



Queensland University of Technology
Brisbane Australia

This may be the author's version of a work that was submitted/accepted for publication in the following source:

[Nisar, Mohammad](#), Zolin, Roxanne, & Muhammad, Noor
(2020)

Linking transformational leadership and continuous improvement: The mediating role of trust.

Management Research Review, 43(8), pp. 931-950.

This file was downloaded from: <https://eprints.qut.edu.au/135483/>

© Consult author(s) regarding copyright matters

This work is covered by copyright. Unless the document is being made available under a Creative Commons Licence, you must assume that re-use is limited to personal use and that permission from the copyright owner must be obtained for all other uses. If the document is available under a Creative Commons License (or other specified license) then refer to the Licence for details of permitted re-use. It is a condition of access that users recognise and abide by the legal requirements associated with these rights. If you believe that this work infringes copyright please provide details by email to qut.copyright@qut.edu.au

Notice: *Please note that this document may not be the Version of Record (i.e. published version) of the work. Author manuscript versions (as Submitted for peer review or as Accepted for publication after peer review) can be identified by an absence of publisher branding and/or typeset appearance. If there is any doubt, please refer to the published source.*

<https://doi.org/10.1108/MRR-06-2019-0268>



Linking transformational leadership and continuous improvement: the mediating role of trust.

Journal:	<i>Management Research Review</i>
Manuscript ID	MRR-06-2019-0268.R2
Manuscript Type:	Original Article
Field Categories:	Organizational behavior
Keywords:	Transformational leadership, Leadership, Trust, Organization identification, Social exchange, Continuous improvement

SCHOLARONE™
Manuscripts

Linking transformational leadership and continuous improvement: the mediating role of trust

Abstract

Purpose: The main objective of this study is to investigate employee trust in the leader as the underlying mechanism between transformational leadership and employees’ organizational identification and their continuous improvement efforts.

Design/methodology/approach: Survey data were collected from 282 employees, working in eight different private and public sector organizations from the Banking, Higher Education, Telecommunications, and Health sectors in Pakistan. Structural Equation Modeling was used to test the study hypotheses.

Finding: The results support the hypothesized relationships, showing that trust in the leader partially mediates the relationship of transformational leadership with organizational identification and continuous improvement efforts.

Research limitations/implications: This study relied upon cross-sectional data, which does not satisfy the conditions to establish causality.

Practical implications: The results of this study will help organizations and practitioners to understand the importance of trust between transformational leaders and followers, which ultimately results in higher organizational identification and continuous improvement.

Originality/Value: Using the broader framework of Social Exchange Theory (Blau, 1964), this study contributes to extant employee–organization relationship literature by proposing and testing trust in the leader as an underlying psychological mechanism that can explain the impact of transformational leadership on employees’ organizational identification and their continuous improvement efforts.

Key words: Transformational leadership, trust, organizational identification, continuous improvement efforts.

Introduction

Total Quality management (TQM), one of the major organizational change techniques, requires continuous improvement in all spheres of the organization. Continuous improvement means that employees are encouraged and empowered to always strive for better organizational performance. Studies show that continuous improvement brings incremental and innovative improvements in organizational processes, products, and services, and links lower cost to higher quality and increased market share (Anderson *et al.*, 1994; Deming, 1986). In the literature, continuous improvement is considered a proactive form of employee creativity, which involves the recognition of improving the quality and participation in those activities that result in quality improvement (Lee, 2004). Therefore, it is important to understand how leadership style can lead to continuous improvement.

Research shows that continuous improvement is generated by subordinates' competence-based trust in their leaders (Lee, 2004). A study found that continuous improvement is highly correlated with organizational capability (Bessant *et al.*, 2001). These authors argue that this phenomenon is a congregation of behavioral changes that establish the norm of innovation routines in the organization. It has also been found in the literature that the integrative role of managers is highly instrumental in transforming employees' attitudes and expectations about their work and the organization (Ali *et al.*, 2013). For example, managerial influence exists in structuring work performance through authority delegation, participation, and feedback, providing appropriate rewards and working conditions (Brewer, 1996). Therefore, bearing in mind the influential role of managers in developing employees' positive and negative attitudes towards their organization, this study focuses on the impact of transformational leadership on employees' continuous

improvement and their identification with the organization through a social exchange indicator (trust).

Among various leadership behaviors, transformational leadership is often linked with managerial effectiveness during organizational change (Bass and Riggio, 2006; Pawar and Eastman, 1997). Transformational leaders recognize the need for change, to create and share their compelling vision with employees, guide them through adaptations, and inspire them to accomplish the challenging goal of institutionalizing change (Bass, 1999). The term “transforming leadership” was coined by Burns (1978); however, it was extended by Bass (1985), identifying that in a volatile environment, transformational leadership is needed to *“broaden and elevate the interests of employees, generate awareness and acceptance of the purposes and missions of the organization, and stir the employees to look beyond their own self-interests for the good of the overall entity”* (Bass, 1990, p. 19). Transformational leadership is shown to be effective in both Western and non-Western societies (Bass, 1997), and correlates with individual and team-level positive job outcomes (Judge and Piccolo, 2004).

Past research has established the direct effect of transformational leadership on employee work outcomes, including job performance, creativity, and organizational citizenship behaviors (Burke *et al.*, 2007; Judge and Piccolo, 2004; Lowe *et al.*, 1996). Employees’ perceptions of their supervisor’s transformational leadership, to change their (employees) cognitive thinking and emotional responses and procedures that aid in implementing change strategies, should positively impact on employees’ organizational identification and their continuous improvement efforts (Wang and Rode, 2010). However, despite supervisors’ transformational leadership behaviors, not all employees feel that their goals and objectives are identical to their organization’s (Lin *et al.*, 2017). Likewise, continuous improvement efforts are apparent from some employees, while others

1
2
3 simply remain unproductive (Wang and Rode, 2010). One mechanism, among others, that can
4 explain why and how leadership behaviors impact on organizational identification and continuous
5 improvement efforts could be employees' trust in their leaders at work. It is argued that
6 transformational leadership behaviors will enhance employees' trust in their leader, which in turn
7 will transform into their oneness with the organization and continuous improvement. Therefore,
8 trust is taken as an underlying mechanism between transformational leadership and employees'
9 organizational identification and continuous improvement.
10
11
12
13
14
15
16
17
18

19 Organizational identification can be described as individuals' perceptions of oneness with
20 or belongingness to their organization, where they think of themselves as a collective entity, such
21 as defining themselves as members of the organization (Ashforth and Mael, 1989; Mael and
22 Ashforth, 1992). Leadership literature has established that transformational leaders instill a sense
23 of organizational membership among their subordinates (Kark *et al.*, 2003; Lord and Brown,
24 2001). In addition, meta-analytic findings suggest that employees with a high level of
25 organizational identification are more likely to focus on tasks that are more beneficial for the
26 organization, rather than focusing on their self-interests (Riketta, 2005).
27
28
29
30
31
32
33
34
35
36

37 Another important outcome variable in this study is continuous improvement, which can
38 be described as "*a consciously proactive form of employee activity*" (Lee, 2004, p. 624).
39 Continuous improvement is frequently described as a key element of TQM, involving the
40 recognition of and perceived responsibility for quality and undertaking of those activities directed
41 towards improving quality (Lee, 2004). It is important to note that ever-increasing global
42 competition makes continuous improvement strategically important to all kinds of organizations –
43 large and small, manufacturing and service.
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Research indicates that the mechanism by which transformational leaders influence their subordinates to accomplish goals has not been studied in a systematic way (Avolio *et al.*, 2004; Castro *et al.*, 2008). Several other scholars have suggested that attention should be paid to understand the processes which operate in transformational leadership (e.g. Bass, 1998; Conger *et al.*, 2000; Keskes, 2014). Organizational life plays a vital role in developing exchange relationships between the leader and followers; therefore, Social Exchange Theory (SET) (Blau, 1964; Cropanzano and Mitchel, 2005) can be used as a theoretical lens to understand the impact of transformational leadership and organizational justice on employee identification with their organization and continuous improvement.

Bearing in mind the importance of SET in leadership research (Blau, 1964), this study uses this theory to understand the exchange relationships between leaders and followers and their influence on employees' continuous improvement and organizational identification. SET is one of the most important conceptual paradigms being used to understand individuals' behaviors in the workplace (Cropanzano and Mitchell, 2005). SET posits that individuals develop exchange relationships based upon their experiences with others (Blau, 1968; Shore *et al.*, 2004). Following the norm of reciprocity (Gouldner, 1960; Levinson, 1965), individuals often repay others in the same tone as they receive; that is, good with good and bad with bad (Mitchell and Ambrose, 2007). It is evident from SET that trust is an important element in the relationship between the two parties. The SET framework can be used to understand the influence of transformational leadership on employee attitudes and behaviors (continuous improvement and organization identification) – which is missing in the literature – in which trust in the leader works as an underlying mechanism (Mayer *et al.*, 1995; McAllister and Bigley, 2002; Rousseau *et al.*, 1998). Therefore, the conceptual framework developed and tested in this study addresses the following broad research question:

1
2
3 *RQ: What explains the effectiveness of transformational leadership on employees'*
4 *performance outcomes, such as organizational identification and continuous improvement?*
5
6

7
8 The paper proceeds with the literature review section on transformational leadership, trust,
9 and followers' outcomes, and ends with identifying gaps in the literature. The theory and
10 hypotheses development section are then presented, followed by a comprehensive overview of the
11 research methodology and data analysis. The study's findings are then discussed in light of the
12 relevant literature, followed by the theoretical and managerial implications. Limitations and future
13 research directions are discussed at the end.
14
15
16
17
18
19
20
21
22
23

24 **Theory and hypotheses development**

25 **Transformational leadership, trust, and followers' outcomes**

26
27 Considerable research has been undertaken to examine the impact of transformational leadership
28 behaviors on employee-level outcomes such as task performance, citizenship behaviors, and
29 organizational commitment (Lowe *et al.*, 1996; Judge and Piccolo, 2004; Zhu *et al.*, 2013;
30 Walumbwa and Hartnell, 2011). Individual empirical studies and meta-analytic findings report a
31 significant relationship between transformational leadership behaviors and employee-level
32 outcomes across different geographic locations and industrial setups (Kirkman *et al.*, 2009; Jung
33 and Avolio, 1999; Avolio *et al.*, 2004). The theoretical lens of SET (Blau, 1964) has widely been
34 used to explain the impact of transformational leadership behaviors on employee-level outcomes
35 (Dirks and Ferrin, 2002), which state that fair treatment from a leader is reciprocated positively by
36 employees in terms of high performance. Subordinates' trust in their leader has been widely used
37 as a social exchange indicator to measure the extent of the social exchange relationship between
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

the leader and subordinates (Lavelle *et al.*, 2007; Colquitt *et al.*, 2007; Cropanzano and Mitchel, 2005).

Trust works as a strong bond between a supervisor and their subordinates in a workplace, which can be conceptualized in terms of perceived risk and vulnerability between the two parties (Mayer *et al.*, 1995; Rousseau *et al.*, 1998). Trust is considered as employees’ assumptions, beliefs, and expectations that the organization and its agents (leaders) will treat them equitably and in a favorable way (Carmeli and Spreitzer, 2009). A high degree of trust exists when employees perceive confidentiality, identify with the organization, and perceive a safe environment where they can keep themselves vulnerable (Cox, 2012). Trust in an organization is highly influenced by trust in supervisors, as supervisors are considered to be agents of the organization. This notion is supported by research where trust in a supervisor has a significant positive relationship with employees’ organizational citizenship behaviors (Cummings and Bromiley, 1996; Kacmar *et al.*, 2012). Previous research has established that trust in a leader develops a nurturing environment that promotes innovation (Carmeli and Spreitzer, 2009). In a similar way, other studies have found that employees’ trust in their leader positively influences workplace autonomy (Seppälä *et al.*, 2011), which results in higher job performance (Chen *et al.*, 2012; Huang, 2012; Li and Tan, 2013; Madjar and Ortiz-Walters, 2009). No attempt has been made so far to examine the underlying psychological mechanism between transformational leadership behaviors and employees’ continuous improvement efforts and their organizational identification. Therefore, the present study examines the individual-level impact of transformational leadership behaviors on employee-level outcomes in the context of Pakistan’s service industries. The impact of subordinates’ trust on their performance indicators, such as continuous improvement and organizational identification,

is taken at the individual level because, in the sample taken in this study, performance is usually measured at the individual rather than group level.

Transformational Leadership and trust

“Transformational leaders motivate their followers to perform beyond expectations by making them more aware of the importance and value of goals; inducing them to transcend self-interest for the good of the group/organization, and appealing to followers’ higher order needs” (Bass, 1985, p. 21). Transformational leaders provide idealized influence by acting as a role model, which elicits a higher level of trust in their followers (Jung and Avolio, 2000). Exhibiting exemplary behavior by the leader and willingness to put organizational goals first over personal benefits will serve to strengthen the emotional bond between the leader and follower, resulting in higher levels of affective trust (Zhu *et al.*, 2013). A recent study (Islam *et al.*, 2018) found that transformational leadership positively impacts employee commitment via job characteristics such as feedback, task variety, and decision-making autonomy.

Transformational leaders have charisma and are capable of transforming their followers’ values and characteristics, making them willing to pursue, and devoted to, the organization’s goals and objectives. The pleasant and harmonious environment they create facilitates a trustworthy relationship, where a common vision is shared because of the climate of trust (Bass, 1985). A study conducted by Gillespie and Mann (2004) on research and development teams found that transformational leadership practices correlate with team members’ trust in their leader. High on idealized influence, transformational leaders communicate the important values and a shared sense of purpose by role modeling, which induces their followers to rate their leader as high on integrity,

competence, and benevolence. A recent study found that transformational leadership has a positive significant impact on employees’ creative process management (Mahmood *et al.*, 2019).

We know from trust literature that trustworthiness (ability, benevolence, and integrity) predicts trust in the leader (Colquitt *et al.*, 2007). Articulation of the organizational goals in an attractive way is another important attribute of transformational leadership, called inspirational motivation, which motivates employees to focus their attention on shared goals, and transforms into trust in the leader (Bennis and Nanus, 1985; Fairholm, 1994; Sashkin and Fulmer, 1988). High on individualized consideration, transformational leaders are particularly concerned about their followers’ needs; they put their efforts into developing their followers’ strengths and satisfying their needs, which demonstrates that they value and care about their followers (i.e. they demonstrate benevolence), and, hence, can be trusted (Conger *et al.*, 2000; Fairholm, 1994; Jung and Avolio, 2000). A recent study found that transformational leadership has a significant positive relationship with followers’ creativity and organizational innovation through employees’ psychological empowerment, workplace relationships, support for innovation, and employee learning (Al Harbi *et al.*, 2019). With the changing business environment, leaders who encourage and teach their followers to approach the current and potential problems in new ways (intellectual stimulation) and critically re-examine assumptions are essentially coaching and developing their followers. Such behaviors reinforce the leader’s commitment to their followers, which helps in building their followers’ trust (Gillespie and Mann, 2004). Demonstrating behaviors that build followers’ pride, respect, and confidence (attributed charisma) develops high trust in leaders. The above discussed theory and research lead to the following hypothesis:

H1. Transformational leadership has a positive effect on trust in the leader.

Trust and organizational identification

Social Identity Theory states that an individual's self-concept is developed by social identity and personal identity (Tajfel and Turner, 2004). This theory further posits that individuals classify society in different social groups, such as gender, nationality, age groups, and so on (Tajfel and Turner, 2004). Social identification is the perception of belongingness to a group; on the other hand, organizational identification (OI) is a specific form of social identification in which individuals define themselves in terms of their organizational membership (Lee, 2004). OI is *"the degree to which a member defines him or herself by the same attributes that he or she believes define the organization"* (Dutton *et al.*, 1994, p. 239).

Team members show a high degree of identification with a group when they trust their fellow members, are satisfied with the group membership, and based upon their experiences with others (Blau, 1968; Coyle-Shapiro and Conway, 2004; Cropanzano and Mitchell, 2005). One study found that employees who have a high degree of trust in their leaders and organization identify themselves with their organization, which inclines them towards innovative work behaviors (Yu *et al.*, 2018). The norm of reciprocity (Gouldner, 1960; Levinson, 1965) predicts that individuals often repay others in the same token as they receive (e.g. good with good and bad with bad) (Mitchell and Ambrose, 2007). Employees identify themselves with their organizations when they perceive that their needs are fulfilled and trust prevails in the organization (Van Knippenberg *et al.*, 2004; De Cremer and van Knippenberg, 2002; Tyler and Blader, 2000). A study found that perceived organizational justice positively influences employee organizational trust, commitment, and identification (Chen *et al.*, 2015). Following the norm of reciprocity, employees identify themselves with their organization once they believe that their leader is trustworthy and considers

1
2
3 them as a valuable organizational asset. This is because they consider leaders as the true
4
5 representatives of organizations. Hence, the following hypothesis is proposed:
6

7
8 H2. Trust in the leader has a positive effect on organizational identification.
9

10
11
12 ***Trust and continuous improvement***
13

14
15 Continuous improvement can be defined as “an organization-wide process of focused and
16
17 sustained incremental innovation” (Bessant and Caffyn, 1997, p.10). Bessant and Caffyn further
18
19 state that continuous improvement is “An organization-wide process focused on sustained
20
21 incremental innovation,” (p. 10) which is considered a crucial element for the implementation of
22
23 TQM. Continuous improvement is a second name for TQM and is considered critical for the
24
25 gradual and continuous improvement in each and every process and function of the organization
26
27 (Lee, 2004). Continuous improvement is a process that is necessary for the implementation of
28
29 TQM philosophy and is possible only by delegating authority to employees (Gatchalian, 1997). It
30
31 is considered a proactive form of employees’ activity and a key element of TQM, which promotes
32
33 employees’ participation in quality improvement programs and ensures higher quality in all areas
34
35 (Lee, 2004). Continuous improvement efforts are necessary for the implementation of TQM and
36
37 problem identification and rectification, which are the prerequisites for continuous improvement.
38
39 This can only be achieved through effective people empowerment (Gatchalian, 1997). Once
40
41 employees perceive higher job autonomy at the workplace, this increases their trust in their leader
42
43 and engagement with their organization, which resultantly transforms into employees’ continuous
44
45 improvement efforts (Marczak, 2014; Anand *et al.*, 2012).
46
47
48
49
50

51
52 Trust plays a pivotal role in employees’ decisions to engage in knowledge exchange
53
54 processes. Technology, infrastructure, and management are insufficient to facilitate the flow of
55
56
57
58
59
60

communication (Levin and Cross, 2004), which is necessary to maximize employees' knowledge, skills, and abilities. Trust relies on personal acquaintances, reputation, and promise fulfillment, which results in better communication flow (Sharkie, 2009). The idea of open communication, based upon trust, is supported by Garvey and Williamson (2002), who claim that open communication facilitates the generation of new ideas and new ways of production. They further argue that trust, respect for people, and a commitment to truthfulness are important predictors of open communication. Trust is a prerequisite for developing high levels of communication, which facilitates knowledge- and skill-sharing (Levin and Cross, 2004). Another study indicates that to achieve knowledge-sharing and a high level of cooperation among employees, it is management's primary responsibility to provide opportunities for employees to interact with each other in order to develop sufficient levels of trust (Carter *et al.*, 2013). This current study argues that trust in a leader, working as an exchange deepener, leads to cooperative behavior among individuals, groups, or organizations. Hence, the following hypothesis is proposed:

H3. Trust in the leader has a positive effect on continuous improvement efforts.

The mediating role of trust

Extant research has confirmed the direct relationship between transformational leadership and followers' outcomes; for example, organizational commitment, organizational citizenship behaviors, organizational identification, and job performance (Lowe *et al.*, 1996; Walumbwa and Hartnell, 2011; Wang and Rode, 2010; Epitropaki and Martin, 2005). Very few studies have examined the impact of leadership on organizational identification (e.g., Epitropaki, 2003; Kark *et al.*, 2003; Epitropaki and Martin, 2005), although a link between leadership processes and followers' psychological belonging to a group has been presented in conceptual studies (e.g., Hogg and van Knippenberg, 2003; Van Knippenberg *et al.*, 2004). Transformational leadership

components are relevant to employees’ psychological well-being and organizational identification (Martin *et al.*, 2005; Kelloway *et al.*, 2012). Transformational leaders are highly concerned about their followers’ higher-order needs and foster a climate of trust, which induces them to look beyond their self-interest for the good of the group or organization (Epitropaki and Martin, 2005).

Employees’ trust in their leader is important because supervisors’ transforming behaviors help in developing trust in the leader, which resultantly transforms into their organizational identification and continuous improvement (Pillai *et al.*, 1999; Schaubroeck *et al.*, 2011). Therefore, it is argued that employees’ trust in their leader works as a psychological mechanism between the supervisor’s transformational leadership behaviors and employee organizational identification and continuous improvement efforts.

SET suggests that transformational leadership should be more strongly related to trust compared with transactional leadership because the former develops through social exchange instead of economic exchange (Holtz and Harold, 2008). Followers’ trust in their leader, working as an exchange deepener, acts as an underlying mechanism between transformational leadership behaviors and outcomes because it has been established in literature that: (a) transformational leadership has a positive relationship with trust in the leader, (b) trust in the leader is positively related with organizational identification and continuous improvement efforts, and (c) transformational leadership has a positive relationship with organizational identification and continuous improvement efforts. Hence, the following hypothesis is proposed according to Baron and Kenny (1986):

H4. Trust in the leader mediates the positive relationship between transformational leadership and organizational identification and continuous improvement efforts.

Insert Figure 1 about here

Research methodology

Sample and data collection

Four hundred survey questionnaires were distributed among the study participants. Of the 400, 100 responses were excluded due to significant missing data. In addition, 18 questionnaires were identified as having pattern responses (e.g. providing the same rating for all items). It is recommended that careless responses such as these can jeopardize the integrity of research findings (Meade and Craig, 2012); as such, these 118 responses were excluded. As a result, the final sample comprised 282 respondents, with a response rate of 70.5%. Prior to the survey distribution, participants were informed of the study's purpose and confidentiality of the data was assured. This study used age, gender, educational level, and tenure with the organization as control variables in order to control their potential confounding effect. English is the official language in all public and private sector organizations in Pakistan; as such, the surveys were distributed in English. Previous studies conducted in the context of Pakistan have also used English as a survey language (e.g., Khan *et al.*, 2015; Raja *et al.*, 2018; Raja *et al.*, 2004; Abbas *et al.*, 2014).

The participants were from eight different private and public organizations in Banking, Higher Education, Telecommunications, or the Health sectors. The respondents were 43.6% females and 56.4% males. Their ages ranged from 20 to 50 years. A total of 32.6% of respondents were with their organization between one and ten years, and the rest (67.4%) were employed for more than ten years. Respondents' qualifications ranged from high school to PhD, and the maximum number of responses came from those with Masters qualifications (80.5%). The survey instruments were distributed personally to the respondents to successfully achieve a high return rate. A total of 78 appropriately filled survey responses were received of the 100 delivered to the Telecommunications sector. Of these, 60 labeled themselves as being in a non-management

position and 18 labeled themselves as being at the management level. Similarly, 80 responses received out of 100 delivered (60 non-management and 20 management positions) were from the Higher Education sector, and 80 out of 100 (65 non-management and 15 management positions) were received from the Banking sector. Lastly, 44 responses out of 100 (35 non-management and 9 management positions) were from the Health sector. The response rates were similar across the Telecom, Higher Education, and Banking sectors; however, the response rate was considerably lower (44%) from the Health sector. One reason for this could be the nature of Health sector jobs in which workers have quite hectic schedules, which might restrain them from partaking in other activities outside their job description. A brief cover letter was attached to the questionnaire in which the authors explained the purpose of the research and assured respondents of their confidentiality. All the participants were volunteers; hence, no reward was offered for completing the questionnaire.

Measurement of variables

In this study, all the variables were measured on a five-point Likert-type scale ranging from 1 = strongly disagree to 5 = strongly agree.

Transformational leadership was measured by using 20 items adapted from the Multifactor Leadership Questionnaire form 5X (Bass and Avolio, 1995). Consistent with previous empirical work (Zhu *et al.*, 2013; Avolio *et al.*, 2004; Carter *et al.*, 2013; Shin and Zhou, 2003), and because our hypotheses did not distinguish between the dimensions of transformational leadership, the five sub-components of transformational leadership (idealized influence, inspirational motivation, intellectual stimulation, idealized behaviors, and individualized consideration) were combined into a single, higher-order factor. Table 1 shows the demographic characteristics of the respondents.

The Cronbach's alpha reliability of these 20 items measuring transformational leadership was 0.81 in this study. *Trust in the leader* was measured by using a four-item scale adapted from Cook and Wall (1980). An example item includes, "I feel quite confident that my manager will always try to treat me fairly." The Cronbach's alpha reliability of the four items was 0.75 for this study.

Organizational identification was measured by using a four-item scale adopted from Cook and Wall (1980) and Mael and Ashforth (1992) cited by Lee (2004). An example item includes, "This Company's growth is directly connected to my own growth and development." The Cronbach's alpha reliability of the four items was 0.78 for this study.

Continuous improvement was measured using a four-item scale adopted from Peccei and Rosenthal (1997). An example item includes, "I voluntarily search for any work-related new information and knowledge which may help improve the quality of work I do." The Cronbach's alpha reliability of the four items was 0.82 for this study.

Insert Table 1 about here

Analysis and results

Measurement models

Confirmatory Factor Analysis was conducted with AMOS 25 to evaluate the psychometric properties of the study variables. The hypothesized four-factor model comprised transformational leadership, trust, organizational identification, and continuous improvement efforts. Model fit was evaluated on the basis of fit indices, including comparative fit index (CFI), goodness of fit index (GFI), normed fit index (NFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR), using the criteria (i.e. CFI > 0.90, GFI > 0.90, NFI > 0.90, RMSEA < 0.08 and SRMR < 0.06) established by Hu and Bentler (1999). The

hypothesized four-factor model provided an excellent fit to the data ($\chi^2 = 2909$, $df = 1015$, $p < 0.001$, CFI= 0.946, GFI= 0.910, NFI= 0.925, RMSEA= 0.075, and SRMR= 0.046). Further, the authors compared the hypothesized four-factor model with two alternative models. In one, the authors combined organizational identification and continuous improvement efforts on a single factor, which yielded a poor fit ($\chi^2 = 4735$, $df = 1425$, $P < 0.001$, CFI= 0.88, GFI= 0.83, NFI= 0.81, RMSEA= 0.088, and SRMR= 0.07). In the second model, transformational leadership and trust were combined in one factor, and organizational identification and continuous improvement efforts were retained on a single factor to make a two-factor model. This model demonstrated a worse fit to the data ($\chi^2 = 5977$, $df = 1633$, $P < 0.001$, CFI= 0.82, GFI= 0.80, NFI= 0.80, RMSEA= 0.15, and SRMR= 0.11). As shown in Table 3, the hypothesized four-factor model yielded a better fit to the data than any other alternative model, thus providing evidence of discriminant validity.

Reliability analyses (see Table 2) demonstrated that the scores of composite reliability (CR) of all the study's constructs were above the minimum acceptable threshold ($CR > 0.70$). All item loadings were significant ($p < 0.05$), and the average variance extracted values of transformational leadership, trust, organizational identification, and continuous improvement efforts were all above 0.50, which provides support to the convergent validity (Gerbing and Anderson, 1988). Therefore, all items were retained (see Table 2 for details).

Insert Table 2 about here

Insert Table 3 about here

Descriptive statistics

The descriptive statistics and correlation matrix of the study variables are presented in Table 4. Results indicate that transformational leadership is significantly positively related to employee

organizational identification and continuous improvement efforts. In addition, results also show that a positive relationship exists between transformational leadership and trust. Hence, correlations among the study variables are in the expected directions (see Table 4 for details).

Insert Table 4 about here

Structural models

The authors compared the fit of the partial-mediation model in which a direct path was created between transformational leadership and the dependent variables (organizational identification and continuous improvement efforts) with a full-mediation model that did not include a direct path from the independent variable (IV; transformational leadership) to the dependent variables (DVs). Results indicated that the partial-mediation model showed a good fit to the data, ($\chi^2/df=5.882$, $p < 0.001$, CFI= 0.97, GFI= 0.96, NFI= 0.95, RMSEA= 0.116, and SRMR= 0.055); however, the full-mediation model yielded an excellent fit to the data, ($\chi^2/df=3.85$, $p < 0.001$, CFI= 0.98, GFI= 0.98, NFI= 0.97, RMSEA= 0.081, and SRMR= 0.045) (see Table 5 for details).

Insert Table 5 about here

Path analysis

In order to test the hypotheses, relationships were modeled and tested using Amos 25. Although the chi-square difference test returned a significant value, the other fit indices indicated that the fit of the structural model was acceptable, with CFI = 0.897, Incremental Fit Index (IFI) = 0.898, and SRMR = 0.056 and RMSEA = 0.088.

Figure 2 demonstrates the direct positive impact of transformational leadership on trust ($\beta=0.45^*$, $P<.01$), which was found to be significant. In addition, trust has a positively significant impact on organizational identification ($\beta=0.59^*$, $P<.01$) and continuous improvement efforts ($\beta=0.78^*$, $P<.01$). Overall, the variance explained ranged from 64% (organizational identification) to 82% (trust).

Insert Figure 2 about here

Mediation analysis

Based on the approach employed by Baron and Kenny (1986) and Vaske and Kobrin (2001), the direct and indirect effects were tested for a mediation effect: (1) the relationship between the IV and dependent variable (DV) is represented by relationship ‘c’ in Table 3; (2) the relationship between IV and mediator variable (MV) is represented by relationship ‘a’ in Table 3; (3) the relationship between the mediator and the DV is represented by relationship ‘b’ in Table 3; and (4) the original relationship between the IV and DV, when the mediator is added is represented by relationship c* in Table 3. If the direct effect between the IV and DV is non-significant, there is full mediation. If all effects remain significant, there is partial mediation.

In line with the recommendation of Shrout and Bolger (2002) and Delcourt *et al.* (2013), once mediation was detected, the results by Sobel tests were confirmed. By applying a non-parametric procedure, the mediating role of trust in the relationships between transformational leadership and employee organizational identification, and between transformational leadership and employee continuous improvement efforts were tested. Results (see Table 3) show that trust partially mediates the relationship between transformational leadership and employee organizational identification, and trust also partially mediates the relationship between

transformational leadership and continuous improvement. Sobel test statistics support all of the mediation results.

Discussion

To be competitive in today's ever-changing business environment, organizations have to go through a continuous transition that needs appropriate leadership. This study confirmed that transformational leadership behaviors motivate employees to exert a higher level of effort for the improvement of every sphere of the organization. This is much in line with previous research findings as we know that transformational leaders exhibit exemplary behaviors and place organizational goals above their personal benefits, which strengthens the emotional bond between the leader and follower and results in higher levels of trust (Zhu *et al.* 2013). More recently, transformational leadership has been shown to be a preferred model adopted by supervisors for the improvement of their employees (Carter *et al.*, 2013; Zhu *et al.*, 2013).

While most studies highlight the effectiveness of transformational leadership (Humphrey, 2012; Carter *et al.*, 2013; Schaubroeck *et al.*, 2011), some have reported that not all employees will respond to this style of leadership positively (Yukl, 1999; Harrison, 1987; Porter and Bigley, 2003). Some evidence suggests that transformational leadership may be ineffective in leaving a positive impact on employees' performance due to a number of contextual and situational factors (Stone *et al.*, 2004; Humphreys, 2005). These studies on transformational leadership also call for future research to provide a good basis to assess facilitating or limiting conditions. Therefore, the purpose of the present study was to expand current research investigating why and when transformational leadership impacts or does not impact performance outcomes, such as organizational identification and continuous improvement efforts. These findings show that trust

mediates the relationship between transformational leadership and organizational identification and continuous improvement efforts. This means that to achieve the continuous improvement required for successful TQM, transformational leaders must also focus on developing trust.

Theoretical implications

Research has established the direct effects of transformational leadership on positive employee work outcomes (Burke *et al.*, 2007; Judge and Piccolo, 2004; Lowe *et al.*, 1996), but, for some previously unexplained reason, not all employees respond to transformational leadership positively (Yukl, 1999; Harrison, 1987; Porter and Bigley, 2003). This study establishes the mediating effect of trust in the leader, which could explain the variation in the results of these studies.

Using the framework of SET (Blau, 1964), this study also contributes to extant employee–organization relationship literature by proposing and testing trust in the leader as an underlying psychological mechanism that can explain the impact of transformational leadership on specific employee work outcomes, including organizational identification and continuous improvement efforts. This positive impact of transformational leadership on organizational identification and employees’ continuous improvement efforts operates through the development of trust as a mediating variable. Consequently, when investigating the impact of transformational leadership on organizational performance variables, researchers should include trust in their study and test for mediating relationships.

Managerial implications

Transformational leaders who realize the importance of trust in the organization will adopt behaviors that are conducive to developing employees' trust in them at the workplace. This is important in a flat organizational structure where a number of managers or employees report to one supervisor and want fairness in procedures that ensure their productivity and competitive internal growth. One way to exhibit these behaviors is to emphasize what a leader has in common with their employees. Another way to achieve employees' trust is to share information, particularly if it is related to employee well-being or their career. When employees feel trusted, they will trust the leader in return. Finally, admitting mistakes and accepting responsibilities pertaining to a challenging role, and its associated failure or success, are other important ways to build trust within the organization.

Secondly, this study illustrates that when employees perceive fairness within the organization, their trust develops in their leader, and they consider the leader to be a true representative of the organization. Such fairness perceptions are associated with the employees' feelings of strong membership to their organizations. Therefore, leaders should be mindful of the notion that their fairness regarding organizational procedures is linked to subordinates' perceptions of the value of organizational membership. That is why leaders are encouraged to ensure that they structure organizational procedures fairly so that employees develop strong loyalty and psychological attachment to their organization (Cho and Treadway, 2011).

Finally, harmonious relationships between supervisors and subordinates can create a higher level of trust between the two parties and develop the perceptions of employees' oneness with the organization, resulting in greater employee efforts.

Limitations and future directions

There are a few limitations associated with this study that create opportunities for future research. First, this study uses data from four service industries operating in Pakistan, which may hamper the generalizability of the study to other countries or industries. A future study employing the context of the manufacturing sector may shed new light on the phenomenon. Second, this study is cross-sectional in nature, which does not satisfy the conditions for establishing causality. While employee perceptions of leadership style may impact their trust in the leader, another longitudinal study might develop different perceptions of the transformational aspects of a leader. Third, the findings of this study may be prone to some cultural biases due to data being collected in Pakistan, which is deemed high on the collectivism scale (Hofstede, 1984). Also, due to the high power distance society in Pakistan, subordinates may provide biased opinions about their supervisor, which may influence the overall findings. Finally, Transparency International considers Pakistan a low-income country that is high on corruption ratings (Index Corruption Perceptions, 2010). It is possible that corruption at organizational and social levels may generate cynicism in employees regarding institutions and their leaders. Future research is needed in a wide range of countries. Likewise, organizational factors such as job security, corporate social responsibility, or perceived organizational support may also be deemed appropriate as mediating and/or moderating factors.

References

- Abbas, M., Raja, U., Darr, W. and Bouckennooghe, D. (2014), "Combined effects of perceived politics and psychological capital on job satisfaction, turnover intentions, and performance", *Journal of Management*, Vol. 40 No. 7, pp. 1813-1830.
- Ali, A.J., Islam, M.A., and Howe, L.P. (2013), "A study of sustainability of continuous improvement in the manufacturing industries in Malaysia: Organizational self-interest as a mediator", *Management of Environmental Quality: An International Journal*, Vol. 24 No. 3, pp. 408-426.
- Al Harbi, J., Alarifi, S., and Mosbah, A. (2019), "Transformational leadership and creativity", *Personnel Review*, Vol. 48 No. 5, pp. 1082-1099.
- Anand, G., Chhajed, D., and Delfin, L. (2012), "Job autonomy, trust in leadership, and continuous improvement: An empirical study in health care", *Organizations Management Research*, Vol. 5 No. 3-4, pp. 70-80.
- Anderson, J.C., Rungtusanatham, M., and Schroeder, R.G. (1994), "A theory of quality management underlying the deming management method", *Academy of Management Review*, Vol. 19, pp. 472-509.
- Ashforth, B.E. and Mael, F. (1989), "Social identity theory and the organization", *Academy of Management Review*, Vol. 14 No. 1, pp. 20-39.
- Avolio, B.J., Zhu, W., Koh, W., and Bhatia, P. (2004), "Transformational leadership and organizational commitment: Mediating role of psychological empowerment and moderating role of structural distance", *Journal of Organizational Behavior*, Vol. 25 No. 8, pp. 951-968.
- Baron, R.M. and Kenny, D.A. (1986), "The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations", *Journal of Personality and Social Psychology*, Vol. 51 No. 6, pp. 1173-1182.
- Bass, B.M. (1985), *Leadership and performance beyond expectations*: Free Press; Collier Macmillan.
- Bass, B.M. (1990), "From transactional to transformational leadership: learning to share the vision", *Organizational Dynamics*, Vol. 18 No. 3, pp. 19-31.
- Bass, B.M. (1997), "Does the transactional–transformational leadership paradigm transcend organizational and national boundaries?", *American Psychologist*, Vol. 52 No. 2, pp. 130-139.
- Bass, B.M. (1998), *Transformational leadership: Industrial, Military, and Educational Empact*, Lawrence Erlbaum Associates, Mahwah, NJ.
- Bass, B.M. (1999), "Two decades of research and development in transformational leadership", *European Journal of Work and Organizational Psychology*, Vol. 8 No. 1, pp. 9-32.
- Bass, B.M. and Riggio, R.E. (2006), *Transformational leadership*: Psychology Press.
- Bass, B. M., and Avolio, B. J. (1995). MLQ Multifactor Leadership Questionnaire, Leader Form, Rater Form, and Scoring. California. Palo Alto, CA: Mind Garden.
- Bennis, W. and Nanus, B. (1985), *Leadership: The Strategies for Taking Charge*, HarperCollins, New York.
- Bessant, J. and Caffyn, S. (1997), "High-involvement innovation through continuous improvement", *International Journal of Technology Management*, Vol. 14 No. 1, pp. 7-28.

- 1
- 2
- 3 Bessant, J., Caffyn, S. & Gallagher, M. (2001), "An evolutionary model of continuous
- 4 improvement behaviour", *Technovation*, Vol.21 No.2, pp.67-77.
- 5 Blau, P.M. (1964), *Exchange and power in social life*. New York: John Wiley.
- 6 Blau, P.M. (1968), "Social exchange", *International encyclopedia of the social sciences*, Vol. 7,
- 7 pp. 452-457.
- 8
- 9 Brewer, A.M. (1996), "Developing commitment between managers and employees", *Journal of*
- 10 *Managerial Psychology*, Vol. 11 No. 4, pp. 24-34.
- 11 Burke, C.S., Sims, D.E., Lazzara, E.H., and Salas, E. (2007), "Trust in leadership: A multi-level
- 12 review and integration", *The Leadership Quarterly*, Vol. 18 No. 6, pp. 606-632.
- 13 Burns, J.M. (1978), *Leadership*, Harper & Row Publishers, New York, NY.
- 14 Castro, C.B., Perinan, M.M.V., and Bueno, J.C.C. (2008), "Transformational leadership and
- 15 followers' attitudes: the mediating role of psychological empowerment", *The International*
- 16 *of Human Resource Management*, Vol. 19 No. 10, pp. 1842-1863.
- 17 Carmeli, A. and Spreitzer, G. M. (2009), "Trust, connectivity, and thriving: Implications for
- 18 innovative behaviors at work", *The Journal of Creative Behavior*, Vol. 43 No. 3, pp. 169-
- 19 191.
- 20
- 21 Carter, M.Z., Armenakis, A.A., Field, H.S., and Mossholder, K.W. (2013), "Transformational
- 22 leadership, relationship quality, and employee performance during continuous incremental
- 23 organizational change", *Journal of Organizational Behavior*, Vol. 34 No. 7, pp. 942-958.
- 24 Chen, Z., Lam, W., and Zhong, J. A. (2012), "Effects of perceptions on LMX and work
- 25 performance: Effects of supervisors' perception of subordinates' emotional intelligence and
- 26 subordinates' perception of trust in the supervisor on LMX and, consequently, performance",
- 27 *Asia Pacific Journal of Management*, Vol. 29 No. 3, pp. 597-616.
- 28
- 29 Chen, S. Y., Wu, W. C., Chang, C. H., Lin, C. T., Kung, J. Y., Weng, H. C., Lin, Y. T., and Lee, S. I.
- 30 (2015), "Organizational justice, trust, and identification and their effects on organizational
- 31 commitment in hospital nursing staff ", *BMC Health Service Research*, Vol. 15, pp. 363-
- 32 379.
- 33
- 34 Cho, J. and Treadway, D.C. (2011), "Organizational identification and perceived organizational
- 35 support as mediators of the procedural justice–citizenship behaviour relationship: A cross-
- 36 cultural constructive replication", *European Journal of Work and Organizational*
- 37 *Psychology*, Vol. 20 No. 5, pp. 631-653.
- 38
- 39 Colquitt, J.A., Scott, B.A., and LePine, J.A. (2007), "Trust, trustworthiness, and trust propensity:
- 40 A meta-analytic test of their unique relationships with risk taking and job performance",
- 41 *Journal of Applied Psychology*, Vol. 92 No. 4, pp. 909-927.
- 42 Conger, J.A., Kanungo, R.N., and Menon, S.T. (2000), "Charismatic leadership and follower
- 43 effects", *Journal of Organizational Behavior*, Vol. 21 No. 7, pp. 747-767.
- 44 Cook, J. and Wall, T. (1980), "New work attitude measures of trust, organisational
- 45 commitment and personal need non-fulfilment", *Journal of Occupational Psychology*, Vol.
- 46 53, pp. 39–52.
- 47
- 48 Coyle-Shapiro and Conway, N. (2004), *The employment relationship through the lens of social*
- 49 *exchange*: Oxford University Press.
- 50 Cox, E. (2012), "Individual and organizational trust in a reciprocal peer coaching context",
- 51 *Mentoring & Tutoring: Partnership in Learning*, Vol. 20 No. 3, pp. 427-443.
- 52 Cropanzano, R.M. and Mitchell, S. (2005), "Social Exchange Theory: An Interdisciplinary
- 53 Review", *Journal of Management*, Vol. 31 No. 6, pp. 874-900.
- 54 Cummings, L. L. and Bromiley, P. (1996), "The organizational trust inventory (OTI) ", *Trust in*
- 55 *organizations: Frontiers of theory and research*, pp. 302, 330.
- 56
- 57
- 58
- 59
- 60

- De Cremer, D. and Van Knippenberg, D. (2002), "How do leaders promote cooperation? The effects of charisma and procedural fairness", *Journal of Applied Psychology*, Vol. 87 No. 5, pp. 858-866.
- Delcourt, C., Gremler, D.D., Allard, C.R., van Riel, and van Birgelen, M. (2013), "Effects of perceived employee emotional competence on customer satisfaction and loyalty: The mediating role of rapport", *Journal of Service Management*, Vol. 24 No. 1, pp. 5-24.
- Deming, W.E. (1986), *Out of the Crisis*, MIT Center for Advanced Engineering Study, Cambridge, MA.
- Dirks, K. T., and Ferrin, D. L. (2002), "Trust in leadership: Meta-analytic findings and implications for research and practice", *Journal of Applied Psychology*, Vol. 92, pp. 909–927.
- Dutton, J.E., Dukerich, J.M., and Harquail, C.V. (1994), "Organizational images and member identification", *Administrative Science Quarterly*, Vol. 39 No. 2, pp. 239-263.
- Emerson, R. M. (1976), "Social exchange theory", *Annual review of sociology*, pp. 335-362.
- Epitropaki, O. (2003), "Transformational leadership, psychological contract breach and organizational identification", In *Academy of Management Proceedings*, edited, M1-M6: Academy of Management.
- Epitropaki, O. and Martin, R. (2005), "The moderating role of individual differences in the relation between transformational/transactional leadership perceptions and organizational identification", *The Leadership Quarterly*, Vol. 16 No. 4, pp. 569-589.
- Fairholm, G.W. (1994), "Leading diverse followers", *Journal of Leadership & Organizational Studies*, Vol. 1 No. 4, pp. 82-93.
- Firth, R. (1967), *Themes in economic anthropology*.
- Garvey, B. and Williamson, B. (2002), *Beyond knowledge management: dialogue, creativity and the corporate curriculum*: Pearson Education.
- Gatchalian, M.M. (1997), "People empowerment: the key to TQM success", *The TQM magazine*, Vol. 9 No. 6, pp. 429-433.
- Gerbing, D.W. and Anderson, J.C. (1988), "An updated paradigm for scale development incorporating unidimensionality and its assessment", *Journal of Marketing Research*, Vol. 25 No. 2, pp. 186-192.
- Gillespie, N.A. and Mann, L. (2004), "Transformational leadership and shared values: the building blocks of trust", *Journal of Managerial Psychology*, Vol. 19 No. 6, pp. 588-607.
- Gouldner, A.W. (1960), "The norm of reciprocity: A preliminary statement", *American Sociological Review*, Vol. 25 No. 2, pp. 161-178.
- Harrison, R. (1987), "Harnessing personal energy: How companies can inspire employees", *Organizational Dynamics*, Vol. 16 No. 1, pp. 5-20.
- Hofstede, G. (1984), "Cultural dimensions in management and planning", *Asia Pacific Journal of Management*, Vol. 1 No. 2, pp. 81-99.
- Hogg, M.A. and van Knippenberg, D. (2003), "Social identity and leadership processes in groups", *Advances in Experimental Social Psychology*, Vol. 35, pp. 1-52.
- Holtz, B.C. and Harold, C.M. (2008), "When your boss says no! The effects of leadership style and trust on employee reactions to managerial explanations", *Journal of Occupational and Organizational Psychology*, Vol. 81 No. 4, pp. 777-802.
- Hu, L.T. and Bentler, P. M. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives", *Structural Equation Modeling*, Vol 6 No. 1, pp. 1–55.

- Huang, J. T. (2012), "Be proactive as empowered? The role of trust in one's supervisor in psychological empowerment, feedback seeking, and job performance", *Journal of Applied Social Psychology*, Vol. 42 No. 1, pp. 103-127.
- Humphrey, A. (2012), "Transformational leadership and organizational citizenship behaviors: The role of organizational identification", *The Psychologist-Manager Journal*, Vol. 15 No. 4, pp. 247-268.
- Humphreys, J. H. (2005), "Contextual implications for transformational and servant leadership: A historical investigation", *Management Decision*, Vol. 43 No. 10, pp. 1410-1431.
- Index, Corruption Perceptions. (2010), Transparency international. URL: http://www.transparency.org/news/feature/cpi_2013_now_is_the_time_for_action.
- Islam, T., Tariq, J., and Usman, B. (2018), "Transformational leadership and four-dimensional commitment: Mediating role of job characteristics and moderating role of participative and directive leadership styles", *Journal of Management Development*, Vol. 37 No. 9/10, pp. 666-683.
- Judge, T.A. and Piccolo, R. F. (2004), "Transformational and transactional leadership: a meta-analytic test of their relative validity", *Journal of Applied Psychology*, Vol. 89 No. 5, pp. 755-768.
- Jung, D.I. and Avolio, B.J. (2000), "Opening the black box: An experimental investigation of the mediating effects of trust and value congruence on transformational and transactional leadership", *Journal of Organizational Behavior*, Vol. 21 No. 8, pp. 949-964.
- Kacmar, K. M., Bachrach, D. G., Harris, K. J., and Noble, D. (2012), "Exploring the role of supervisor trust in the associations between multiple sources of relationship conflict and organizational citizenship behavior", *The Leadership Quarterly*, Vol. 23 No. 1, pp. 43-54.
- Kark, R., Shamir, B., and Chen, G. (2003), "The two faces of transformational leadership: empowerment and dependency", *Journal of Applied Psychology*, Vol. 88 No. 2, pp. 246-255.
- Kelloway, E.K., Turner, N. Barling, J., and Loughlin, C. (2012), "Transformational leadership and employee psychological well-being: The mediating role of employee trust in leadership", *Work & Stress*, Vol. 26 No. 1, pp. 39-55.
- Keskes, I. (2014), "Relationship between leadership styles and dimensions of employee organizational commitment: A critical review and discussion of future future directions", *Intangible Capital*, Vol. 10 No. 1, pp. 26-51.
- Khan, K., Abbas, M., Gul, A. and Raja, U. (2015), "Organizational Justice and Job Outcomes: Moderating Role of Islamic Work Ethic", *Journal of Business Ethics*, Vol. 126 No. 2, pp. 235-246.
- Kirkman, B., Chen, G., Farh, J. L., Chen, Z. X., and Lowe, K. B. (2009), "Individual power distance orientation and follower reactions to transformational leaders: A cross-level, cross-cultural examination", *Academy of Management Journal*, Vol. 52, pp. 744-764.
- Lavelle, J. J., Rupp, D. E., and Brockner, J. (2007), "Taking a multifoci approach to the study of justice, social exchange, and citizenship behavior: The target similarity model", *Journal of Management*, Vol. 33, pp. 841-866.
- Lee, H. J. (2004), "The role of competence-based trust and organizational identification in continuous improvement", *Journal of Managerial Psychology*, Vol. 19 No. 6, pp. 623-639.
- Levin, D. Z. and Cross, R. (2004), "The Strength of Weak Ties You Can Trust: The Mediating Role of Trust in Effective Knowledge Transfer", *Management Science*, Vol. 50 No. 11, pp. 1477-1490.

- 1
2
3 Levinson, H. (1965), "Reciprocation: The relationship between man and organization",
4 *Administrative Science Quarterly*, Vol. 9 No. 4, pp. 370-390.
- 5 Lin, C.S., Huang, P.C., Chen, S.J., and Huang, L.C. (2017), "Pseudo-transformational Leadership
6 is in the Eyes of the Subordinates", *Journal of Business Ethics*, Vol. 141 No. 1, pp. 179-
7 190.
- 8
9 Li, A. N., and Tan, H. H. (2013), "What happens when you trust your supervisor? Mediators of
10 individual performance in trust relationships", *Journal of Organizational Behavior*, Vol. 34
11 No. 3, pp. 407-425.
- 12 Lord, R.G. and Brown, D.J. (2001), "Leadership, values, and subordinates self-concepts", *The*
13 *Leadership Quarterly*, Vol. 12 No. 2, pp. 133-152.
- 14 Lowe, K.B., Kroeck, K.G., and Sivasubramaniam, N. (1996), "Effectiveness correlates of
15 transformational and transactional leadership: A meta-analytic review of the MLQ
16 literature", *The Leadership Quarterly*, Vol. 7 No. 3, pp. 385-425.
- 17
18 Madjar, N., and Ortiz-Walters, R. (2009), "Trust in supervisors and trust in customers: Their
19 independent, relative, and joint effects on employee performance and creativity", *Human*
20 *Performance*, Vol. 22 No. 2, pp. 128-142.
- 21 Mahmood, M., Uddin, M.A., and Fan, L. (2019) "The influence of transformational leadership on
22 employees' creative process engagement: A multi-level analysis", *Management Decision*,
23 Vol. 57 No. 3, pp.741-764.
- 24
25 Martin, R., Thomas, G., Charles, K., Epitropaki, O., and McNamara, R. (2005), "The role of
26 leader-member exchanges in mediating the relationship between locus of control and work
27 reactions", *Journal of Occupational and Organizational Psychology*, Vol. 78 No. 1, pp.
28 141-147.
- 29
30 Mael, F. and Ashforth, B. E. (1992), "Alumni and their alma mater: A partial test of the
31 reformulated model of organizational identification", *Journal of Organizational Behavior*,
32 Vol. 13 No. 2, pp. 103-123.
- 33 Marczak, R. B. (2014), "Employee engagement in continuous improvement of processes",
34 *Management*, Vol. 18 No. 2, pp. 88-103.
- 35 Mayer, R.C., Davis, J.H., and Schoorman, F.D. (1995), "An integration model of organizational
36 trust", *Academy of Management Review*, Vol. 20 No. 3, pp. 709-734.
- 37
38 McAllister, D.J. and Bigley, G.A. (2002), "Work Context and the Definition of Self: How
39 Organizational Care Influences Organization-Based Self-Esteem", *Academy of*
40 *Management Journal*, Vol. 45, pp. 894-904.
- 41 Meade, A.W. and Craig, S.B. (2012), "Identifying careless responses in survey data",
42 *Psychological Methods*, Vol. 17 No. 3, pp. 437-455.
- 43
44 Mitchell, M.S. and Ambrose, M.L. (2007), "Abusive supervision and workplace deviance and the
45 moderating effects of negative reciprocity beliefs", *Journal of Applied Psychology*, Vol.
46 92 No. 4, pp. 1159-1168.
- 47
48 Pawar, B.S. and Eastman, K.K. (1997), "The nature and implications of contextual influences on
49 transformational leadership: A conceptual examination", *Academy of Management Review*,
50 Vol. 22 No. 1, pp. 80-109.
- 51
52 Peccei, R. and Rosenthal, P. (1997), "The antecedents of employee commitment to customer
53 service: evidence from a UK service context", *The International Journal of Human*
54 *Resource Management*, Vol. 8, pp. 66-85.
- 55
56 Pillai, R., Schriesheim, C.A., and Williams, E.S. (1999), "Fairness perceptions and trust as
57 mediators for transformational and transactional leadership: A two-sample study", *Journal*
58 *of Management*, Vol. 25 No. 6, pp. 897-933.
- 59
60

- Porter, L.W. and Bigley, G.A. (2003), Motivation and transformational leadership: Some organizational context issues. *Lyman W. Porter, Harold L. Angle, and Robert W. Allen (Eds.), Organizational Influences Processes*. Armonk, NY: ME Sharpe: 263-74.
- Raja, U., Javed, Y., and Abbas, M. (2018), "A time lagged study of burnout as a mediator in the relationship between workplace bullying and work-family conflict", *International Journal of Stress Management*, Vol. 25 No. 4, pp. 377-390.
- Raja, U., Johns, G., and Ntalianis, F. (2004), "The impact of personality on psychological contracts", *Academy of Management Journal*, Vol. 47 No. 3, pp. 350-367.
- Riketta, M. (2005), "Organizational identification: A meta-analysis", *Journal of Vocational Behaviors*, Vol. 66 No. 2, pp. 358-384.
- Rousseau, D.M., Sitkin, S.B., Burt, R.S., and Camerer, C. (1998), "Not so different after all: A cross-discipline view of trust", *Academy of Management Review*, Vol. 23 No. 3, pp. 393-404.
- Sashkin, M. and Fulmer, R.M. (1988), Toward an organizational leadership theory. In J.G. Hunt, B.R. Baliga, H.P. Dachler, & C.A. Schriesheim (Eds.), *Emerging leadership vistas* (pp. 51-65). Lexington, MA: Heath
- Schaubroeck, J., Lam, S.S., and Peng, A.C. (2011), "Cognition-based and affect-based trust as mediators of leader behavior influences on team performance", *Journal of Applied Psychology*, Vol. 96 No. 4, pp. 863-871.
- Seppälä, T., Lipponen, J., Pirttilä-Backman, A.-M., and Lipsanen, J. (2011), "Reciprocity of trust in the supervisor-subordinate relationship: The mediating role of autonomy and the sense of power", *European Journal of Work and Organizational Psychology*, Vol. 20 No. 6, pp. 755-778.
- Sharkie, R. (2009), "Trust in leadership is vital for employee performance", *Management Research News*, Vol. 32 No. 5, pp. 491-498.
- Shin, S.J. and Zhou, J. (2003), "Transformational leadership, conservation, and creativity: Evidence from Korea", *Academy of Management Journal*, Vol. 46 No. 6, pp. 703-714.
- Shore, L.M., Tetrick, L.E., Taylor, M. S., Coyle-Shapiro, J., Liden, R.C., McLean-Parks, J. (2004), The employee-organization relationship: A timely concept in a period of transition. In J. J. Martocchio (Ed.), *Research in personnel and human resources management*, Vol. 23: 291-370. Amsterdam: Elsevier.
- Stone, A. G., Russell, R. F., and Patterson, K. (2004), "Transformational versus servant leadership: a difference in leader focus", *Leadership & Organization Development Journal*, Vol. 25, pp. 349-361.
- Shrout, P.E. and Bolger, N. (2002), "Mediation in experimental and nonexperimental studies: new procedures and recommendations", *Psychological Methods*, Vol. 7 No. 4, pp. 422-445.
- Tajfel, H. and Turner, J.C. (2004), The Social Identity Theory of Intergroup Behavior.
- Tyler, T.R. and Blader, S. (2000), *Cooperation in groups: Procedural justice, social identity, and behavioral engagement*. Psychology Press.
- Van Knippenberg, D., Van Knippenberg, B., De Cremer, D., and Hogg, M.A. (2004), "Leadership, self, and identity: A review and research agenda", *The Leadership Quarterly*, Vol. 15 No 6, pp. 825-856.
- Vaske, J.J. and Kobrin, K.C. (2001), "Place attachment and environmentally responsible behavior", *The Journal of Environmental Education*, Vol. 32 No. 4, pp. 16-21.
- Walumbwa, F.O. and Hartnell, C.A. (2011), "Understanding transformational leadership-employee performance links: The role of relational identification and self-efficacy", *Journal of Occupational and Organizational Psychology*, Vol. 84 No. 1, pp. 153-172.

- 1
2
3 Wang, P. and Rode, J.C. (2010), "Transformational leadership and follower creativity: The
4 moderating effects of identification with leader and organizational climate", *Human*
5 *Relations*, Vol. 63 No. 8, pp. 1105-1128.
6
7 Yukl, G. (1999), "An evaluation of conceptual weaknesses in transformational and charismatic
8 leadership theories", *The Leadership Quarterly*, Vol. 10 No. 2, pp. 285-305.
9 Yu, M., Mai, Q., Tsai, S., and Dai, Y. (2018), " An Empirical Study on the Organizational Trust,
10 Employee-Organization Relationship and Innovative Behavior from the Integrated
11 Perspective of Social Exchange and Organizational Sustainability", *Sustainability*, Vol. 10
12 No. 3, pp. 864-877.
13
14 Zhu, W., Newman, A., Miao, Q., and Hooke, A. (2013), "Revisiting the mediating role of trust in
15 transformational leadership effects: Do different types of trust make a difference?", *The*
16 *Leadership Quarterly*, Vol. 24 No. 1, pp. 94-105.
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Tables

Table 1. *Demographic characteristics of the respondents*

Demographic	Number of people (frequency)	% of total n
Gender		
Male	159	56.4
Female	123	43.6
Age		
20-35	5	1.8
25-30	46	16.5
31-35	68	24.1
36-40	73	25.6
41-45	82	29.1
46-50	8	2.9
Above 60	0	0
Education		
SSC	0	0
HSSC	6	2.1
BA/BSc	42	14.9
Master	227	80.5
MS/MPhil	4	1.4
PhD	3	1.1
Experience in years		
1-5	12	4.3
6-10	80	28.3
11-15	84	29.8
Above 15 years	106	37.6
Industry		
Telecom	78	27.7
Higher education	80	28.4
Banking	80	28.4
Health	44	15.6
Note: n=282		

Table 2. *Confirmatory factor analysis results*

Factors	Standardized loading	t-value	Cronbach's alpha	CR	AVE
Transformational Leadership			0.810	0.796	0.568
TL1	0.820	-			
TL2	0.785	6.451			
TL3	0.802	5.835			
TL4	0.801	4.989			
TL5	0.824	6.503			
TL6	0.782	5.286			
TL7	0.816	6.023			
TL8	0.832	6.125			
TL9	0.775	5.439			
TL10	0.787	5.193			
TL11	0.768	5.012			
TL12	0.854	6.132			
TL13	0.846	5.935			
TL14	0.840	5.912			
TL15	0.736	4.851			
TL16	0.766	4.985			
TL17	0.825	6.012			
TL18	0.812	5.989			
TL19	0.719	4.785			
TL20	0.781	5.456			
Trust			0.756	0.705	0.562
TR1	0.722	-			
TR2	0.703	4.865			
TR3	0.767	5.213			
TR4	0.792	5.365			
Organizational identification			0.788	0.754	0.602
OI1	0.805	-			
OI2	0.775	5.345			
OI3	0.752	5.132			
OI4	0.705	4.765			
Continuous improvement efforts			0.821	0.789	0.585
CIE1	0.821	-			
CIE2	0.801	6.254			
CIE3	0.784	5.895			
CIE4	0.795	5.964			

Notes: CR= composite reliability; AVE= average variance extracted.

Table 3. *Results of CFAs, comparison of measurement models.*

Model	χ^2	df	CFI	GFI	NFI	RMSEA	SRMR
Four-factor model	2909	1015	0.946	0.910	0.925	0.075	0.046
Three-factor model	4735	1425	0.88	0.83	0.81	0.088	0.070
Two-factor model	5977	1633	0.82	0.80	0.80	0.15	0.11

Table 4. *Means, Standard Deviations and correlations among the study variables*

No	Constructs	Mean	SD	CR	AVE	1	2	3
1	Transformational leadership	3.21	.72	0.825	0.528			
2	Trust in supervisor	3.19	.69	0.841	0.642	0.601 **		
3	Organization identification	3.25	1.15	0.842	0.845	0.667 **	0.501**	
4	Continuous improvement	3.28	1.19	0.929	0.814	0.747 **	0.614**	0.580**

Note: n=282. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5. *Mediated role of trust between transformational leadership and organization identification and continuous improvement.*

Hypotheses	Dependent variable (DV)	a TL→TRUST	b TRUST→DV	c TL→DV	c* TL→DV (Mediator Controlled)	Sobel's Z-value	Type of Mediation
TRUST mediates the relationship between TL and ORGID	ORGID	.596**	.497**	.663**	.568**	2.915 **	Partial
TRUST mediates the relationship between TL and CI	CI	.596**	.60**	.743**	.591**	4.515**	Partial

N=282, * $p < .05$, ** $p < .01$, Two tailed tests, * $p < .05$, ** $p < .01$, where; TL = Transformational Leadership, ORGID= Organizational Identification, CI= Continuous Improvement and Trust for Interpersonal Trust.

Figures

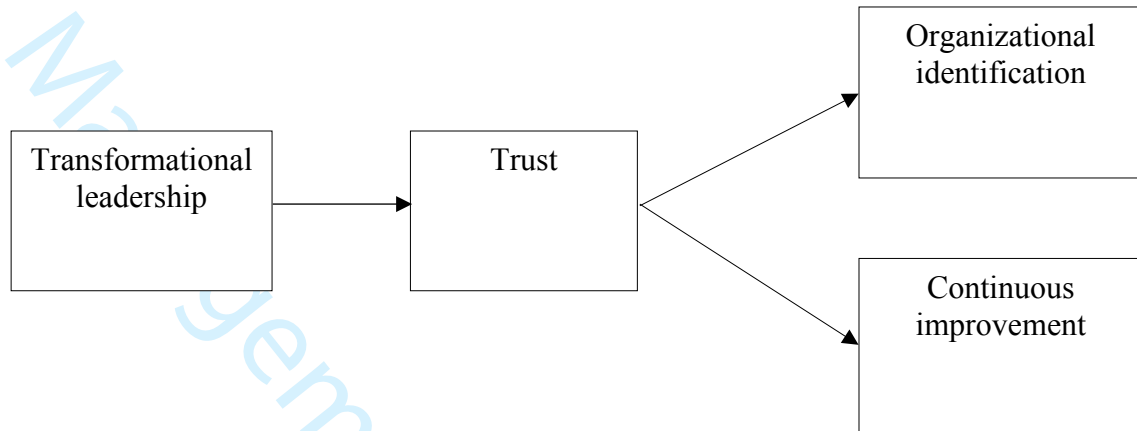


Figure 1- theoretical model

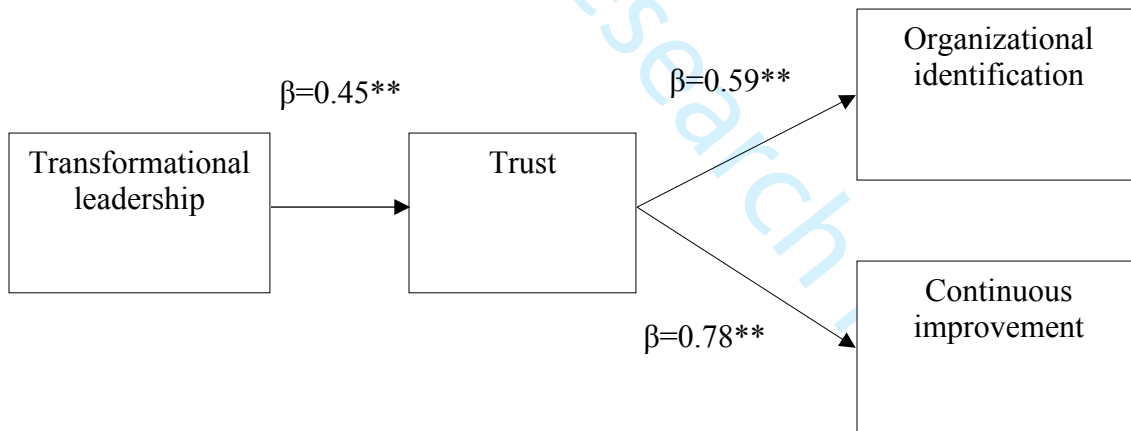


Figure 2- Path analysis