lead to different reactions. It is equally important that they find ways to build relationships with all employees based on trust and fairness. This approach will increase employee commitment and positively affect their performance.

The rapid development in communication technologies in recent years has made it compulsory to execute many activities within organisations over the Internet. While the widespread use of the Internet has enabled work to be performed faster, it has also increased the tendency of employees to use the Internet for entertainment and non-work purposes. The results of this study have revealed that this deviance behaviour called 'CY', which leads to undesirable consequences for organisations, is a variable that ultimately has a negative influence on employees' OC and performance. Organisations should take necessary measures to reduce CY behaviour and prevent the emergence of its negative effects. However, it should be noted that a complete ban on Internet use may cause stress and dissatisfaction among employees. For that reason, the measures to be taken should be designed to allow employees to balance both work and non-work use of the Internet.

As with any research, this study has certain limitations. Foremost among these is that the data were collected solely from bank and private sector employees within the context of Türkiye. This limits the generalisability of the findings. To enhance the generalisability of future research, it is recommended that studies be conducted with more comprehensive samples by collecting data from diverse cultural contexts and various sectors. In order to obtain more generalisable results, it is recommended that future studies be conducted with a larger study sample and by collecting data from different sectors. Another limitation of the study is that it was cross-sectional. Future studies may be based on collecting the data longitudinally for the purpose of enabling to reveal the differences in attitudes and behaviours over time and to make comparative evaluations. Despite all these limitations, this study is believed to contribute to the literature by elucidating the direct and indirect relationships between LMX, cyberloafing, OC and employee performance.

Acknowledgements

This article is based on research that was previously presented in abstract form at the International Conference on Applied Economics and Finance (ICOAEF XI), held in Thessaloniki, Greece, on 17 May 2024. The abstract has since been expanded and revised into a full article for journal publication. This republication is authorised by the conference organisers. The full article is available at https://www.icoaef.com/wp-content/uploads/2024/12/ICOAEF_XI_FULL_PAPER_MAY_2024.pdf.

Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

İ.D.Ü. and E.İ. contributed equally to the conceptualisation, writing and editing of the article and share first authorship. All authors contributed to the article, discussed the results and approved the final version for submission and publication.

Funding information

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Data availability

The authors confirm that the data supporting the findings of this study are available within the article and from the corresponding author, E.İ., upon reasonable request.

Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. It does not necessarily reflect the official policy or position of any affiliated institution, funder, agency or the publisher. The authors are responsible for this article's results, findings and content.

References

Afacan Findikli, M. (2016). Sanal kaytarma ve iş performansi ilişkisi: Sağlık ve tekstil sektörü çalışanlarının karşılaştırılması, [Relationship between cyberloafing and work performance: Comparision of health and textile industry workers], *International Journal of Social Inquiry, 9*(1), 33–62.

Ahmadi, S.A.A., Tajabadi, S.H., Nagahi, M., & Sarchoghaei, M.N. (2014). Effect of leader-member exchange on perceived organizational support. *International Journal of Research in Organisational Behaviour and Human Resource Management, 2*(1), 98.

Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Aladwan, M., Muala, I., & Salleh, H. (2021). Cyberloafing as a mediating variable in the relationship between workload and organisational commitment. *Management Science Letters, 11*(3), 1013–1022. https://doi.org/10.5267/j.msl.2020.9.041

Akman, Y. (2021). Lider-üye etkileşimi ile performans arasindaki ilişkinin incelenmesi: Bir meta-analiz çalışması [Examining the relationship between leader-member exchange and performance: A meta-analysis study]. *Afyon Kocatepe Üniversitesi Sosyal Bilimler Dergisi, 23*(4), 1308–1321. https://doi.org/10.32709/akusosbil.886078

Anand, S., Hu, J., Liden, R.C., & Vidyarthi, P.R. (2011). Leader–member exchange: Recent research findings and prospects for the future. In A. Bryman, D. Collinson, K. Grint, B. Jackson, & M. Uhl-Bien (Eds.), *Sage handbook of leadership* (pp. 311–325). Sage.

Arar, T., Öneren, M., Öztürk, L., & Yurdakul, G. (2022). The relationship between leader-member exchange and cyberloafing: The mediating role of motivation, In Ş. Karabulut (Ed.), *İşletme Biliminde Muhasebe, Pazarlama ve Organizasyon Konuları* [*Accounting, Marketing, and Organizational Topics in Business Administration*] (pp. 1–11). Ekin Yayınevi.

Ariani, D.W., & Feriyanto, N. (2024). How leader-member exchange affects work outcomes in small-and-medium enterprises?. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur, 22*, 1–12. https://doi.org/10.4102/sajhrm.v22i0.2397

Arslan, R., & Demirci, K. (2015). Örgütlerde öğrenen örgüt kültürüne ilişkin algilarin örgütsel bağlilik üzerine etkisi ve kamu kurumunda bir uygulama. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi, 43*, 24–38.

Avolio, B.J., Walumbwa, F.O., & Weber, T.J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology, 60*, 421–449. https://doi.org/10.1146/annurev.psych.60.110707.163621

Batabyal, S.K., & Bhal, K.T. (2020). Traditional cyberloafing, mobile cyberloafing and personal mobile-internet loafing in business organizations: Exploring cognitive ethical logics. *Journal of Information, Communication & Ethics in Society, 18*(4), 631–647. https://doi.org/10.1108/JICES-07-2019-0081

Bayram, N. (2010). Introduction to Structural Equation Modeling: Amos Practices. Bursa: Ezgi Kitabevi.

Beugré, C.D., & Kim, D. (2006). Cyberloafing: Vice or virtue?. In M. Khosrow-Pour (Ed.), *Emerging trends and challenges in information technology management* (pp. 1–3), Idea Group Publishing.

Biswas, S., & Varma, A. (2012). Linkages between antecedents of in-role performance and intentions to quit: An investigation in India. *International Journal of Human Resource Management, 23*(5), 987–1005. https://doi.org/10.1080/09585192.2012.651328

Blanchard, A.L., & Henle, C.A. (2008). Correlates of different forms of cyberloafing: The role of norms and external locus of control. *Computers in Human Behavior, 24*(3), 1067–1084. https://doi.org/10.1016/j.chb.2007.03.008

Blau, G., Yang, Y., & Ward-Cook, K. (2006). Testing a measure of cyberloafing. *Journal of Allied Health, 35*(1), 9–17.

Blau, P.M. (1964). *Exchange and power in social life*. Wiley.

Breevaart, K., Bakker, A.B., Demerouti, E., & Van Den Heuvel, M. (2015). Leader-member exchange, work engagement, and job performance. *Journal of Managerial Psychology, 30*(7), 754–770. https://doi.org/10.1108/JMP-03-2013-0088

Brief, A.P., & Motowidlo, S.J. (1986). Prosocial organizational behavior. *Academy of Management Review, 11*, 710–725. https://doi.org/10.2307/258391

Brock, M.E., Martin, L.E., & Buckley, M.R. (2013). Time theft in organizations: The development of the Time Banditry Questionnaire. *International Journal of Selection and Assessment, 21*(3), 309–321. https://doi.org/10.1111/ijsa.12040

Brower, H.H., Schoorman, F.D., & Tan, H.H. (2000). A model of relational leadership: The integration of trust and leader-member exchange. *Leadership Quarterly, 11*(2), 227–250. https://doi.org/10.1016/S1048-9843(00)00040-0

Buchanan, B. (1974). Building organizational commitment: The socialization of managers in work organizations. *Administrative Science Quarterly, 19*(4), 533–546. https://doi.org/10.2307/2391809

Candan, H., & Ince, M. (2016). Siber kaytarma ve örgütsel bağlılık arasındaki ilişkinin incelenmesine yönelik emniyet çalışanları üzerine bir araştırma, *Niğde Universitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 9*(1), 229–235.

Casimir, G., Ngee Keith Ng, Y., Yuan Wang, K., & Ooi, G. (2014). The relationships amongst leader-member exchange, perceived organizational support, affective commitment, and in-role performance: A social-exchange perspective. *Leadership & Organization Development Journal, 35*(5), 366–385. https://doi.org/10.1108/LODJ-04-2012-0054

Çekmecelioğlu, H.G., & Ülker, F. (2014). Leader-member exchange and its impact on employee attitudes: A research on education sector. *Kocaeli University Journal of Social Sciences*, 28, 35–58.

Cerit, Y. (2012). The relationship between leader-member exchange and classroom teachers' performance. *Balikesir University The Journal of Social Sciences Institute*, *15*(28), 33–46.

Chaurasia, S., & Shukla, A. (2013). The influence of leader-member exchange relations on employee engagement and work role performance. *International Journal of Organization Theory and Behavior, 16*(4), 465–493. https://doi.org/10.1108/IJOTB-16-04-2013-B002

Çiriş Yildiz, C., Atar, H., Bahçecik, A.N., & Arslan, E. (2021). The effect of leader member exchange level on cyberloafing behavior in nurses. *Turkiye Klinikleri Journal of Nursing Sciences, 13*(2), 353–363. https://doi.org/10.5336/nurses.2020-75616

Cogliser, C.C., Schriesheim, C.A., Scandura, T.A., & Gardner, W.L. (2009). Balance in leader and follower perceptions of leader-member exchange: Relationships with performance and work attitudes. *Leadership Quarterly, 20*(3), 452–465. https://doi.org/10.1016/j.leaqua.2009.03.010

Çöl, G. (2004). The concept of organizational commitment and its relationship with similar concepts. *Journal of Industrial Relations and Human Resources*, *6*(2), 40–60.

Çöl, G., & Gül, H. (2005). The effects of personal characteristics on organizational commitment: A research in Public Universities. *Trends in Business and Economics, 19*(1), 291–306.

Conner, M., & Armitage, C.J. (1998). Extending the theory of planned behavior: A review and avenues for further research. *Journal of Applied Social Psychology, 28*(15), 1429–1464. https://doi.org/10.1111/j.1559-1816.1998.tb01685

Cropanzano, R., & Mitchell, M.S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31*(6), 874–900. https://doi.org/10.1177/0149206305279602

Dansereau, F., Graen, G., & Haga, W.J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organisational Behavior and Human Performance, 13*(1), 46–78. https://doi.org/10.1016/0030-5073(75)90005-7

Deluga, R.J., & Perry, J.T. (1994). The role of subordinate performance and ingratiation in leader-member exchanges. *Group & Organisation Management, 19*(1), 67–86. https://doi.org/10.1177/1059601194191004

Dionne, S.D., Sayama, H., Hao, C., & Bush, B.J. (2010). The role of leadership in shared mental model convergence and team performance improvement: An agent-based computational model. *Leadership Quarterly, 21*(6), 1035–1049. https://doi.org/10.1016/j.leaqua.2010.10.007

Dulebohn, J.H., Bommer, W.H., Liden, R.C., Brouer, R.L., & Ferris, G.R. (2012). A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future. *Journal of Management, 38*(6), 1715–1759. https://doi.org/10.1177/0149206311415280

Erdem, A.T. (2020). A research in the information sector on the mediating role of work engagement in the effect of cyberloafing behavior on work performance. *Journal of Business Research-Turk, 12*(4), 3843–3858. https://doi.org/10.20491/isarder.2020.1076

Erdogan, B., & Bauer, T.N. (2015). Leader–member exchange theory. In J.D. Wright (Ed.), *International encyclopedia of the social & behavioral sciences*, 2nd ed., pp. 641–647.

Eze, I.F., Lose, T., & Ijeoma, O. (2024). The effects of cyberloafing on employees' job performance among administrative staff at a university. *International Journal of Social Science Research and Review, 7*(1), 400–413.

Francis, M.E. (2010). *The ties that bind: Examining the effects of social exchange variables on turnover intentions among executives*. Doctoral dissertation, ProQuest Dissertations and Theses database, The University of San Francisco.

George, J.M., & Brief, A.P. (1992). Feeling good-doing good: A conceptual analysis of the mood at work-organizational spontaneity relationship. *Psychological Bulletin, 112*(2), 310–329. https://doi.org/10.1037/0033-2909.112.2.310

Gerstner, C.R., & Day, D.V. (1997). Meta-analytic review of leader–member exchange theory: Correlates and construct issues. *Journal of Applied Psychology, 82*(6), 827–844. https://doi.org/10.1037/0021-9010.82.6.827

Göksel, A., & B. Aydıntan, D. (2012). The effect of leader-member exchange on organizational commitment: An emprical research. *Suleyman Demirel University Journal of Faculty of Economics and Administrative Sciences, 17*(2), 247–271.

González-Navarro, P., Talavera-Escribano, E., Zurriaga-Lloréns, R., & Llinares-Insa, L.I. (2019). Culture, work, and subjective well-being: The role of LMX and resilience in Spanish and Chinese cultures. *International Journal of Environmental Research and Public Health, 16*(24), 2–16. https://doi.org/10.3390/ijerph16244945

Gouldner, A.W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*(2), 161–178. https://doi.org/10.2307/2092623

Graen, G., & Cashman, J.F. (1975). A role making model in formal organizations: A developmental approach. In J.G. Hung, & L.L. Larson (Eds.), *Leadership frontiers* (pp. 143–165), Kent State University Press.

Graen, G.B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader–member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly, 6*(2), 219–247. https://doi.org/10.1016/1048-9843(95)90036-5

Hair Jr., J.F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. European Business Review, 26, 106-121. https://doi.org/10.1108/EBR-10-2013-0128

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2018) *Multivariate data analysis* (8th ed.). Cengage.

Hendri, M.I. (2019). The mediation effect of job satisfaction and organizational commitment on the organizational learning effect of the employee performance. *International Journal of Productivity and Performance Management, 68*(7), 1208–1234. https://doi.org/10.1108/IJPPM-05-2018-0174

Iqbal, A., Ijaz, M. Latif, F., & Mushtaq, H. (2015). Factors affecting the employee's performance: A case study of banking sector in Pakistan. *European Journal of Business and Social Sciences, 4*(8), 309–318. https://doi.org/10.6007/IJARAFMS/v7-i1/2722

Jaiswal, N.K., & Dhar, R.L. (2016). Fostering employee creativity through transformational leadership: Moderating role of creative self-efficacy. *Creativity Research Journal, 28*, 367–371. https://doi.org/10.1080/10400419.2016.1195631

Jaworski, B.J., & Kohli, A.K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing, 57*, 53–70. https://doi.org/10.2307/1251854

Juwita, J., Ahman, E., Sojanah, J., & Rofaida, R. (2024). The influence of cyberloafing behavior and job stress on employee performance. *Eurasia Proceedings of Educational and Social Sciences, 37*, 39–50. https://doi.org/10.55549/epess.857

Karriker, J.H., & Williams, M.L. (2009) Organizational justice and organizational citizenship behaviour: A mediated multifoci model. *Journal of Management, 35*(1), 112–135. https://doi.org/10.1177/0149206307309265

Khan, J., Saeed, I., Ali, A., & Nisar, H. (2021), "The mediating role of emotional exhaustion in the relationship between abusive supervision and employee cyberloafing behaviour", *Journal of Management and Research, 8*(1), 160–178. https://doi.org/10.29145/jmr/81/080107

Kirkman, B.L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal, 42*(1), 58–74. https://doi.org/10.2307/256874

Koay, K.Y. (2018). Workplace ostracism and cyberloafing: A moderated–mediation model. *Internet Research, 28*(4), 1122–1141. https://doi.org/10.1108/IntR-07-2017-0268

La Barbera, F., & Ajzen, I. (2021). Moderating role of perceived behavioral control in the theory of planned behavior: A preregistered study. *Journal of Theoretical Social Psychology, 5*(2), 35–45. https://doi.org/10.1002/jts5.83

Lee, J. (2005). Effects of leadership and leader-member exchange on commitment. *Leadership & Organisation Development Journal, 26*(8), 655–672. https://doi.org/10.1108/01437730510633728

Liden, R.C., & Graen, G. (1980). Generalizability of the vertical dyad linkage model of leadership. *Academy of Management Journal, 23*(3), 451–465. https://doi.org/10.2307/255511

Liden, R.C., & Maslyn, J.M. (1998). Multidimensionality of leader–member exchange: An empirical assessment through scale development. *Journal of Management, 24*(1), 43–72. https://doi.org/10.1016/S0149-2063(99)80053-1

Lim, V.K.G. (2002). The IT way of loafing on the job: Cyberloafing, neutralizing and organizational justice. *Journal of Organizational Behavior, 23*(5), 675–694. https://doi.org/10.1002/job.161

Lim, V.K.G. & Teo, T.S.H. (2022). Cyberloafing: A review and research agenda. *Applied Psychology: An International Review, 73*(1), 441–484. https://doi.org/10.1111/apps.12452

Lim, V.K.G., & Teo, T.S.H. (2005). Prevalence, perceived seriousness, justification and regulation of cyberloafing in Singapore: An exploratory study. *Information & Management, 42*(8), 1081–1093. https://doi.org/10.1016/j.im.2004.12.002

Lim, V.K.G., & Teo, T.S.H. (2024). Cyberloafing: A review and research agenda. *Applied Psychology: An International Review, 73*(1), 441–484. https://doi.org/10.1111/apps.12452

Loi, R., & Ngo, H.-Y. (2009). Work outcomes of relational demography in Chinese vertical dyads. *International Journal of Human Resource Management, 20*(8), 1704–1719. https://doi.org/10.1080/09585190903087057

Major, D.A., & Morganson, V.J. (2011). Coping with work-family conflict: A leader-member exchange perspective. *Journal of Occupational Health Psychology, 16*(1), 126–138. https://doi.org/10.1037/a0021727

Martin, R., Guillaume, Y., Thomas, G., Lee, A., & Epitropaki, O. (2016). Leader–member exchange (LMX) and performance: A meta-analytic review. *Personnel Psychology, 69*(1), 67–121. https://doi.org/10.1111/peps.12100

Maslyn, J.M., & Uhl-Bien, M. (2001). Leader–member exchange and its dimensions: Effects of self-effort and other's effort on relationship quality. *Journal of Applied Psychology, 86*(4), 697–708. https://doi.org/10.1037/0021-9010.86.4.697

Mehta, A. (2009). *Examining the role of personal, social exchange, and contextual fit variables in employee work outcomes under continuous change: A field investigation*. Doctoral dissertation, ProQuest Dissertations and Theses database, Auburn University.

Mercan, N. (2015). Whistleblowing behaviour examined with Ajza's Theory of planned behaviour. *Sosyal ve Beşeri Bilimler Dergisi, 7*(2), 1–14.

Meydan, C.H. & Şeşen, H. (2011). Structural Equation Modeling AMOS Practices. Ankara: Detay Publishing.

Meyer, J.P., & Allen, N.J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1*(1), 61–89. https://doi.org/10.1016/1053-4822(91)90011-Z

Meyer, J.P., Paunonen, S.V., Gellatly, I.R., Goffin, R.D., & Johnson, D.N. (1989). Organizational commitment and job performance: It's the nature of the commitment that counts. *Journal of Applied Psychology, 74*(1), 152–156. https://doi.org/10.1037/0021-9010.74.1.152

Mitchell, M.S., Cropanzano, R.S., & Quisenberry, D.M. (2012). Social exchange theory, exchange resources, and interpersonal relationships: A modest resolution of theoretical difficulties. In K. Törnblom, & A. Kazemi (Eds.), *Handbook of social resource theory: Theoretical extensions, empirical insights, and social applications* (pp. 99–118). Springer Science + Business Media.

Morrison, E.W. (1994). Role definitions and organizational citizenship behaviour: The importance of the employee's perspective. *Academy of Management Journal, 37*(6), 1543–1567. https://doi.org/10.2307/256798

Motowidlo, S.J., & Kell, H.J. (2012). Job performance. In N.W. Schmitt, & S. Highhouse (Eds.), *Handbook of psychology: Industrial and organizational psychology* (pp. 82–103). John Wiley & Sons, Inc.

Motowidlo, S.J., Borman, W.C., & Schmit, M.J. (1997). A theory of individual differences in task and contextual performance. *Human Performance, 10*, 71–83. https://doi.org/10.1207/s15327043hup1002_1

Mowday, R., Porter, L., & Steers, R. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. Academic Press.

Mowday, R.T., Steers, R.M., & Porter, L.W. (1979) The measurement of organizational commitment. *Journal of Vocational Behaviour, 14*(2), 224–247. https://doi.org/10.1016/0001-8791(79)90072-1

Muafi, U. (2023). The effect of cyberloafing on organisational commitment: The role of emotional exhaustion and job overload. *Jurnal Bisnis: Teori dan Implementasi, 14*(2), 323–337. https://doi.org/10.18196/jbti.v14i2.19486

Niaei, M., Peidaei, M.N., & Nasiripour, A.A. (2014). The relation between staff cyberloafing and organizational commitment in organization of environmental protection. *Kuwait Chapter of Arabian Journal of Business and Management Review, 3*(7), 59–71. https://doi.org/10.12816/0018272

Northouse, P.G. (2021). *Leadership theory and practice* (9th ed.). Sage.

Nyoto, S., Priyono, S., & Renaldo, N. (2023). Emotional intelligence, workload, and cyberloafing on organizational commitment and performance of teachers at the Pelalawan High School Level. *Journal of Applied Business and Technology, 4*(2), 134–143. https://doi.org/10.35145/jabt.v4i2.129

Ogunja, M., Shurong, Z., Ailing, L., Wang, Y., & Mante, D.A. (2025). Analyzing LMX impact on organizational performance on SMEs: An integrated fuzzy reasoning approach. *Current Psychology, 44*, 2125–2140. https://doi.org/10.1007/s12144-024-07254-0

Oravec, J.A. (2002). Constructive approaches to Internet recreation in the workplace. *Communications of the ACM, 45*(1), 60–63. https://doi.org/10.1145/502269.502298

Osei, H.V., Ampofo, I.A.J., & Osei, A. (2022). The role of prescriptive social norms on employees' cyberloafing: The moderating effect of power distance and co-workers' interdependency. *International Journal of Organization Theory & Behavior, 25*(3/4), 131–149. https://doi.org/10.1108/IJOTB-11-2021-0210

Othman, R., Fang Ee, F., & Lay Shi, N. (2010). Understanding dysfunctional leader-member exchange: Antecedents and outcomes. *Leadership & Organization DevelopmentJournal,31*(4),337–350.https://doi.org/10.1108/01437731011043357

Özdemir, L. (2000). Dikey ikili bağlanti modeli çerçevesinde yönetici- ast ilişkileri: Cumhuriyet Ünverstesinde amprik bir inceleme. In *8 Ulusal Yönetim ve Organizasyon Kongresi, Mayıs 2000*, Erciyes University (pp. 617–630).

Phillips, A.S., & Bedeian, A.G. (1994). Leader-follower exchange quality: The role of personal and interpersonal attributes. *Academy of Management Journal, 37*(4), 990–1001. https://doi.org/10.2307/256608

Pillai, R., Scandura, T.A., & Williams, E.A. (1999). Leadership and organizational justice: Similarities and differences across cultures. *Journal of International Business Studies, 30*(4), 763–779. https://doi.org/10.1057/palgrave.jibs.8490838

Ramli, A.H. (2017). Organizational commitment and employee performance at distributor companies. *Business and Entrepreneurial Review, 17*(2), 121–134. https://doi.org/10.25105/ber.v17i2.5193

Rehman, N., Mahmood, A., Ibtasam, M., Murtaza, S.A., Iqbal, N., & Molnár, E. (2021). The psychology of resistance to change: The antidotal effect of organizational justice, support and leader-member exchange. *Frontiers in Psychology, 12*, 1–15. https://doi.org/10.3389/fpsyg.2021.678952

Rockstuhl, T., Dulebohn, J.H., Ang S., & Shore L.M. (2012). Leader–member exchange (LMX) and culture: A meta-analysis of correlates of LMX across 23 countries. *Journal of Applied Psychology, 97*(6), 1097–1130. https://doi.org/10.1037/a0029978

Sao, R., Chandak, S., Patel, B., & Bhadade, P. (2020). Cyberloafing: Effects on employee job performance and behaviour. *International Journal of Recent Technology and Engineering, 8*(5), 1509–1515. https://doi.org/10.35940/ijrte.E4832.018520

Scandura, T.A., & Graen, G.B. (1984). Moderating effects of initial leader–member exchange status on the effects of a leadership intervention. *Journal of Applied Psychology, 69*(3), 428–436. https://doi.org/10.1037/0021-9010.69.3.428

Scandura, T.A., & Schriesheim, C.A. (1994). Leader-member exchange and supervisor career mentoring as complementary constructs in leadership research. *Academy of Management Journal, 37*(6), 1588–1602. https://doi.org/10.2307/256800

Schriesheim, C.A., Castro, S.L., Zhou, X.T., & Yammarino, F.J. (2001). The folly of theorizing 'A' but testing 'B': A selective level-of-analysis review of the field and detailed leader–member-exchange illustration. *Leadership Quarterly, 12*(4), 515−551. https://doi.org/10.1016/S1048-9843(01)00095-9

Suharto, S., & Hendri, N. (2019). The impact of organisational commitment on job performance. *International Journal of Economics and Business Administration, 7*(2), 189–206. https://doi.org/10.35808/ijeba/227

Sutoni, S. (2023). The effect of cyberloafing, leader member exchange and innovative work behavior on employee performance. *Dinasti International Journal of Education Management and Social Science, 4*(5), 783–799.

Tandon, A., Kaur, P., Ruparel, N., Islam, J.U., & Dhir, A. (2021). Cyberloafing and cyberslacking in the workplace: Systematic literature review of past achievements and future promises. *Internet Research, 32*(1), 55–89. https://doi.org/10.1108/INTR-06-2020-0332

Terpstra-Tong, J., Ralston, D.A., Treviño, L.J., Naoumova, I., De La Garza Carranza, M.T., Furrer, O., Li, Y., & Darder, F.L. (2020). The quality of leader-member exchange (LMX): A multilevel analysis of individual-level, organizational-level and societal-level antecedents. *Journal of International Management, 26*(3), 1–18. https://doi.org/10.1016/j.intman.2020.100760

Thrasher, G., Dickson, M., Biermeier-Hanson, B., & Najor-Durack, A. (2020). Social identity theory and leader–member exchange: Individual, dyadic and situational factors affecting the relationship between leader–member exchange and job performance. *Organization Management Journal, 17*(3), 133−152. https://doi.org/10.1108/OMJ-04-2019-0719

Tolentino, R.C. (2013). Organizational commitment and job performance of the academic and administrative personnel. *International Journal of Information Technology and Business Management, 15*(1), 51–59.

Turgut, H., Tokmak, İ., & Ateş, M. (2015). The effect of leader - member exchange on the employee performance on the role of the employees' perception of organizational justice. *Çankırı Karatekin University Journal of The Faculty of Economics and Administrative Sciences, 5*(2), 417–442. https://doi.org/10.18074/cnuiibf.201

Ugrin, J.C., Pearson, J.M., & Nickle, S.M. (2018) An examination of the relationship between culture and cyberloafing using the Hofstede Model. *Journal of Internet Commerce, 17*(1), 46–63. https://doi.org/10.1080/15332861.2018.1424395

Uhl-Bien, M. (2006). Relational leadership theory: Exploring the social processes of leadership and organizing. *Leadership Quarterly, 17*(6), 654–676. https://doi.org/10.1016/j.leaqua.2006.10.007

Uhl-Bien, M., & Maslyn, J.M. (2003). Reciprocity in manager-subordinate relationships: Components, configurations and outcomes. *Journal of Management, 29*(4), 511–532. https://doi.org/10.1016/S0149-2063(03)00023-0

Uhl-Bien, M., Graen, G.B., & Scandura, T.A. (2000). Implications of leader-member exchange (LMX) for strategic human resource management system: Relationships as social capital for competitive advantage. *Research in Personnel and Human Resource Management, 18*, 137–186.

Usman, M., Javed, U., Shoukat, A., & Bashir, N.A. (2019). Does meaningful work reduce cyberloafing? Important roles of affective commitment and leader-member exchange. *Behaviour & Information Technology, 40*(2), 206–220. https://doi.org/10.1080/0144929X.2019.1683607

Wang, C.J. (2016). Does leader-member exchange enhance performance in the hospitality industry?: The mediating roles of task motivation and creativity. *International Journal of Contemporary Hospitality Management, 28*(5), 969–987. https://doi.org/10.1108/IJCHM-10-2014-0513

Williams, L.J., & Anderson, S.E. (1991). Job satisfaction and organisational commitment as predictors of organisational citizenship and in-role behaviors. *Journal of Management, 17*(2), 601–617. https://doi.org/10.1177/014920639101700305

Willie, M.M. (2025). Leader-member exchange and organisational performance: A review of communication, biases, and personality challenges. *Golden Ratio of Human Resource Management, 5*(1), 120–132. https://doi.org/10.52970/grhrm.v5i1.697

Xu, Z., Yang, F., & Peng, J. (2023). How does authentic leadership influence employee voice? From the perspective of the theory of planned behavior. *Current Psychology, 42*, 1851–1869. https://doi.org/10.1007/s12144-021-01464-6

Yi, X. (2002). *Guanxi and leader–member exchange in the Chinese context*. Doctoral dissertation, ProQuest Dissertations and Theses database, University of Illinois.