

## Transformational Leadership for Employee Work Engagement: A Sequential Mediation Approach

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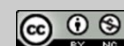
### Abstract

*Transformational leadership is known for its elite features in terms of management, support, motivational inspiration, and guidance. It is a key feature in turbulent environmental factors that can sustain the element of positive organizational outcomes in employees. Using this idea, the study designed its conceptual framework of the relationship between transformational leadership and employees' work engagement with the serial mediation of trustworthiness and trust in leaders. This research was a quantitative study that used a survey design. The survey tool was developed in a traditional layout and distributed to service sector employees using a purposive sampling approach. After gathering the responses, the data sample was analyzed using the PLS-SEM approach. To the satisfaction of the analysis results, all framed associations were supported, leading to the confirmation of all designed hypotheses. Transformational leadership had a significant direct and indirect impact on employees' work engagement, with trustworthiness and trust in leaders mediating these effects. Using these results, the study made significant contributions by providing a clear picture of the leader-member exchange relationship of transformational leaders, as reflected in positive behavioral outcomes among employees, such as work engagement, which is one of the most influential keys to organizational growth and success.*

**Keywords:** Transformational leadership, Social Exchange theory, Trustworthiness, Trust in leaders, Employees, Leaders, Cognitive-emotional-behavioral pathway.

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# 1. Introduction

## 1.1. Background of the Study

Leadership is a concept that remains evergreen, always at the forefront of literature, and transformational leadership is also enjoying an emerging role. Characterized by inspirational motivation, individualized consideration, idealized influence, and intellectual stimulation, transformational leadership is emerging as the most appropriate form of leadership in globalized markets (Ghasabeh et al., 2015). With such exclusive characteristics, leaders develop passion, commitment, and loyalty in the staff members, mobilize the organizational structure for fundamental changes, and gain the necessary capabilities to reach higher performance peaks (Korejan & Shahbazi, 2016). A systematic review has argued that, irrespective of immersive empirical records in transformational leadership, there is a remarkable oversight in the literature of transformational leadership because this concept has evolved from its nascent phenomena to a mature paradigm (Siangchokyoo et al., 2020). The major turbulent factors behind this evolution are the dynamic market and economic conditions, like the industrial revolution, as Industry 4.0 (Hutagalung et al., 2020), the most disturbing phase of COVID-19 (Antonopoulou et al., 2021) and technological advancements (Usman, 2020). Considering all these most significant dynamics, the organizational setting still emphasizes transformational leadership as an effective model to drive organizational change and lead to healthy employee contributions for organizational performance (Lewa et al., 2022). Trust in leaders is dependent on trustworthiness, where cognitive mechanisms of trustworthiness link with the emotional state of trust and ultimately enhance employees' behaviors (Caldwell & Jeffries, 2001). Even organizational success is highly dependent on employees' trust because if an employee trusts his or her leader due to certain positive leadership traits, he or she will be willing to take certain risks following the leader's actions or commands (Islam et al., 2021). Particularly, transformational leadership has the most influential power to ignite the level of trust in the subordinates and develop an overall aura of work commitment (Mansor et al., 2021). Including positive work commitment, employees who have the opportunity to enjoy transformational leadership with transparent communication are most likely to show a resilient nature with high trust and openness to change (Islam et al., 2021). Employees in a harmonious work environment with regular constructive instructions from the motivational leaders show a high likelihood of immersion in their assigned tasks with a passion to do more for their organizations, thus showing high work engagement (Islam et al., 2024).

Employee work engagement is one of the most important work-related behaviors that is a promising feature for organizational changes and performance sustainability (Shettigar & Shiva Shankar, 2020). Employee work engagement is predictive of different organizational and managerial factors, such as

leadership support, learning culture, and efficient working environments (Abdelwahed & Doghan, 2023). Organizations that pay significant attention to employees' psychological and emotional needs successfully assist the employees to be more productive, committed to their jobs, and dedicated, thus resulting in higher employee work engagement (Yadav et al., 2022).

## **1.2. Problem Statement**

Sustaining organizational behaviors that align with the dynamic contemporary trends is essential for organizational success, and employees look for support and leadership facets to perform their best in their assigned tasks (Naveed et al., 2022). Employees are the most crucial in an organizational setting, and their positive emotions signal green business performance; therefore, a healthy relationship between employees and leadership is imperative, particularly at the operational level (Li et al., 2022). This intricate interplay between employees and managers requires a supportive transformational leadership style to foster healthy emotions of trust and trustworthiness (Cao & Le, 2024). These positive emotions have vital importance for business as they generate constructive behavioral outcomes in employees, in which dedication and engagement with work are of utmost importance (Park et al., 2022). One point of high importance here is that leadership is the mainstream of all activities performed by the employees. According to scholars, managers have two core responsibilities of consideration and structural concentration. First responsibility is all about communication between managers and subordinates, which is established through trust, understanding, mutual respect, and understanding of followers' needs. Simultaneously, the second responsibility is about strategic planning, role description, scheduling, task assigning; collectively, all those structural duties related to managing the organizational processes (Dier & Tawfeq, 2021; Schriesheim & Bird, 1979). Recent studies have given privilege to transformational leadership as the most effective leadership trait that is the most effective behavioral attitude for every manager to gain positive inputs from their followers for organizational effective growth (Siangchokyoo et al., 2020). It is considered a beginning spark that works simultaneously for employees' organizational commitment and work engagement (Park et al., 2022). Acknowledging this enriching empirical insight, this study designed its first objective to investigate the role of transformational leadership on employees' work engagement within the context of Pakistan. Trustworthiness has been observed as a significant and primary step in the cognitive-emotional theory that is essential for positive work outcomes. Following the cognitive-emotional-behavioral pathway, one recent study disclosed that employees who receive effective transformational leadership are a significant predictor of trustworthiness by reflecting inspiration, motivation, and acknowledgement, which develop the cognitive trait of trustworthiness, which increases the emotional state of trust (Chimakati, 2024).

### 1.3. Research Objectives

Based on the above-identified problem and the significance of the explored concepts, this research will investigate the value of transformational leadership in strengthening trust and employees' behavioral outcomes, such as motivation and organizational citizenship. Under this aim, the following research objectives have been established. This study acknowledges that transformational leadership plays a critical role in shaping positive employee behavior and attitude that results in organizational success. It aims to explore how leaders' inspirational, intellectual, and individualized approaches can enhance motivation and engage them in their work. The research also seeks to understand the psychological processes that provide a strong base for transformational leadership to build trust and commitment among employees. Furthermore, it shows how trust in leaders really builds up that connection between what motivates people and their readiness to take on extra tasks outside their regular duties. When you look at these connections more closely, the research aims to help us better understand how effective leadership works in today's companies. On top of that, it looks to back up specific training approaches for leaders with real data, ones that push for moral choices and ways to empower teams. The research explains why companies should cultivate leadership habits that support both personal development and group progress. In the end, the study's results should help leaders and decision-makers develop plans that keep employees involved, committed, and doing their best. The objectives of the research are:

- To investigate the impact of transformational leadership on trustworthiness, trust in leaders, and employee work engagement.
- To elucidate the mediating role of trustworthiness between transformational leadership and employee work engagement.
- To delve into the mediating role of trust in leaders between transformational leadership and employee work engagement.
- To examine the sequential mediation of trustworthiness and trust in leaders in the relationship between transformational leadership and employee work engagement.

### 1.4. Research Questions

To fulfill the prescribed objectives, specific research questions have been developed to be answered during this research journey. The questions are:

RQ1: Does transformational leadership have a significant influence on trustworthiness, trust in leaders, and employees' work engagement?

RQ2: Does trustworthiness play a significant mediating role between transformational leadership and employees' work engagement?

RQ3: Does trust in leaders serve a catalytic function to increase the effect of transformational leadership on employees' work engagement?

RQ4: Does trustworthiness and trust in the leaders have a sequential mediating effect between transformational leadership and employees' work engagement?

These research questions aim to explore the relationships among transformational leadership, trustworthiness, trust in leaders, and work engagement, and to enable leaders to build a positive and productive environment for employees.

### **1.5. Justification and Rationale**

Leader-member exchange (LMX) is an undeniable phenomenon in every organization, and the literature has been debating this relationship for decades (Ngodo, 2008). In this domain, it is argued that positive leadership styles, such as transformational leadership, have a motivational and elevating effect on employees. Such positive leadership effects comprise positive psychological inputs of passion, skill development, and confidence, which create outputs of trust, well-being, commitment to work, and other positive work-related outcomes (Liu et al., 2010). Some scholars have explained the types of trust in terms of leadership styles, arguing that, regardless of positive transformational leadership traits, some employees will perceive leaders' behaviors as genuine effort (affective trust) and will exhibit positive, committed work behavior. But some employees will think that their managers are trying to enhance their work confidence by motivating, inspiring, and intellectually stimulating, thus increasing their cognitive trust, as well as their job performance, citizenship behaviors, and commitment (Zhu et al., 2013). In contrast, some contradictory outcomes were disclosed that affective and cognitive trust work differently with transformational leadership. Scholars shared that trust collectively plays a positive mediating role between transformational leadership and organizational commitment and employee turnover intentions but serves a negative function for task performance. In such circumstances, scholarly insight quotes that leaders who are willing to immolate individual merit of a team keep a uniformity in their spoken words, actions, improve individual skills, and particularly target the element of trustworthiness in employees that is essential to increase the trust levels and work outcomes of employees (Fareed et al., 2022; Kirkpatrick & Locke, 1996). To further explore this mechanism, transformational leadership play a vital role in shaping the overall psychological environment in the organization for better performance of employees, starting from transformational leadership and leading to work-related outcomes, (Lee et al., 2024) explored a serial mediation model by focusing on organizational citizenship behavior and further suggested testing the robustness of their tested model for different work outcomes like work engagement or commitment. They promote innovation and open communication and create a culture of mutual respect, eventually fortifying the leader-member relationship. When employees experience fairness, empathy, and empowerment, their

trust and emotional bond with the leader increase, which in turn impacts their engagement, job satisfaction, and retention intentions.

### **1.6. Significance and Scope**

This study will cover a multidimensional concept of social action, emotional and cognitive factors, and their roles in increasing positive work outcomes. As employees experience fairness, empathy, and empowerment, their trust and emotional attachment with the leader deepen, positively influencing their engagement, job satisfaction, and retention intentions. Therefore, the quality of the leader-member exchange becomes the pillar of organizational effectiveness. The leading player of the proposed idea is trust, which can be perceived as a social and emotional act that focuses on the leader-employee relationship (Aslam et al., 2024). Thus, focusing on this deliberate link of trust, this study will elaborate on the full phenomenon of how transformative traits in leaders motivate or inspire employees by triggering their cognitive trait of trustworthiness, thereby fostering a healthy mental perception of trust in their leaders. With the designed aims and objectives, this study will illuminate an innovative strategy for the managers on how they can fulfill organizational objectives by developing a supervisory aura of support, motivation and trustworthiness. This study will highlight the importance of the cognitive-emotional-behavioral pathway and help managers and leaders understand employees' psychological and cognitive needs to maximize positive behavioral attitudes at work, such as work engagement. Using the social exchange theory perspective, this study will show a sharp distinction between trust in leaders and trustworthiness and will carve a path for managers to acknowledge employees' emotional and cognitive needs to achieve organizational objectives. In short, this study aims to explain the crucial role of the leader-member exchange relationship in sustaining the flow of inputs for organizational growth, profitability, and success. Thus, this study will provide valuable practical insights for professionals as well.

### **1.7. Layout and Structuring**

This dissertation has been divided into five main sections, including some additional sections. This chapter provides a background introduction to the key constructs in the selected contextual setting, the problem statement, research aims, objectives, and questions, the significance, scope, and justification of the proposed idea. The literature review of the study is provided in the second chapter. This chapter provides a comprehensive review of the conceptual and empirical literature, with a theoretical background for the development of the conceptual framework. The detailed discussion of the research methodology, including the research design, data collection procedures and tools, data analysis, and ethical considerations, is presented in the third chapter. The fourth chapter provides an interpretation of the statistical analysis techniques applied to test the designed hypotheses and answer the research questions. Chapter 5 extracts the essence of the research findings and their empirical meaning, provides

a summary of the research, and outlines the theoretical and practical implications, limitations, and future suggestions. Additional sections include a complete bibliography of the cited sources and appendices with the necessary further details.

## **2. Literature Review**

### **2.1. Theoretical Support of Social Exchange Theory SET**

Leader-member exchange relationships are an evergreen concept across organizational settings. In this myriad, the Social Exchange theory is considered the most influential conceptual idea to understand workplace behaviors, and its traces can be tracked since the late 1920s in different disciplines (Malinowski, 2013). As the theory's name suggests, it includes many interactions that most likely generate obligations. These interactions are considered as the interdependent and contingent actions of another person. (Blau, 2017). Extending these interactions, SET emphasizes that such interdependent and contingent actions have a significant potential to produce high-quality relations (Blau, 2017). .

SET is an enriched concept that several studies have empirically tested to understand organizational citizenship behaviors (Elstad et al., 2011), psychological factors, and support (Anggraeni, 2018), knowledge sharing (Wu et al., 2006), online communication (Ren & Ma, 2021), service quality (Wang et al., 2020) and leadership (Raziq et al., 2025). Such diverse applications justify the robustness and strong predictive power of SET in explaining leader-follower relationships. Using the SET, scholars suggested that transformational leadership is a positive organizational effort that ignites individual initiative to generate new ideas for innovation and to identify diverse opportunities to survive in turbulent or challenging circumstances. (Zhang et al., 2018).

### **2.2. Conceptual Literature Review**

This section will thoroughly illustrate the basic concepts, nature, determinants, and antecedents of the key constructs. With this, the basic sense of action of the key variables will be clarified, which will serve as a conceptual justification for developing hypotheses for investigation.

#### *2.2.1. Transformational Leadership*

The concepts of transformational and transactional leadership styles were introduced by (Burns, 1978; Burns, 2004). Transformational leadership builds and uplifts followers' morale and motivation; it encourages them to reflect on what they can do and what needs to be done for the organization. An old scholar (Bass, 1999, p. 11) has covered the whole phenomenon of transformational words in remarkable words by saying that it is a proficient quality of a leader that is moving all his or her followers beyond immediate self-interests by feeding the thoughts of inspiration, idealized influence (often called charisma), and intellectual stimulation. With such leadership qualities, a leader elevates

the level of maturity, fostering in followers concerns for self-achievement and self-actualization in the service of the wellbeing of others, society, and the organization (Bass, 1999, p. 11). Transformational leadership is the opposite of transactional leadership, focuses on the higher-order intrinsic or intangible needs of followers, and raises consciousness of specific outcomes related to significant tasks (Barnett et al., 2001; Cox, 2001; Gellis, 2001).

### *2.2.2. Trustworthiness*

According to Nancy Potter's (Potter, 2002) Trustworthiness is a virtue; a trustworthy person is a person who can be counted on for things that others entrust to him one he or she can take care of. Others have narrated that trustworthiness is the willingness of B to act favorably towards A, when A has placed an implicit or explicit demand for action on B (Ben-Ner & Halldorsson, 2010). Trustworthiness has been divided into different categories, i.e., credibility (which corresponds with the positive concept of internal validity), dependability (a concept related to reliability), transferability (a form of external validity), and confirmability (an issue of presentation) (Graneheim & Lundman, 2004; Rolfe, 2006). These dimensions illustrate that trustworthiness is a blend of different emotional perspectives person A feels from person B, and it's a virtual feeling that makes people trust others. Trust and trustworthiness are two closely related concepts that have been extensively studied across disciplines such as psychology, sociology, economics, management sciences, and anthropology.

### *2.2.3. Trust in Leaders*

Trust and trustworthiness are the basis for various social and economic interactions and underpin many prosocial and moral behaviors, such as fairness, honesty, and cooperation (Kumar et al., 2020). The old-school view in the first decade of the 21<sup>st</sup> century defined trust as the willingness to be vulnerable to the trustee (Colquitt & Rodell, 2011). Others described trust as an attitude of relying on someone with confidence. It's a process, time, and reliance on others that increase the risk, vulnerability, and dependency on the trustor (Dinç & Gastmans, 2012). To understand the concept of trust, there are two parties: 1) the trustee (a person who is being trusted, e.g., managers or leaders) and 2) the trustor (a person who is focusing on the action of trust, e.g., employees, followers, or subordinates) (Carter, 2023). "Trust is to behave voluntarily in a way to accept vulnerability due to certain behavior of another (the trustee), based upon the expectation of a positive outcome" (Özer & Zheng, 2019, p. 5). In an organizational setting, trust in leaders is a key factor in evaluating leadership effectiveness.

### *2.2.4. Employees' Work Engagement*

Employee work engagement is a popular concept in business and academia, having been in the limelight of the 1990s, and it was one of the top-five biggest challenges for business organizations at

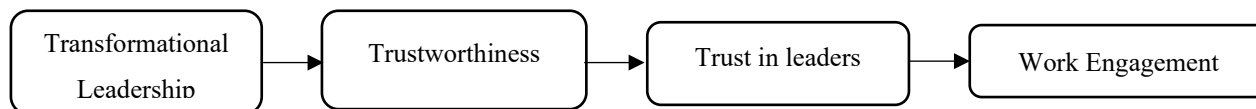


that time. (Schaufeli, 2012). Work engagement was conceptualized as a work behavior characterized by employees' involvement, commitment, enthusiasm, and passion for their tasks. (Attridge, 2009). In other words, the work engagement was defined as the state of mind characterized by vigor, absorption, and dedication. (Knight et al., 2017). Recent scholars have simplified and robustly defined the concept of work engagement as the comprehensive involvement of employees in a specific task. (Jnaneswar & Ranjit, 2023). Thus, by combining all basic concepts, employees' work engagement can be operationalized as their full investment in involvement, dedication, and vigor for a specific task, enabling them to perform their assigned duties and job responsibilities efficiently.

Employees' work engagement is an organizational outcome in which employees behave with full energy (vigor), actively participate in their assigned tasks, and happily take an interest or concentrate on their work activities or assigned tasks (George et al., 2022). Scholars view employees' work engagement as a success factor for an organization, one that is directly dependent on the particular leadership style an employee experiences or receives at the workplace (Ly, 2024). Within an organization, employees who work in regular productive routines have a specific dose of confidence from their management, where the impact of integrity gives a constructive ground to the followers for honestly trusting their leaders and showing devotion in their jobs (Zhou et al., 2022). There are other employees' behaviors like citizenship behavior, job satisfaction, etc., but work engagement has become the most significant predictor of positive work attributes because it's the most fundamental and critical concept in organizational change, growth, and development (Meng et al., 2022). Thus, employee work engagement, being the most critical and challenging factor for management, indicates its worth and vitality for organizational success and reflects various predictors essential to cultivate it.

### **2.3. Conceptual Framework of the Study**

This study primarily aims to examine the impact of transformational leadership on employees' work engagement, with sequential mediation by trustworthiness and trust in leaders. This objective is based on the cognitive-emotional-behavioral pathway, where transformational leadership is seen as an initial positive gesture from organizations with strong characteristics, intended to trigger and positively influence employees' emotional, cognitive, and behavioral attitudes collectively. The SET theoretically supports the designed aim that, indeed, if employees receive favorable and supportive attitudes from their leaders, these attitudes act as a catalytic agent, stimulating employees' motivation to respond positively to their received input as positive work outcomes. To graphically present the described sense of associations, the conceptual framework of the study in Figure 2.1 is designed as follows:

**Figure 1***Conceptual framework of the study*

## 2.4. Empirical Literature Review and Hypotheses Development

This section provides a comprehensive discussion of previous literature studies, their reported results, the nature of the relationship between the variables, and empirical evidence. All these features will serve as an empirical roadmap to craft specific associations among the framed variables in the conceptual framework, thereby enabling the research objectives to be answered effectively.

### 2.4.1. Impact of Transformational Leadership on Employees' Work Engagement

Transformational leadership is a double-edged trait in leaders. On one hand, transformational leadership demonstrates an individual-focused approach that guides followers in developing task-completing capabilities by communicating expectations and providing intellectual stimulation, recognition, and personal development. On the other hand, they focus on team-based behaviors to strengthen team effectiveness by underlying team identity and communicating a vision of team-building strategies (Meng et al., 2022; Wang & Howell, 2010). It's a multilevel concept where leaders give a high objectivity and a higher level of agreement to enhance leadership styles for the sake of employees and the organization (Lee et al., 2024). Drawing from the SET, scholars have established a notion that the perceptions of employees on the enactment of transformational leadership elicit employees' motivation, determination, and devotion to work (Chua & Ayoko, 2021). Serving a bridge role, transformational leadership provides adequate information, resources, and support to employees that they need to flourish in their work engagement (Monje-Amor et al., 2020). Through inspirational motivation and intellectual stimulation, transformational leadership develops a free, comfortable space of trust in employees by empowering them to take additional responsibilities, leading to superior performance indices (Umair et al., 2024).

**H1:** Transformational leadership has a significant impact on employees' work engagement.

### 2.4.2. Transformational Leadership as an Antecedent of Trustworthiness and Trust in Leaders

A leader-member exchange is a relationship that can never be built without the pillar of trust and the emotional state of trustworthiness in the leaders (Legood et al., 2021). Leaders are the front-line players who play the role of an idol to illustrate trustworthiness by radiating some extraordinary skills, compassion, competencies, character, or a man of principles and benevolence traits (Höddinghaus et al., 2021). From the ability facet, leaders have sufficient knowledge in their fields, enabling them to

meet their employees' needs through cognitive abilities and emotional intelligence. In the benevolence facet, transformational leadership has one of its four elements: individualized consideration. With such a trait, employees perceive a sense of acknowledgement, care, and attention from their leaders, so their reliability and comfort increase (Lee et al., 2024).

Moreover, when these exclusive characteristics of transformational leadership, i.e., motivational, inspirational, and supportive gestures, play a magnificent role, it guarantees to increase employees' trust in their leaders. It's because their leaders or managers are fully committed to their responsibilities and actively taking into account employees' emotional needs (Yuan et al., 2022). This sense of emotional safety and fulfillment develops confidence in employees that they can voluntarily align their behavior with their managers' commands. Thus, transformational leadership is a specific leadership trait that can give a perfect illustration of trustworthiness and help employees develop trust in them. Using these empirical ideas, this study has designed the following hypotheses:

**H2:** Transformational leadership significantly increases leaders' trustworthiness.

**H3:** Transformational leadership significantly impacts the level of trust in leaders among the employees.

#### *2.4.3. Mediating Influences on Trustworthiness and Trust in Leaders*

Trust and trustworthiness are two closely related cognitive-emotional pathways that require certain leadership behavioral patterns and observable conditions. These concepts work on a simple phenomenon that when employees or followers observe some constructive signals from leaders (like transformational leadership traits with intellectual stimulation, individualized consideration, and others), they start to trust their leaders by considering them a trustworthy person who can understand them, can fulfill or acknowledge their needs, and can bring necessary developments on the job desk when required (Tigre et al., 2022). Prior research has underlined the connection between trust and trustworthiness within a leader-member relationship context by saying that trustworthiness is a cognitive facet that depends on three categories. While these categories were fulfilled, followers shifted towards their emotional mechanisms, like trust in leaders (Dunning et al., 2012).

**H4:** Trustworthiness has a significant mediating role between transformational leadership and employees' work engagement.

**H5:** There is a significant positive mediating role of trust in leaders between transformational leadership and employees' work engagement.

As described previously, there is a chain comprised of a cognitive-emotional-behavioral pathway that just needs an initial signal to work. In a recent investigation (Lee et al., 2024), scholars highlighted that most studies emphasize trust as a mediator, but neglect the predecessor of trust, i.e.,

trustworthiness. They argued that transformational leadership is a pure reflection of trustworthiness, with positive behavioral traits that can serve as a spark for employees. After receiving such supportive facets, employees build trust in leaders and begin exhibiting constructive organizational behaviors, such as citizenship behaviors. After discovering that their argument was valid, they further suggested that future scholars must evaluate how the stated pathway can trigger other organizational outcomes. (Lee et al., 2024). This study has paid primary attention to the scholarly suggestion and transformed their empirical model and suggestion into the following hypothesis:

**H6:** Trustworthiness and trust in leaders mediate the relationship between transformational leadership and employees' work engagement.

### **3. Research Methodology**

#### **3.1. Research Philosophies**

Research philosophy is a basic set of beliefs and assumptions that helps researchers on how they can develop knowledge (Mark Saunders, 2009). In basic reality measurements, some scholars perceive reality as an objective measure in which the observations are considered as defined patterns and one entity. In contrast, the subjective researcher disagrees with the defined laws of objectivity and argues that reality can be grounded in different opinions, perceptions, and causal actions of different people, which should be the focus. The objective approach is reciprocal to the positivist philosophy, and subjectivity is associated with interpretivism (Mark Saunders, 2009). In this study, the focus is to investigate the role of leadership styles in employees' emotional and behavioral responses, and it aligns more closely with the basic assumptions of the positivist philosophy and the approval of universal laws based on causal effect relationships. This causal-effect testing is common in research objectives and in positivist philosophy. Therefore, this study was a positivist approach.

#### **3.2. Research Approaches**

The research can follow either a deductive approach or an inductive approach. Both types have a counterproductive relationship with each other. One starts with general or universal ideas, narrows them to specific assumptions, and tests them using empirical observations. Conversely, the inductive approach seeks to identify generally applicable themes and ideas from specific assumptions built into the research questions (Saunders, 2009). Most scholars who follow the positivist philosophy select the deductive approach to theory development. The deductive approach, also called the theory-testing approach, has been used in this study to derive and support the synthesized hypothesis by drawing on the theoretical assumptions of SET. These few justifications illustrate a strong synergy between the deductive and theory-testing approaches of this study.

### 3.3. Research Strategy

Research strategy, also known as research design or method, can be either quantitative or qualitative. Sometimes, researchers use a mixed-method or multi-method strategy to draw multidimensional conclusions from different types of datasets. As the names suggest, the quantitative method uses numerical figures and secondary information from large populations to make general conclusions and test whether the findings support or reject the theory. In contrast, the qualitative method is based on descriptive information gathered from a limited number of cases to assemble meaningful themes. This study followed a quantitative strategy because the objectives indicate that employees need to be targeted.

### 3.4. Sample, Data Collection, and Target Population

In this study, the research's main aim is to investigate the employees' behavioral outcome, i.e., work engagement; therefore, the employees were selected as the main population pool of the study. But countless employees are serving in different fields and sectors, so a specifically defined target population was required. To address this issue, the study selected service sector employees purposively and collected only their responses, excluding all other higher authorities and administrative staff. To understand how many responses will be enough, the study used a scholarly suggestion that a sample size of 350 responses can guarantee reliable and error-free results (J. F. Hair Jr et al., 2021); therefore, 350 sample size was selected for this study.

When distributing the designed questionnaire to the target population, the researcher encountered significant issues. In online data collection, it was difficult to reach the right respondent, and people were reluctant to share their organization-related information with an unknown person. Therefore, this study used a self-administered survey, physically approached the appropriate respondent, and collected their responses using a paper-and-pencil questionnaire.

### 3.5. Data Collection Tool

A questionnaire is the primary tool in survey design for collecting responses from a large set in a defined pattern. A questionnaire is designed into different sections, each containing specific questions or descriptions necessary to ensure the ethical credibility of the data collection practice and to gather respondents' perceptions.

For designing the survey tool for this study, the researcher followed a traditional format, with the first section describing the purpose of the survey, the benefits or significance of the research, and the ethical regulations that will be followed during data processing and analysis. All these descriptions will help the researcher gain trust in the respondents.

Next, the second section asks some basic demographic questions, such as gender, age, and education. Following this, the main section of the questionnaire has been attached, along with the adopted items

for measuring the key constructs of the study. In this myriad, the study used an 8-item scale to measure the independent variable, i.e., transformational leadership, which was borrowed from Zhu and Huang (2023). The sample items used in the questionnaire are “The leader does not care about personal gain or loss for the sake of the team or collective good” and “The leader demonstrates competent, driven, and confident traits.” Next, the study identified a dimensional scale for measuring the first mediator, i.e., trustworthiness. This construct is comprised of three basic components that include ability, benevolence, and integrity, and these components were measured with 6, 5, and 6 items, respectively (Mayer & Davis, 1999). Here, ability was scaled on items like “The leader is very capable of performing their job.” Benevolence was measured with sample items including “The leader is very concerned about my welfare,” and integrity was assessed using 6 items, including statements like “The leader's actions and behaviors are very consistent.”

Following this, the study discovered a short 4-item scale for measuring the second mediator, i.e., trust in leaders. For this variable, items like “I feel a strong loyalty to my leader” and “I feel quite confident that my manager will always try to treat me fairly” were extracted from (Håvold et al., 2021). In the last, to measure the dependent variable of the study, a 5-item scale was developed from a study containing items such as “Feeling strong and vigorous at work,” “Feeling like going to work when getting up in the morning,” and “Feeling inspired by the job.” (Baquero, 2023). To obtain all responses within a measurable, systematic pattern, all adapted or adopted items were measured using the most popular Likert scale, ranging from 1 to 5. A complete description of the adapted items is attached in the Appendix.

### **3.6. Data Analysis Procedure**

In quantitative data analysis programs, Smart-PLS is considered the most advanced, credible, error-free, user-friendly graphical interface and third-generation program that can efficiently analyze all complex associations like moderation, serial mediation, moderated-mediation relationships, etc. (Sarstedt & Cheah, 2019). In Smart-PLS, researchers have the capability to perform both inner (structural) and outer (measurement) model assessment tests. In these main tests, the study has applied the construct reliability, construct validity, and model fitness tests. Moreover, using the bootstrap method with 5000 resamples, the hypothesis test was performed with significance levels of 0.05 and 0.01. However, to avoid any basic quality checks in the dataset, the basic descriptive statistics test was also included to ensure that the sample has no outliers or missing values.

### **3.7. Ethical Considerations**

Ethical considerations include legal regulations and research regulatory standards; every researcher must follow them to maintain the credibility of his or her efforts. In ethical considerations, the researcher takes high care of the safety of the participant and himself to avoid any serious damage and

loss (Sekaran & Bougie, 2016). In quantitative primary data collection, there are serious concerns of informed consent, voluntary participation, anonymity of sensitive information (if any), and confidentiality or security of the data set (Bhandari, 2021). Each stated ethical standard was strictly adhered to, and only voluntary participation was accepted. Moreover, the gathered responses didn't contain any personal or sensitive information, and all the reactions were saved in encrypted files. This way, the ethical standards of research were met.

## 4. Results and Interpretations

### 4.1. Descriptive Statistics

In SPSS, descriptive statistics were performed, and the results are presented in Table 4.1. The table presents different statistical estimates of the gathered responses. In the table, the figure  $N = 225$  responses, pictures the total number of observations or responses entered for data analysis. The minimum and maximum values have validated the accurate arrangement of responses across all questionnaire items, as compared to the response sheet range (1=minimum and 5=maximum). In the subsequent columns, some basic descriptive statistics, including the mean and standard deviation, indicate that the data are closely distributed around the neutral value, i.e., 3, and the estimated values in the table have very minimal deviation or error terms. Lastly, the skewness and kurtosis values have confirmed that the data is evenly distributed and there is no issue of skewed distribution because all statistical values for Skewness are between  $\pm 1$ . Thus, the descriptive statistics test helped the researcher verify and meet the initial quality standards of the data.

**Table 4.1**

Descriptive Statistics of Questionnaire and Constructs

	N Statistic	Min Statistic	Max Statistic	Mean Statistic	Std. D Statistic	Skewness		Kurtosis	
						Statistic	Std. Er	Statistic	Std. Er
TL1	225	1	5	3.93	1.380	-1.114	.162	-.129	.323
TL2	225	1	5	3.98	1.371	-1.198	.162	.044	.323
TL4	225	1	5	3.91	1.403	-1.075	.162	-.266	.323
TL5	225	1	5	3.92	1.446	-1.092	.162	-.323	.323
TL7	225	1	5	3.96	1.388	-1.148	.162	-.113	.323
TL8	225	1	5	3.99	1.364	-1.231	.162	.161	.323
TL	225	1.00	5.00	3.9474	1.20734	-1.266	.162	.603	.323
TR1	225	1	5	3.60	1.388	-.728	.162	-.810	.323
TR2	225	1	5	3.53	1.405	-.590	.162	-1.014	.323
TR3	225	1	5	3.53	1.386	-.584	.162	-.977	.323
TR4	225	1	5	3.43	1.438	-.515	.162	-1.145	.323
TR	225	1.00	5.00	3.5244	1.18725	-.663	.162	-.504	.323
AM1	225	1	5	3.53	1.333	-.604	.162	-.927	.323
AM2	225	1	5	3.54	1.336	-.614	.162	-.889	.323
AM3	225	1	5	3.48	1.370	-.547	.162	-1.026	.323
AM4	225	1	5	3.49	1.323	-.650	.162	-.808	.323
AM5	225	1	5	3.49	1.347	-.578	.162	-.943	.323
AM6	225	1	5	3.48	1.389	-.605	.162	-.964	.323
BV1	225	1	5	3.52	1.340	-.599	.162	-.901	.323
BV2	225	1	5	3.31	1.383	-.410	.162	-1.181	.323

BV3	225	1	5	3.66	1.276	-.780	.162	-.529	.323
BV4	225	1	5	3.56	1.342	-.631	.162	-.866	.323
BV5	225	1	5	3.64	1.285	-.716	.162	-.668	.323
INT1	225	1	5	3.64	1.282	-.728	.162	-.616	.323
INT2	225	1	5	3.47	1.333	-.616	.162	-.860	.323
INT3	225	1	5	3.65	1.245	-.733	.162	-.546	.323
INT4	225	1	5	3.62	1.273	-.729	.162	-.595	.323
INT5	225	1	5	3.49	1.327	-.607	.162	-.866	.323
TRW	225	1.00	5.00	3.5358	.94477	-.802	.162	.051	.323
WE1	225	1	5	3.61	1.039	-.752	.162	.067	.323
WE3	225	1	5	3.26	1.514	-.461	.162	-1.299	.323
WE4	225	1	5	3.66	1.061	-.827	.162	.246	.323
WE5	225	1	5	3.24	1.459	-.407	.162	-1.235	.323
WE	225	1.00	5.00	3.4422	.97055	-.201	.162	-.723	.323

## 4.2. Measurement Model Assessment

In reflective measurement model assessment, indicator reliability and construct validity are estimated to assess whether the data are statistically accurate and meet the statistical standards (J. Hair Jr et al., 2021). In this section, all the stated statistical tests are presented in the subsequent sections.

### 4.2.1. Indicator Reliability

Indicator reliability is also known as the factor loadings of the adopted items corresponding to their main construct. To estimate the factor loadings of the adopted items, this study performed a factor analysis in PLS software, and the resulting outcomes are presented in Table 4.2. In factor analysis, some specific assumptions were focused on, that factor loadings of the adopted items of one variable must load in their respective columns, and all loadings must be greater than 0.6 (J. Hair Jr et al., 2021; Kyriazos & Poga-Kyriazou, 2023). The scale items TL2, TL6, INT6, and WE2 showed some glitches of loadings  $< 0.6$  in the data analysis. Therefore, these scale items were deleted. After this deletion, the factor loading test was performed, and the results revealed that there are no issues, and all values surpassed all assumptions or specifications of good indicator reliability.

### 4.2.2. Internal Consistency Reliability

Construct Reliability is the other name for internal consistency reliability. According to statistical scholars in literature (J. Hair Jr et al., 2021), Cronbach's alpha and Composite Reliability indicators with a standard cut-off value  $>0.7$  are used to assess the construct reliability (Haji-Othman & Yusuff, 2022). Following the academic trend, this study assessed the construct reliability, and the analysis revealed that all adopted items have high reliability scores, thus assuring their credibility to define their main constructs. The analysis results for the construct reliability have been arranged in Table 4.2.

### 4.2.3. Convergent Validity

Convergent validity is the first type of construct validity that estimates the overall variance of all adopted items defined by their main construct (Piedmont, 2024). The convergent validity is measured



with the Average Variance Extracted AVE indicator. The AVE value is also known as the communality of a construct, with a minimum acceptable AVE of 0.50. This value interprets that the main variable can explain more than 50% of the adopted items, which makes the main variable (J. Hair Jr et al., 2021). In this study, the factor analysis in PLS estimated the AVE values for all constructs as well. In Table 4.2, the last column reports the AVE values, where all AVE values are greater than 0.5, which means convergent validity is established.

**Table 4.2**

Factor loadings, multi-collinearity, reliability, and validity analysis

Constructs	Item codes	Item loadings	VIF	Alpha	CR	AVE
<b>Trustworthiness:</b>						
<b>Ability</b>	AM1	0.744	2.192	0.936	0.944	0.515
	AM2	0.692	2.024			
	AM3	0.716	2.123			
	AM4	0.622	1.731			
	AM5	0.662	1.824			
	AM6	0.640	1.792			
<b>Benevolence</b>	BV1	0.681	1.839			
	BV2	0.614	1.975			
	BV3	0.728	2.396			
	BV4	0.772	2.362			
	BV5	0.755	2.281			
<b>Integrity</b>	INT1	0.810	2.774			
	INT2	0.724	2.678			
	INT3	0.809	2.924			
	INT4	0.803	2.880			
	INT5	0.661	2.152			
<b>Transformational leadership</b>	TL1	0.845	2.638	0.933	0.947	0.750
	TL2	0.900	3.602			
	TL4	0.865	2.925			
	TL5	0.860	2.849			
	TL7	0.840	2.451			
	TL8	0.883	3.137			
<b>Trust in leaders</b>	TR1	0.848	2.054	0.867	0.909	0.715
	TR2	0.828	1.932			
	TR3	0.852	2.140			
	TR4	0.854	2.189			
<b>Employee work engagement</b>	WE1	0.824	1.655	0.767	0.850	0.588
	WE3	0.712	1.339			
	WE4	0.817	1.631			
	WE5	0.706	1.422			

#### 4.2.4. Discriminant Validity

Discriminant validity is quite opposite to convergent validity, as it focuses on the uniqueness in the data set, the adopted items, and the main constructs. It simply assesses multicollinearity, and there are

different methods and statistical assumptions for demonstrating discriminant validity. First, the Fornell and Larcker method was applied, which assumes that all constructs must have high self-correlation as compared to other constructs in the model (Fornell & Larcker, 1981). Following this assumption, the study conducted a discriminant validity test, shown in Table 4.3 below, and the results indicated that discriminant validity is established in the data set.

**Table 4.3**

Fornell and Larcker analysis

Constructs	Transformational leadership	Trust in leaders	Trustworthiness	Work engagement
Transformational leadership	0.866			
Trust in leaders	0.590	0.845		
Trustworthiness	0.519	0.452	0.717	
Work engagement	0.554	0.516	0.510	0.767

Next, discriminant validity was assessed using HTMT analysis. In this analysis technique, the scholar assumes that cross-correlation is more important than self-correlation, and all variables must have a correlation less than 0.85 (Henseler et al., 2015). Using this analysis method, the study revealed that the model's discriminant validity is established, and all variables have cross-correlations less than 0.85. Thus, discriminant validity has been established at the construct level, and HTMT is shown below in Table 4.4.

**Table 4.4**

HTMT ratio analysis

Construct	Transformational leadership	Trust in leaders	Trustworthiness	Work engagement
Transformational leadership	-			
Trust in leaders	0.654	-		
Trustworthiness	0.545	0.494	-	
Work engagement	0.640	0.623	0.590	-

Next, to assess the discriminant validity at the indicator level, the study integrated a cross-loading test. This test analyzes the association between all items and all constructs, and it decodes the extent of association among the adopted items. This test has the same threshold of value  $<0.6$ . Using this criterion, the cross-loading test was performed, which revealed that there are no multicollinearity issues at the indicator level. Table 4.5 shows the cross-loading below.

**Table 4.5**

Cross-loading analysis

Item codes	Transformational leadership	Trust in leaders	Trustworthiness	Work engagement
AM1	0.348	0.293	<b>0.744</b>	0.393
AM2	0.339	0.298	<b>0.692</b>	0.339
AM3	0.343	0.311	<b>0.716</b>	0.337

AM4	0.341	0.239	<b>0.622</b>	0.264
AM5	0.228	0.289	<b>0.662</b>	0.322
AM6	0.349	0.299	<b>0.640</b>	0.367
BV1	0.310	0.290	<b>0.681</b>	0.381
BV2	0.335	0.346	<b>0.614</b>	0.300
BV3	0.320	0.268	<b>0.728</b>	0.328
BV4	0.362	0.316	<b>0.772</b>	0.388
BV5	0.463	0.341	<b>0.755</b>	0.373
INT1	0.470	0.423	<b>0.810</b>	0.449
INT2	0.357	0.292	<b>0.724</b>	0.376
INT3	0.455	0.444	<b>0.809</b>	0.456
INT4	0.445	0.367	<b>0.803</b>	0.428
INT5	0.382	0.278	<b>0.661</b>	0.288
TL1	<b>0.845</b>	0.451	0.399	0.431
TL2	<b>0.900</b>	0.560	0.495	0.511
TL4	<b>0.865</b>	0.492	0.434	0.465
TL5	<b>0.860</b>	0.498	0.440	0.489
TL7	<b>0.840</b>	0.532	0.445	0.480
TL8	<b>0.883</b>	0.524	0.475	0.494
TR1	0.514	<b>0.848</b>	0.426	0.437
TR2	0.497	<b>0.828</b>	0.359	0.427
TR3	0.507	<b>0.852</b>	0.365	0.439
TR4	0.478	<b>0.854</b>	0.375	0.441
WE1	0.474	0.460	0.439	<b>0.824</b>
WE3	0.414	0.346	0.334	<b>0.712</b>
WE4	0.483	0.431	0.438	<b>0.817</b>
WE5	0.294	0.323	0.336	<b>0.706</b>

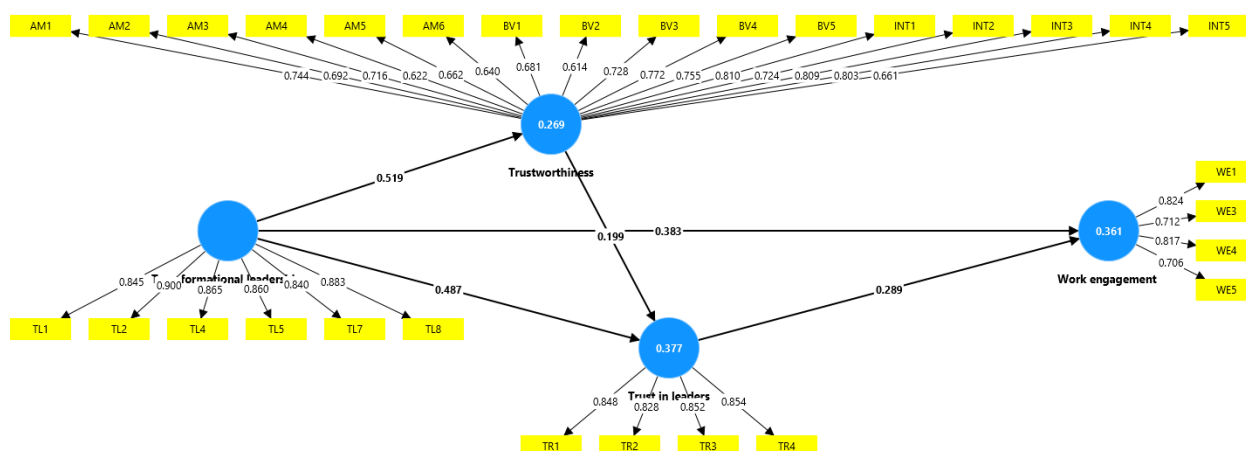
### 4.3. Model Fit Analysis

In the factor analysis, the model fitness test was integrated to evaluate the statistical accuracy of the model. In Smart PLS, SRMR and NFI indices are the two main statistical indicators. SRMR value has an idealistic range of  $>0.10$ . Meanwhile, the NFI has to be greater than 0.9 in ideal cases (Yew et al., 2022). In this study, the analysis matched the idealistic state in terms of SRMR, but for the NFI value, the analysis showed a value of  $0.820 < 0.90$ . To justify the encountered outcomes, the official website of Smart PLS suggests that an NFI value greater than 0.8 is also reliable (Ringle, 2024). In this way, the model fitness was confirmed and shown in Table 4.6, and Figure 4.1 shows the graphical view.

**Table 4.6**

Model fit analysis

	Saturated model	Estimated model
SRMR	0.053	0.064
d_ ULS	1.320	1.924
d_ G	0.661	0.676
Chi-square	780.459	795.754
NFI	0.824	0.820

**Figure 4.2***CFA graphical view*

#### 4.4. Structural Model Assessment

In this section, the structural model assessment was performed using the benchmark of significance levels 0.05 and 0.01. Using this method, the designed hypotheses were tested, and the analysis revealed that there is a significant positive relationship between transformational leadership and employee work engagement ( $B = 0.383$ ,  $p = 0.00$ ). Using this empirical evidence, the first hypothesis was supported. Next, the results showed that there is a significant relationship between transformational leadership and trustworthiness ( $B = 0.519$ ,  $p = 0.00$ ); thus, H2 was supported. In the last, the analysis showed that transformational leadership can significantly influence the trust in leaders ( $B = 0.487$ ,  $p = 0.00$ ). This way, all direct associations were supported. Table 4.7 below shows the direct effects output.

**Table 4.7**

SEM output (Direct effects)

Estimated Relationships	Beta	t-value	P values	f-square
Transformational leadership -> Trust in leaders	0.487	7.602	0.000	0.279
Transformational leadership -> Trustworthiness	0.519	10.276	0.000	0.369
Transformational leadership -> Work engagement	0.383	5.737	0.000	0.150

In addition to this, the bootstrapping method was used to indirect effects of trustworthiness and trust in the leader. In this myriad, the results revealed that transformational leadership has an indirect effect on work engagement through trustworthiness ( $B = 0.103$ ,  $p = 0.006$ ). Similarly, the results have shown that trust in leaders has a significant mediating influence between transformational leadership and work engagement ( $B = 0.141$ ,  $p = 0.00$ ). In the last, the results revealed that trustworthiness and trust in leaders have a sequential mediation effect between transformational leadership and work engagement

( $B = 0.030$ ,  $p = 0.04$ ). Table 4.8 below shows the indirect effects output. And Table 4.8 below shows hypotheses testing results.

**Table 4.8**

SEM output (Indirect effects)

Estimated Paths	Beta	t-value	P values
Transformational leadership -> Trust in leaders -> Work engagement	0.141	3.544	0.000
Transformational leadership -> Trustworthiness -> Trust in leaders	0.103	2.743	0.006
Transformational leadership -> Trustworthiness -> Trust in leaders -> Work engagement	0.030	1.986	0.048

**Table 4.9**

*Hypothesis Testing*

No.	Statement	Sig	Decision
H1	Transformational leadership has a significant impact on employees' work engagement.	0.00	Supported
H2	Transformational leadership significantly increases the trustworthiness of leaders.	0.00	Supported
H3	Transformational leadership significantly impacts the level of trust in leaders among the employees.	0.00	Supported
H4	Trustworthiness has a significant mediating role between transformational leadership and employees' work engagement.	0.006	Supported
H5	There is a significant positive mediating role of trust in leaders between transformational leadership and employees' work engagement.	0.000	Supported
H6	Trustworthiness and trust in leaders have a sequential mediating role between the relationship of transformational leadership and employees' work engagement.	0.048	Supported

## 5. Discussion and Conclusion

### 5.1. Discussion of the Key Findings

This study aimed to investigate the role of transformational leadership on employees' work engagement with the sequential mediation of trustworthiness and trust in leaders. To effectively answer this aim, this study designed different research questions that were transformed into specific hypotheses for investigation.

To empirically answer the first research question, the study developed three hypotheses to investigate the impact of transformational leadership on trustworthiness, trust in leaders, and work engagement. To comprehensively answer RQ1, the study tested its first hypothesis: transformational leadership is a significant predictor of employees' work engagement. The exquisite features of transformational leaders such as high dedication to task accomplishment, team support, and exclusive competencies, develop a highly strong cognitive signal to the employees. This cognitive input is a social cue from leaders that conveys a sense of mission accomplishment and importance to employees, and they begin to feel strong vigor and enthusiasm for their work. Literature scholars share similar perceptions that transformational leadership fosters work engagement by giving access to required information, desired

opportunities, adequate resources, and individualized support (Monje-Amor et al., 2020). Other scholars highlighted that transformational leaders stimulate high productivity and long-term job satisfaction by increasing work engagement (Juyumaya & Torres, 2023). Even recent studies have shared aligned perceptions from the cited scholar that transformational leadership is significantly associated with employee engagement (Nawaz et al., 2024). Similarly, the second hypothesis results confirmed that the relationship between transformational leadership is significantly associated with trustworthiness.

Answering the second research question, the results have shown that transformational leadership has a significant influence on work engagement, with the mediation of trustworthiness. Previous studies have mostly emphasized trust in leaders as a mediator with transformational leaders to increase employees' positive contribution to work, except for one recent study that underlined the significant mediating role of trustworthiness with transformational leadership (Lee et al., 2024). Justifying the outcomes of this study, the literature scholar highlighted a nuanced understanding of trustworthiness as an emotional representation of transformational leadership that has significant potential to increase employees' work engagement.

For the third research question, various scholars have empirically assessed and justified the mediating role of trust in leaders in the relationship between transformational leadership and different organizational outcomes (Cao & Le, 2024; Kelloway et al., 2012; Le & Lei, 2018; Liu et al., 2010). All these different studies have underlined the same fact as encountered by this study, that the leader-member exchange relationship is the most crucial factor in organizational innovation, change and growth. This relationship is imperative to generate the emotional response of trust if leaders exhibit transformational traits in management (Cao & Le, 2024).

In the last research question, the focus was on the serial mediation of trustworthiness and trust in the relationship between transformational leadership and employee work engagement. This study has made a novel contribution to the literature by providing a nuanced understanding that trustworthiness and trust in leaders are two different but deeply connected traits, and following the cognitive-emotional-behavioral pathway, these factors are significant sequential factors that pipeline the cognitive signal of transformational leadership towards the behavioral outcome of employee work engagement. This study has added a new perspective about employees' work engagement by elaborating the emotional needs, a sense of confident reliance, and devotion that develop after experiencing good leadership behavior from a manager. This cognitive factor has robust managerial and leadership features that play a significant role in critical times for employees, leading them to perceive their transformational leader as trustworthy, which helps them boost their trust and task dedication. If the main findings are arranged in a few key points, this study has extended the literature

by 1) Trustworthiness is an emotional response from employees for their leaders on their transformational leadership factor, 2) trustworthiness and trust are two distinctive factors in the literature related to trust and these are two middle agents in the cognitive-emotional-behavioral pathway, 3) transformational leadership is a significant predictor to different organizational behavioral outcomes of employees and this study added up an empirical evidence for employees work engagement.

## **5.2. Significance of the Study**

Whenever research is completed, it contributes to the current empirical literature and yields practical insights for managers, employees, and the general public. This section has individually described the theoretical and practical implications of the study in the following sections:

### *5.2.1. Theoretical Significance and Contributions*

This study has several theoretical significances and contributions, contributing to the existing literature on leader-member exchange relationships and SET. First, using the theoretical assumptions of SET, this study has shown that a leader's positive input can foster employees' positive emotional responses of trustworthiness and motivate them to give their best outputs through work engagement. Following the leader-member exchange (LMX) concept, this study has adopted the cognitive-emotional-behavioral pathway. Using this pathway, this study justified the transformational leadership style as the best cognitive trait, providing sufficient support and inspirational guidance to employees, while acknowledging that this sense of recognition significantly triggers them to develop a trusting emotional state toward their leaders. As the leaders are radiating transformational leadership, including extensive skills and competencies, organizational principles and goals as a demonstration of integrity, and individualized consideration as benevolence. All these key features collectively germinate the next pathway step of positive emotional state, i.e., trust in leaders. In the last, the study saturated the knowledge by sharing that the emotional pathway leads to positive behavioral outcomes, i.e., work engagement. This pathway has been empirically tested and shared with academicians to understand the critical responsibilities of leaders in embedding constructive, organizationally supported factors in employees to enable them to take maximum advantage of their roles.

### **5.2.2. Practical Implications and Insights**

The stated cognitive-emotional-behavioral pathway is the best illustration for all higher authorities, managers, and regulatory bodies that have direct dealings with the labor force or subordinates. In Pakistan, there are significant issues of leader-member exchange relationships that can be easily resolved if professional leaders start developing a constructive ground of trustworthiness in their personalities. This study has even identified the basic ingredient necessary for developing these

trustworthiness perceptions: transformational leadership. Lack of trust is a common issue among employees that hinders them from sharing their concerns with managers, which leads to potential loss of resources, skilled labor force, and projects. To avoid such disturbing consequences, organizations must train their managers to build healthy relationships within supportive environments, gain their trust, and achieve high project success, with the organization achieving a high profile in terms of growth and profitability. These suggestions aren't context-specific; therefore, employees from any sector in any country can use this study's findings to understand the organizational factors that play significant roles as obstacles to developing their work engagement. Moreover, the critical analysis conducted in the literature review can serve as a beginner's guide for managers seeking ways to improve their leadership style and develop a strong leader-member exchange relationship with their employees.

### **5.3. Limitations of the Study**

This study encountered different limitations that are stated in this section. First, the study focused on a small sample size due to time constraints and the inability to include geographically inaccessible respondents in the survey. Moreover, this study didn't attempt to assess any bias level in the gathered data sample due to a lack of understanding and survey-based data collection is often considered a biased method of data collection (Loomis & Paterson, 2018). In the empirical model, the study examined only linear relationships without any intervention of external concepts like moderators, which adds to another limitation of the study.

Furthermore, different leadership styles in literature cast a positive image on their subordinates, but this study used only the overall role of transformational leadership. All these facets are included in the limitations of the study that can be used as guidelines for future scholars to enhance the robustness of their proposed ideas and research.

### **5.4. Future Suggestions for Future Research**

This study offers some suggestions for future scholars seeking to extend the scope of this empirical idea. First, future scholars should consider adding additional concepts related to employees' organizational behavior to the empirical model. In the era of digitalization, employees need to learn digital skills from their managers, which the future scholars can investigate the role of digital leadership in increasing employees' positive behavioral outcomes (Chatterjee et al., 2023). Moreover, there are different organizational outcomes and employee enhancement factors that are associated with the leader-member exchange relationship. In this manner, the future scholars can integrate employee scouting behavior, affective commitment, and their extra-role behaviors as dependent variables for investigation (Aboramadan et al., 2022; Lee & Kim, 2022). Future scholars can rearrange the model by framing leadership style as a moderator to boost employees' trust in leaders and positive



organizational behaviors. Future scholars can test the empirical model in other geographical and contextual settings to enhance the robustness of the tested idea in this study. Moreover, some basic methodological and sample-size limitations can be addressed by targeting or involving physically inaccessible respondents to enhance the study's generalizability.

### **5.6. Summary of the Research**

Transformational leadership is known for its elite features in terms of management, support, motivational inspiration, and guidance. It is a key feature in turbulent environmental factors that can sustain the element of positive organizational outcomes in employees. Using this idea, the study designed its conceptual framework of the relationship between transformational leadership and employees' work engagement, with trustworthiness and trust in leaders as serial mediators. To test this empirical idea, the perks of SE theory were utilized, and the deductive approach was used to test the underpinning theory. This research used a quantitative approach, gathering a large sample of perceptions to produce generalized conclusions about employees' work engagement. To address this goal, a survey design was used, the survey tool was developed in a traditional layout, and it was distributed to service sector employees using a purposive sampling approach. After gathering the responses, the data sample was analyzed using the PLS-SEM approach, which involves performing measurement and structural model analyses. Based on the analysis results, all framed associations were supported, confirming all designed hypotheses. Using these results, the study made significant contributions by providing a clear picture of the leader-member exchange relationship and its positive behavioral outcomes, such as work engagement, which is one of the most influential keys to organizational growth and success. In addition, the limitations encountered due to sample size constraints, methodological constraints, and possible ways to extend the empirical model of this study are presented.

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