

Addis Ababa University

College of Business and Economics

Department of Management

Linking Transformational Leadership to Employee Creativity in Ethio Telecom: A Moderated Parallel Mediation Model

By

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Addis Ababa, Ethiopia

Declaration

I, Luile Alemayehu Bitew, declare that this thesis entitled “Linking Transformational Leadership to Employee Creativity in Ethio Telecom: A Moderated Parallel Mediation Model” is my original work, prepared under the guidance of Dr. Zelalem Gebretsadik. I further confirm that this thesis has not been submitted either in part or in full to any other institutions for the purpose of earning any degree.

Name: Luile Alemayehu Bitew

Signature: 

Date: June 10, 2026

Approval Sheet

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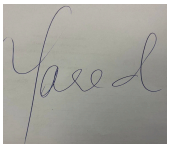
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Abstract

This study investigated the impact of transformational leadership on employee creativity at Ethio Telecom, an organization that has transitioned from a historic state monopoly into a liberalized, competitive market. A moderated parallel mediation model was tested, examining whether psychological empowerment and psychological safety simultaneously mediate the relationship between transformational leadership and employee creativity, and whether individual power distance orientation moderates the first stage of these mediated pathways. The study utilized a quantitative, cross-sectional design. Data were collected from employees at Ethio Telecom via questionnaires. Of the 356 returned questionnaires, 350 provided valid responses after data cleaning, yielding a 98.3% usable rate. The final dataset was analyzed using PLS-SEM via SmartPLS 4.1.1.8 software. The findings revealed that transformational leadership does not exert a statistically significant direct effect on employee creativity; rather, it operates entirely through two parallel psychological mechanisms. Psychological empowerment emerged as the primary mediator ($\beta = 0.199$, $p < .001$), and psychological safety served as a complementary parallel mediator ($\beta = 0.095$, $p < .001$), together accounting for 85% of the total effect of transformational leadership on employee creativity (VAF = 85%). Contrary to initial theoretical expectations grounded in the cultural values framework, individual power distance orientation did not emerge as a statistically significant first-stage moderator of either pathway (TL → PE: $\beta = 0.004$, $p = .922$; TL → PS: $\beta = 0.072$, $p = .195$). This null finding is interpreted as evidence of the universal motivational potency of transformational leadership, which appears to transcend individual cultural orientations in the organizational context studied. The study contributes to the emerging body of scholarship on leadership and creativity in Ethiopian organizations, offering both theoretical and managerial implications for Ethio Telecom's innovation agenda.

Keywords: transformational leadership, employee creativity, psychological empowerment, psychological safety, power distance orientation

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List of Abbreviations

AI	Artificial Intelligence
AVE	Average Variance Extracted
BCa	Bias-Corrected and Accelerated
CR	Composite Reliability
CMB	Common Method Bias
EC	Employee Creativity
GTL	Global Transformational Leadership
HTMT	Heterotrait-Monotrait
MLQ	Multifactor Leadership Questionnaire
KPI	Key Performance Indicators
PDO	Power Distance Orientation
PE	Psychological Empowerment
PLS-SEM	Partial Least Squares Structural Equation Modelling
PS	Psychological Safety
TL	Transformational Leadership
VAF	Variance Accounted For
VIF	Variance Inflation Factor

Chapter One: Introduction

1.1 Background of the Study

Effective leadership and employee creativity are two of the key pillars of organizational innovation and success (Belete & Valand, 2020). Fast technological change, global competition, and consumer behavior force an organization to operate its business in a context where creative solutions are often called for. As a result, leadership and creativity have gained considerable attention both in the field and the research community over the past 40 years.

Transformational leadership was first conceptualized by Burns (1978), who differentiated it from transactional leadership in the sense that transformational leaders inspire their followers transcend self-interest in pursuit of collective goals. Bass (1985) developed Burns' theory into the Full Range Leadership Model, which found the behavior of transformational leadership as a function of four 'I's': idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Bass and Avolio (1994) and Bass and Riggio (2006) developed a measurement tool, the Multifactor Leadership Questionnaire (MLQ), and Avolio et al. (2009) validated it even further. Avolio et al. (2009) analyzed the overall empirical literature and found transformational leadership is among the most influential predictors of individual and organizational performance (in terms of innovation and creative ability) across a wide variety of cultures. Nevertheless, scholars such as Koh et al. (2019) and Wang and Yu (2024) have called for contextual sensitivity in applying these Western and Asian findings to emerging economy settings, where organizational histories, power structures, and cultural norms may moderate the effectiveness of leadership behaviors.

Employee creativity (creativity of useful and novel ideas) is a strategic human capital outcome that is a priority for companies in competitive businesses (Nasir et al., 2022). The componential theory of creativity (Amabile, 1996) offers four components of creativity: domain-relevant skills, creativity-relevant processes, intrinsic task motivation, and social environment for creativity. Leadership has an impact on these determinants through generating a motivational environment for employees. Particularly, transformational leaders are found to enhance intrinsic motivation through individualized consideration and motivational goal setting, to stimulate creative cognition through intellectual stimulation, and to reduce the interpersonal risk through trust and safety (Gumusluoglu & Ilsev, 2009; Shin & Zhou, 2003).

This thesis work examined the relationship between transformational leadership and employee creativity at Ethio Telecom. It focused on individual power distance orientation as a moderating variable and both psychological empowerment and psychological safety as mediators.

Transformational leadership, aimed at promoting organizational creativity, is grounded in the ideas of employee empowerment and the establishment of a secure work environment (Amabile, 1996). Empowerment, defined by Spreitzer (1995), is the employees' sense of meaning, competence, self-determination, and impact in their work. On the other hand, psychological safety, the degree to which one feels safe to take interpersonal risks (Edmondson, 1999), is a vital condition for creativity. Psychological empowerment promotes employees' intrinsic motives and autonomy, as well as confidence and internal motivators to act creatively (Spreitzer, 1995), whereas psychological safety provides permission, risk tolerance, and freedom from interpersonal fear necessary for communicating and acting creatively (Edmondson, 1999). The moderating variable in the study, individual power distance orientation, is defined as an individual's acceptance of unequal power distribution in the workplace (Kirkman et al., 2009). This model fills the gap in literature because no empirical study has simultaneously tested psychological empowerment and psychological safety as mediators in a cultural moderation model in Ethio Telecom context, which has recently transitioned from a state monopoly into a liberalized, competitive telecom market.

1.2 Statement of the Problem

Leadership and employee creativity research has advanced rapidly for two decades. Initial studies focused on the direct relationship between transformational leadership and employee creativity (Jung et al., 2003; Shin & Zhou, 2003), demonstrating positive associations. However, more recent meta-analytic evidence (Koh et al., 2019; He et al., 2020) indicates that the direct effect of transformational leadership on creativity is small in magnitude, suggesting that the relationship is primarily indirect mediated by motivational and cognitive psychological states. This theoretical evolution has shifted scholarly attention toward identifying the specific psychological mechanisms via which transformational leadership can trigger creative behavior in employees.

Two psychological mechanisms are particularly well-studied as mediators: psychological empowerment and psychological safety. Psychological empowerment, identified by Spreitzer (1995) as a motivational state comprising meaning, competence, self-determination, and impact, provides employees with the intrinsic cognitive drive to pursue creative goals. However, more studies increasingly recognizes that empowerment alone is insufficient for sustained creative behavior in environments characterized by high interpersonal risk (Baer & Frese, 2003; Detert & Burris, 2007). Employees who feel empowered yet simultaneously fear negative repercussions for voicing unconventional ideas are likely to

withhold creative contributions (Edmondson, 1999; Carmeli et al., 2014). Psychological safety is the shared perception that the work environment is safe for interpersonal risk-taking (Edmondson, 1999), is therefore proposed as a necessary parallel mediation that enables empowered employees to translate their cognitive readiness into creative behavior. Although both constructs have been studied individually as mediators of the leadership–creativity relationship (Zhang & Bartol, 2010; Carmeli et al., 2014), no prior study has examined them simultaneously as parallel mediators within a single integrated model, leaving a significant gap in understanding their joint and comparative contribution.

A further unresolved question concerns the boundary conditions of the transformational leadership–creativity relationship across cultural contexts. Most studies conducted to date have been from Western and Asian countries (Koh et al., 2019; Wang & Yu, 2024), resulting a significant gap regarding the applicability of these findings in Ethiopian contexts. Individual power distance orientation is the degree to which an individual accepts and endorses unequal distributions of power and authority (Hofstede, 1980; Kirkman et al., 2009), has been proposed as a cultural moderator that may attenuate the effectiveness of transformational leadership in activating psychological empowerment and psychological safety, particularly in high power-distance societies such as Ethiopia (Sagie & Aycan, 2003; Bui et al., 2023). However, the empirical evidence for this moderation hypothesis is mixed, and no study to date has tested it within an Ethiopian organizational context.

Ethio Telecom is an ideal case study for examining and bridging these gaps for the following four reasons. (1) Ethio Telecom lost its monopoly in the telecommunications market to international competitors such as Safaricom Ethiopia (GSMA, 2022; Ministry of Finance, 2021) due to the liberalization and privatization of the market by the Ethiopian government. This policy increased competition, making employee creativity more important than before to Ethio Telecom. Organizational research has shown that competitive environmental dynamism enhances the importance of human capital creativity in long-term competitive advantage (Shalley et al., 2004). (2) Ethio Telecom has publicly committed to its ‘Next Horizon: Digital and Beyond 2028’ strategic plan, transforming into a technology-enabled enterprise that will be able to deploy 5G, artificial intelligence, and Internet of Things solutions, which requires creative employees, not just efficient ones. (3) The legacy of monopoly-era management culture may create unique boundary conditions for leadership effectiveness. (4) No peer-reviewed study has empirically explored the leadership–creativity relationship dynamic within the Ethio Telecom context, particularly since liberalization. The combination of these factors

makes Ethio Telecom highly appropriate and timely site to empirically study the leadership–creativity relationship.

1.3 Research Questions

To address the gaps described in the statement of the problem, this study was guided by the following research questions.

1. What is the relationship between transformational leadership and employee creativity in Ethio Telecom?
2. What are the mediating roles of psychological empowerment and psychological safety in the relationship between transformational leadership and employee creativity?
3. What is the moderating role of individual power distance orientation in the relationship between transformational leadership and both psychological empowerment and psychological safety?
4. Does individual power distance orientation moderate the indirect effects of transformational leadership on employee creativity through psychological empowerment and psychological safety?

1.4 Objectives of the Study

The researcher formulated the following research objectives based on the statement of the problem and research gap.

1.4.1 General Objective

This thesis aims to investigate the impact of transformational leadership on employee creativity at Ethio Telecom, with particular attention to the mediating effects of psychological empowerment and psychological safety, and the moderating effect of individual power distance orientation.

1.4.2 Specific Objectives

1. To investigate the effects of transformational leadership on employee creativity at Ethio Telecom.
2. To examine the mediating role of psychological empowerment and psychological safety in the relationship between transformational leadership and employee creativity at Ethio Telecom.
3. To assess the moderating role of power distance orientation in the relationship between transformational leadership and both psychological empowerment and psychological safety at Ethio Telecom.

4. To test whether power distance orientation moderates the indirect effects of transformational leadership on employee creativity via psychological empowerment and psychological safety.

1.5 Significance of the Study

From a theoretical perspective, this thesis contributes to the body of knowledge in leadership and creativity. Existing transformational leadership and creativity theory, mostly based in the West and Asia, has not yet been adequately tested empirically in emerging economies such as Ethiopia. Therefore, this thesis at Ethio Telecom contributes context-specific knowledge that enhances the external validity and cross-cultural generalizability of leadership and creativity models. On the practical side, the study provides actionable insights to management and Human Resource professionals at Ethio Telecom. As the business environment becomes increasingly competitive, particularly following reforms and market liberalization, Ethio Telecom should encourage human resources to drive creativity and innovation. The findings help Ethio Telecom executives and human resource managers to understand the roles of psychological empowerment and psychological safety in fostering employee creativity. It may also be used to guide leaders who wish to develop and implement leadership development programs consistent with employee responses.

1.6 Delimitation of the Study

Specifying the research area, population, or issue in a research project enables researchers to focus attention on the primary objective and facilitates efficient problem-solving while optimizing resource and time allocation (Creswell & Creswell, 2018). This research focused on Ethio Telecom, targeting employees across all functional departments of Ethio Telecom's head office in Addis Ababa, excluding field and regional staff. It was also limited to examining the constructs of transformational leadership, psychological empowerment, psychological safety, employee creativity, and individual power distance orientation using quantitative cross-sectional data collected from employees of Ethio Telecom.

1.7 Definition of Terms

Transformational Leadership: A leadership style characterized by four ‘‘I’’ dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1985). In this thesis, leaders at Ethio Telecom exhibit behaviors that inspire a shared vision, encourage innovative thinking, and provide individualized support and coaching to their telecommunications staff.

Employee Creativity: The production of novel, useful, and actionable ideas, processes, or solutions by employees concerning organizational products or services (Amabile, 1988). The degree to which employees at Ethio Telecom generate new and practical ideas for improving services, solving administrative problems, optimizing operational processes, and enhancing customer satisfaction.

Psychological Empowerment: An intrinsic task motivation consisting of four cognitive dimensions: meaning (value of work goal), competence (self-efficacy), self-determination (autonomy), and impact (influence on work outcomes) (Spreitzer, 1995). In this thesis, it refers to Ethio Telecom employees' sense of autonomy, competence, and meaningfulness regarding their daily tasks.

Psychological Safety: A shared belief that the work environment is safe for interpersonal risk-taking (Edmondson, 1999). The extent to which Ethio Telecom employees feel secure in proposing unconventional ideas, voicing concerns, or reporting errors to their managers and peers without fear of reprisal, ridicule, or damage to their career prospects.

Power Distance Orientation: The extent to which an individual accepts, expects, and endorses the unequal distribution of power and authority within an organization or society (Hofstede, 1980; Kirkman et al., 2009). In this study, it refers to individual Ethio Telecom employees' beliefs and attitudes regarding hierarchy and authority, which may alter how transformational leadership affects their psychological states and creativity.

1.8 Organization of the Study

The study contains five main chapters. Chapter One introduces the contextual background of the study, articulates the problem statement and research gaps, formulates the research questions and objectives, and delineates the scope and significance of the inquiry. Chapter Two provides a comprehensive review of the theoretical and empirical literature main constructs of study, culminating in the development of the conceptual framework and research hypotheses. Chapter Three details the research methodology, including the research design, population and sampling strategy, measurement instruments, data collection procedures, and analytical techniques employed. Chapter Four is about the data analysis and empirical results, covering both the measurement model evaluation and the structural model hypothesis testing, as well as a discussion of findings in relation to the existing body of knowledge. Chapter Five synthesizes the study's outcomes, presenting a summary of key findings, formal conclusions for each research question, theoretical and practical implications, study limitations, and recommendations for future research.

Chapter 2: Literature Review

2.1 Introduction

Chapter 2 covers both the theoretical and empirical perspectives of the constructs employed in this research. Based on the review of both perspectives, this chapter formulates a conceptual framework and hypotheses to guide the empirical analysis.

2.2 Transformational Leadership Theory (TL)

Transformational leadership was introduced by Burns (1978) and further expanded by Bass (1985) as Full Range Leadership Theory. Initial studies by Burns (1978) differentiated between transformational and transactional leadership, and Bass (1985) added a third style, laissez-faire. Transformational leadership is the most extensively studied leadership style in leadership literature (Bass & Avolio, 2004). Over time, numerous definitions of transformational leadership have emerged, but Bass's (1985) definition of transformational leadership is widely endorsed. Bass (1985) defined it as a leadership approach that transforms followers, inspires them, builds trust, encourages their growth, admires their innovative ideas, and develops them. According to Limsila and Ogunlana (2008), transformational leaders inspire employees to develop innovative problem-solving skills and exceed expectations. It leads ordinary individuals to achieve extraordinary levels of performance (Rao, 2014). The transformational leadership style prioritizes future needs over short-term problems and opportunities. It holistically views intra- and extra-organizational factors (Saeed et al., 2014).

2.2.1 Four "I" Dimensions of Transformational Leadership

Bass (1985) and later Bass and Avolio (1994, 2004) suggested that transformational leadership includes four main behaviors. The four 'I's together describe how transformational leaders motivate followers to go well beyond expectations and achieve personal and professional development. All four ''I''s of the dimensions emphasize a distinct facet of the leader-follower relationship, shaping followers' emotions, cognition, and growth (Bass & Avolio, 1994; Bono & Judge, 2004; Yukl, 2013).

Table 1 *Dimensions of Transformational Leadership*

4'I's of Transformational Leadership			
Idealized Influence	Inspirational Motivation	Intellectual Stimulation	Individual Consideration
Role model, admired, trust Collective sense of mission Respect High ethical standards Walk the talk	Commitment to Vision Enthusiasm and optimism Clear communication Motivate and inspire	Encourage creativity and innovation Reframing old problems Thinking outside the box	Coaching and mentor Active listener Pay attention to individual growth Value diversity

Idealized Influence

Idealized influence describes behaviors that promote a charismatic image of a leader that make good models for the people who follow them. A transformational leader serves as an example or model, gaining admiration and respect from employees by being a good ethical person, having integrity and commitment (Bass, 1985; Bass & Avolio, 1994). This quality is exemplified by transformational leaders to their employees largely through their behavior and values (Podsakoff et al., 1990) rather than through domination and exertion of control or authority. Idealized influence is positively correlated with trust, organizational identification, and long-lasting commitment in followers (Nguni et al., 2006; Walumbwa et al., 2008).

Inspirational Motivation

Inspirational motivation refers to when a leader shares a clear vision and encourages employees to work toward ambitious goals (Bass & Riggio, 2006). Leaders who have the quality of inspirational motivation can communicate company goals clearly and build team spirit. Tims et al. (2011) stated that inspirational motivation is central to strengthening employee engagement in fast-paced and high-stress environments. Inspirational motivation gives employees a sense of purpose, which aligns them with organizational values and missions (Breevaart & Bakker, 2018).

Intellectual Stimulation

Intellectual stimulation is the extent to which a leader encourages employees to generate new ideas and think critically. It helps leaders focus on questioning basic assumptions, solving problems, and encouraging new ways of doing things (Bass & Avolio, 1994). Eisenbeiss et al. (2008) discovered that intellectual stimulation creates an environment that is conducive to

learning how to solve problems and adapt to new situations. Leaders who use the intellectual stimulation strategy in businesses facilitate continuous improvement and knowledge sharing (Reuvers et al., 2008).

Individualized Consideration

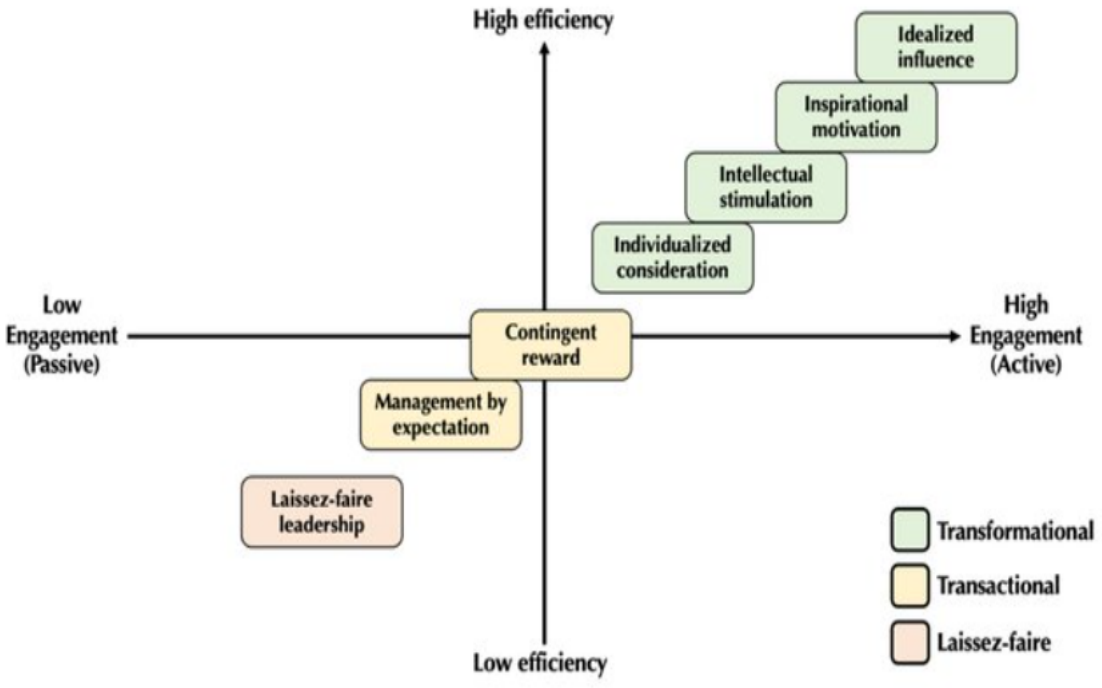
Individualized consideration is the extent to which leaders pay attention to the individual requirements of their employees and provide them advice and feedback that is personalized to help them succeed and improve in their jobs as coaches or mentors (Bass, 1985). Over time, coworkers and subordinates are empowered to see their full potential. Rafferty and Griffin (2004) found that workers are more satisfied and more loyal to their jobs when they feel that they are valued. Zheng et al. (2023) found that individualized consideration significantly boosted both incremental and radical creativity among middle managers.

2.2.2 Theoretical Model of Transformational Leadership

A. Bass & Avolio's Full Range Leadership Model (FRLM)

In the context of organizational leadership, the Full Range Leadership Model offers a comprehensive framework that encompasses transformational, transactional, and laissez-faire leadership styles (Bass & Avolio, 2002). It is a useful model to analyze leadership behaviors.

Figure 1 *Full Range Leadership Model*



Note. *Full Range Leadership Model* by Bass & Avolio, 2002

The full range leadership model **(**FRLM) describes a range of leadership philosophies from the ineffective leader to the extremely effective leader and from the passive to the deeply engaged leader. Transformational leadership is one of the leadership styles in this model. It has emphasized inspiring and motivating followers to contribute towards common goals. Transformational leaders are considerate of followers and help people realize their potential (Burns, 1978). This style primarily focuses on improving personal relations between leaders and followers to increase motivation and morale (Bass & Avolio, 1994). At the heart of this form of leadership, according to Burns (1978), is a focus on increasing ethical behavior and morality among employees of the organization. To fully understand this positive leadership style, it is often conceptualized within the leadership model, which contrasts transformational behaviors with transactional and laissez-faire leadership approaches.

Table 2 *Summary of Full Range Leadership Model*

Style	Behavior Focus	Effectiveness
Transformational	Motivation and development	High
Transactional	Performance and compliance	Moderate
Laissez-Faire	Avoidance and inaction	Low

B. Podsakoff et al. (1990) Model

The Podsakoff model is conceptually similar to the original Bass (1985) model. It is noted as the most widely used transformational-transactional leadership model (Bass & Riggio, 2006). This model includes transformational and transactional leadership aspects. The transformational leadership behaviors identified in this model are:

1. Vision identification and articulation: Searching for new opportunities, imagining a direction; inspiring others, and obtaining backing for the mission.
2. Modelling appropriate behavior: Leading by example, not commands, and being a good role model.
3. Facilitating the acceptance of group goals: Developing a cooperative atmosphere among members of the team by guiding everyone towards achieving goals, aligning all goals, and promoting camaraderie among workers.
4. Setting high performance expectations: Setting big goals but being very transparent as to what constitutes the high standards of performance and ensuring continues improvement.

5. Individual support: Showing recognition of others' feelings and consider how they should be handled.
6. Encouraging intellectual stimulation: Inspiring followers to adopt novel ways of looking at and rethink established problems or come up with alternative modes of dealing with traditional challenges.

This behavioral framework clearly links leadership practices to psychological empowerment.

2.3 Employee Creativity (EC)

2.3.1 Definition and Concept of Employee Creativity

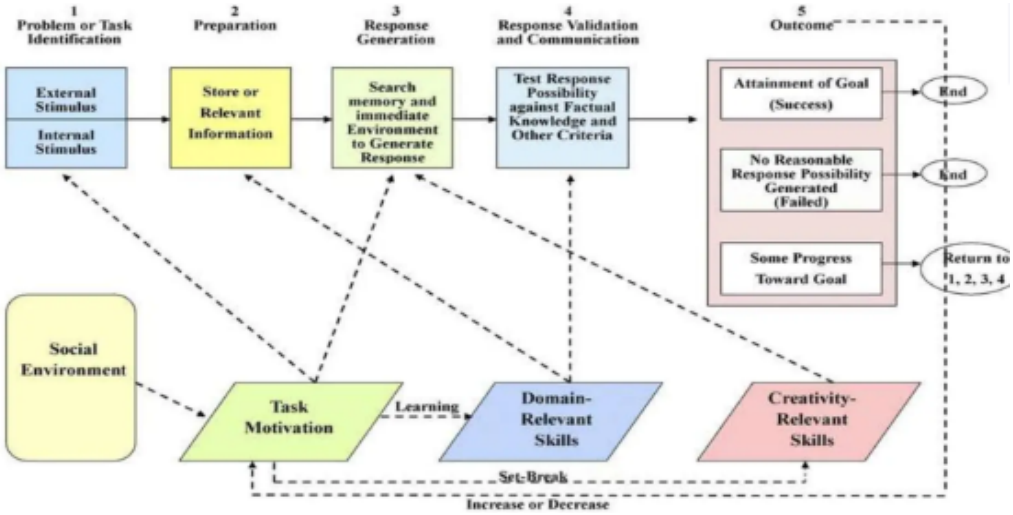
Amabile (1996) defines employee creativity as a generation of original and useful ideas. This definition indicates the role of creativity in innovation and addressing problems in a dynamic work environment. Creativity has been acknowledged for its importance over the years as a crucial aspect of human intelligence (Boden, 1998). Creativity is an everyday cognitive ability influenced by motivation, emotion, and cultural context (Boden, 1998). Woodman et al. (1993) claimed that creativity is one of the most important components of human capital. Human capital is as the primarily ability to create novel and useful ideas consistent with organizational goals. The idea of creativity results in better products, services, procedures, and processes. According to Zhou and Hoever (2014), both novelty and usefulness are important elements of creativity and go hand in hand with new ideas. Employee creativity research has its intellectual roots mainly in psychology. Rapid technological change, global competition, economic uncertainty, and consumer behavior forced organizations to focus on creativity and innovation to keep pace.

2.3.2 Theoretical Foundations and Models of Creativity

A. Componential theory of Creativity (Amabile, 1983, 1996, and 2012)

Teresa Amabile's Componential Theory of Creativity is among the most powerful and often referenced ideas in creativity research, particularly in psychological and organizational settings. In 1983, Amabile proposed one of the first detailed componential models of creativity, which includes task motivation, domain-relevant skills, and creativity-relevant processes. Amabile updated her model in 1996, adding the fourth component of creativity called social environment.

Figure 2 *Five-Stage Componential Model of Creativity*



Note. *Five-stage Componential Model* by Amabile,1996

According to Amabile's Componential Model (1996), creativity is not an instantaneous event, but a process driven by the interaction of three key elements: 'task motivation, domain-relevant skills, and creativity-relevant process'. As illustrated in Figure 3, the process unfolds through several operational stages. While presented sequentially, Amabile notes that these stages are dynamic and do not necessarily follow a rigid linear order. These stages are:

- Identification of the task or problem
- Preparation (gathering relevant information)
- Response generation (seeking and producing potential responses)
- Response validation and communication (testing the possible response)
- Outcome evaluation (assessing success, failure or progress towards the goal).

Amabile and Pratt (2012) revisited basic assumptions of the 1996 model and modified certain causal connections as clearly indicated in Table 3.

Table 3 *The Dynamic Componential Model Compared to the Models of 1983 and 1996*

Aspects	1983 Model	1996 Model	2012 Model (Amabile & Pratt)
Components	Domain-relevant skills, creativity-relevant processes, and intrinsic motivation	The social environment was added as a 4th component	Keeps everything, but integrates them into a dynamic system
Focus	Individual Creativity within an organization	Incorporates organizational innovation	Combines a dynamic and systemic perspective with both creativity and innovation

View of creativity	Model based on static trait	Includes both individual and environmental factors	A dynamic, evolving process with feedback loops
Emotion (affect) role	Not included	Not included	Explains how motivation and creativity are affected by affective states (emotions, moods)
Temporal dynamics	One-time process	A slightly more sensitive context.	Time is explicitly highlighted, demonstrating how motivation, work environment, and creativity evolved
Feedback & outcomes	No feedback loop	Slight consideration of outcomes	Adds feedback loops
Leadership influence	Implicit	Acknowledged (support, autonomy)	Seen as a driver of affective and motivational states, directly shaping creative outcomes
Organizational fit	Limited	Broader organizational relevance	Strong organizational applicability (links to culture, climate, leadership, HR)

The evolution of Componential Theory shows a transition away from an individual, static perspective and toward a dynamic, interactionist perspective as described in the above Table 3. This evolution underpins the understanding of creativity that is essential in complex organizations like Ethio Telecom. The Dynamic Componential Model is the best theoretical lens for this study for two main reasons. First, it clearly shifts the role of leadership from an implicit factor to a crucial driver that directly shapes employees' internal states. Second, the model introduces affect (emotion) and intrinsic motivation as a driving force of the creative process. This distinction is crucial for the proposed parallel mediation model, as it suggests that leadership does not influence creativity through a single path, but rather through dual psychological processes.

B. Interactionist Perspective of Creativity (Woodman et al., 1993)

Woodman et al. (1993) have proposed the model of creativity from an interactionist point of view. Creative activity is a result of the interaction between an individual and a situation (Woodman et al., 1993). The model identified three major aspects:

1. Antecedent conditions: The conditions that already exist but shape the person's present situation, their interaction.

2. Personal characteristics: Both cognitive abilities and styles (e.g., divergent cognitive skills and field independence and dependence) and personality traits or factors (e.g., attitudes, values, motivations).

3. Situational characteristics: These include social influences (such as role models, rewards, and social evaluation), as well as contextual factors (such as the physical environment, organizational climate, and culture).

2.3.3 Antecedents of Employee Creativity

Woodman et al. (1993) pointed out that individual, group and organizational factors interact to create a creative environment. Shalley et al. (2004) identified that individual creativity is characterized by four interdependent components: individual, leader, work group and climate for creativity. Leadership that actively encourages and supports employees is key to creativity. Leaders need to ensure that creativity is flourishing in the workplace and that the climate and culture, and human resources practices are in place (Mumford, 2000; Mumford et al., 2002). A reference to recent peer-reviewed studies and theories (e.g., He et al. (2020), Gong et al. (2023), Farid et al. (2023), Wang et al. (2021), Newman et al. (2020), Zhao et al. (2023) and Perry-Smith & Shalley (2003)), this study compiled an overview of creative antecedents in Table 4, detailing individual, job-related, leadership, team, and organizational-level elements.

Table 4 *Overview of Employee Creativity Antecedents*

Category	Key antecedents	Description: Why it matters
Individual factors	Creative self-efficacy, Intrinsic motivation, Grit Emotional intelligence	Confidence in creative ability, internal drive, and persistence

Organizational Factors	Perceived organizational support Innovative climate Knowledge sharing Psychological safety	A safe, collaborative team climate enhances idea exchange and learning. Even motivated employees are not creative if they face fear of failure, rigid rules, and a lack of resources
Leadership Factors	Transformational Leadership Servant Leadership Empowering leadership	Enhance trust, voice, and psychological safety, which are vital for creativity. Poor leadership suppresses creativity
Job-related factors	Autonomy Task complexity Role clarity Job feedback	Freedom in task execution, diverse/challenging work, and adequate resources.
Psychological factors	Psychological empowerment Intrinsic motivation Person-organizational fit	Empowered employees feel responsible and motivated to think creatively, and inner beliefs and emotional regulation strongly influence creativity

As perceived work environments influence employee creativity (Amabile, 1996; Woodman et al., 1993). Leadership defines the workplace (Shalley & Gilson, 2023; Tierney, 2008) and one of the major contextual factors that impact employee creativity. According to researchers, leaders drive employee creativity not only through the enhancement of their psychological states (Shin & Zhou, 2003; Tierney, 2008; Zhang & Bartol, 2010), but also through social contexts of the creative process, such as problem identification, information gathering, and idea generation, evaluation, and modification (Amabile, 1996). This provides the theoretical foundation for assessing transformational leadership dynamics in the current research.

2.4 Psychological Empowerment (PE)

2.4.1 Definition and Concept of Psychological Empowerment

The literature on empowerment offers many definitions, usually grouped into two main categories: social-structural and psychological empowerment perspectives (Kanter, 1977; Spreitzer, 1995). The social-structural perspectives see empowerment as a set of organizational structures, policies, and practices that share authority and power throughout the organization

(Kanter, 1983). This includes practices such as open information sharing, decentralization, participatory decision-making, training, and performance-based rewards. On the other hand, psychological empowerment refers to the mental state or beliefs employees have about their work. Conger and Kanungo (1988) state that psychological empowerment increases employees' self-efficacy by removing obstacles to power and providing feedback through formal and informal methods. Thomas and Velthouse (1990) further developed this concept and considered psychological empowerment as a multidimensional construct, identifying four important task-related factors that drive motivation: meaningfulness, competence, choice, and impact. Spreitzer (1995) further refined and developed a measure of psychological empowerment, describing it as a motivational concept comprising meaning, competence, self-determination, and impact.

2.4.2 Key Theories and Models of Psychological Empowerment

To understand and address psychological empowerment within Ethio Telecom, it is necessary to review the foundational models that clarify its nature and dimensions.

A. Empowerment According to Conger and Kanungo (1988)

Conger and Kanungo (1988) were the first scholars to conceptualize psychological empowerment as a motivational construct of self-efficacy. Conger and Kanungo (1988) stated that empowerment is more than giving people authority or decision-making power; it also encourages employees to be more capable and confident in the workplace. It leads to the initiation and maintenance of behaviors to accomplish the objectives of a particular task (Conger & Kanungo, 1988).

B. Empowerment According to Thomas and Velthouse (1990)

Thomas and Velthouse (1990) argued that empowerment is a multifaceted concept that cannot be adequately captured by a singular construct such as self-efficacy. Empowerment is characterized as a collection of cognitive processes that cultivate an active approach to one's job responsibilities (Thomas & Velthouse, 1990). The four psychological conditions identified in Thomas & Velthouse's (1990) framework are impact, competence, meaningfulness, and choice. They further argued that these empowerment conditions are influenced by environmental events (leadership actions, reward systems, organizational structures), task assessments (employee skills, autonomy), global assessments (self-esteem), interpretive styles, behaviors, and interventions. The four cognitive aspects of empowerment describe employees' intrinsic job motivation and provide the foundation for understanding how empowerment works in organizational contexts, particularly in terms of leadership and creativity (Thomas & Velthouse, 1990). The four cognitive dimensions of empowerment are summarized in Table 5.

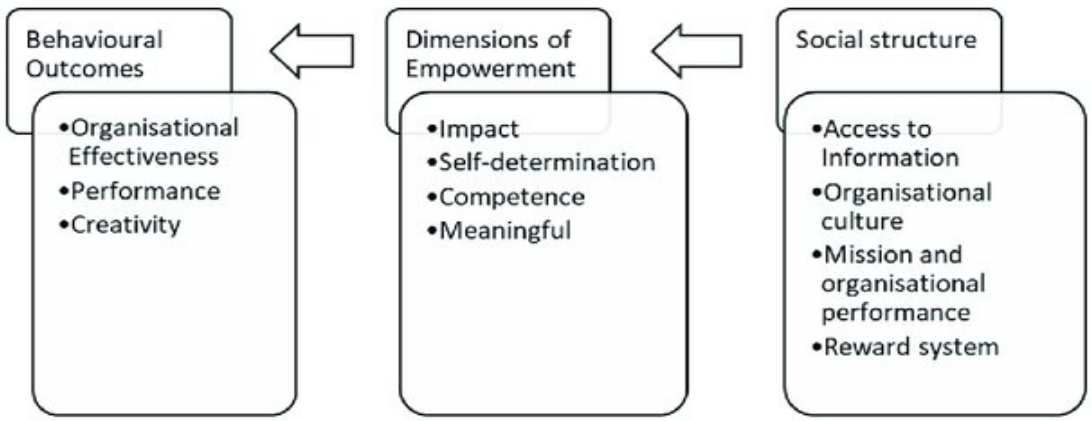
Table 5 *Four Cognitive Dimensions of Empowerment (Thomas & Velthouse,1990)*

Dimension	Concept
Meaningfulness	Alignment between task requirements and personal beliefs Care for the task
Competence	Belief in the capacity to perform work Assurance of ability to succeed when effort is applied
Choice	Freedom to determine work method and pace Self-determination in initiating and regulating tasks
Impact	The extent to which one can affect strategic or operational outcomes An ability to effect change

C. Spreitzer's Model of Psychological Empowerment (1995)

Spreitzer (1995) developed a multidimensional framework of psychological empowerment, based on Thomas and Velthouse's (1990) fundamental model, which comprises four key components: meaning, competence, self-determination, and influence. Together, these four dimensions form the construct of psychological empowerment. The absence of any one dimension reduces the impact of empowerment, but it does not totally eradicate it (Spreitzer, 1995).

Figure 3 *Spreitzer's Empowerment Model*



Note. From *the Psychological Empowerment in the Workplace*, by Spreitzer, 1995

As illustrated in Figure 4, Spreitzer's model proposes a mediational relationship that matches the design of this study:

1. Social Structure (Antecedents): most relevant to this thesis - leadership support.
2. Dimensions of Empowerment (Mediators): Meaning, Competence, Self-determination, and Impact - employee's internal reaction.

3. Behavioral Outcomes: Outcome employee behaviors - innovation and creativity.

D. Empowerment by Menon (1999)

According to the views of Menon (1999), empowerment is a cognitive state defined by perceived control, competence, and internalization of goals. While drawing on earlier theories of empowerment (Thomas & Velthouse, 1990; Spreitzer, 1995), Menon's (1999) study extends this line of research and proposes a more elaborated and empirically tested model. Menon laid down the three core elements in psychological empowerment, which are:

- Perceived control: refers to an individual's belief that they have authority, availability of resources, decision-making freedom, autonomy in scheduling work, and performance of work. This dimension corresponds to the concepts of choice and self-determination as outlined by Thomas and Velthouse (1990) and Spreitzer (1995), respectively.
- Perceived competence: denotes confidence in one's abilities to meet work performance standards or situational demands successfully. This dimension shows the extent of effective role mastery, both in routine tasks and the handling of non-routine responsibilities.
- Goal internalization: defined as feelings in which employees embrace and feel personally aligned with organizational goals.

2.5 Psychological Safety (PS)

2.5.1 The Concept of Psychological Safety

The team-level operationalization of psychological safety was advanced by Edmondson (1999), who built upon earlier work by Kahn (1990) and Schein and Bennis (1965). This term describes a perceived environment of security that enables people to take interpersonal risks, such as expressing their views, challenging the status quo, or disclosing uncertainties, without fear of criticism or retaliation (Edmondson, 1999). It is highly relevant in workplace contexts and is considered the most important part of encouraging creativity, teamwork, and superior performance (Edmondson, 2018). Psychological safety is often seen as an imperative of invention and creativity because of a culture that allows an individual to feel valued and believed in, and to be willing to contribute original ideas in any environment without concern about negative consequences, for example, embarrassment, retaliation, or shame (Edmondson, 1999; Kahn, 1990). However, to create a safe psychological environment, organizations need to develop a cognitive model of learning and flexibility (Edmondson, 1999). Kahn (1990) has argued that people must feel psychologically safe to be emotionally invested in and productive in their duties. In environments where psychological safety is high, people are free to express

opposing opinions, take initiative, and make mistakes without fear of ridicule or punishment (Edmondson, 2004). Studies identified that psychological safety can significantly enhance creativity and innovation (Carmeli et al., 2010).

2.5.2 Foundational Theories of Psychological Safety

The following theories trace the historical development of psychological safety and establish its definitional framework.

Schein and Bennis's Theory: Schein and Bennis (1965) first introduced psychological safety to the business vocabulary, to explain how businesses evolve, learn, and survive. When people are asked to abandon the familiar to try something new, they experience "learning anxiety": the fear of looking incompetent, failing, being punished for mistakes or losing their status in the organization (Schein & Bennis, 1965). Schein and Bennis (1965) claimed that to overcome this learning anxiety, the organization must provide a powerful counterforce: a safe environment where the fear of trying something new is lower than the fear of remaining stagnant. For an organization to learn, it must create conditions where interpersonal risk-taking is safe.

Kahn's Theory: While Schein and Bennis focused on macro-organizational change, Kahn (1990) brought the concept down to the individual level. Kahn (1990) identified three psychological conditions necessary that employees ask themselves three unconscious questions before deciding to engage. If the answer to all three is "yes," they engage. If any are "no," they withdraw: meaningfulness, availability, and safety (Kahn ,1990). He provided the first formal definition of psychological safety as feeling able to show and employ oneself without fear of negative consequences to self-image, status, or career.

Edmondson's Theory: This theory gives a general description of psychological safety as an environment where people feel safe to share their true ideas and be themselves. When the work environment has reasonably high psychological safety, positive outcomes emerge; errors are reported quickly, corrective actions are taken immediately, teams work in proximity, and new, innovative ideas can be exchanged freely **(**Edmondson,1999).

2.5.3 Theoretical Mechanisms Connecting Leadership and Psychological Safety

The following theories clarify mechanisms through which transformational leadership fosters psychological safety and why it matters in the relationship between transformational leadership and employee creativity.

Social Learning Theory (SLT): Proposed by Albert Bandura in 1977, this theory posits that people learn behaviors, emotional reactions, and attitudes by observing others. It moves beyond simple "trial and error" by suggesting individuals learn through modeling. Social Learning Theory explains that people are constantly scanning our environment to see what behaviors are

rewarded or punished. Psychological safety dictates what that scan reveals (Bandura, 1977). The author further argues that without safety, the social learning process becomes a mechanism for conformity rather than creativity. Employees are always learning from watching their leaders. The question is whether their environment (in terms of psychological safety) is teaching them to be innovative and brave, or secretive and fearful.

Social Exchange Theory (SET): Developed mainly by Peter Blau in 1964, this theory posits that individuals engage in social interactions through exchange process. It holds that the relationship between leaders and employees is essentially reciprocal. When leaders provide socio-emotional resources, such as inclusivity, trust, and support, employees feel a sense of reciprocal obligation to return the effort. This reciprocal relationship is crucial for creativity; a leader who fosters psychological safety, as it also minimizes the interpersonal risks associated with failure (e.g., interpersonal costs, the emotional fallout of failures). Creating an environment that safely allows people to crucial for reaching organizational goals. Employees, therefore, reciprocate by engaging in creative projects and contributing innovative ideas to the organization (Blau, 1964).

2.6 The Contingency Factor: Individual Power Distance Orientation

Power distance has been conceptualized as a dimension of national culture in Hofstede's (1980) framework of cultural consequences. Power distance is the degree to which individuals perceive and accept unequal power relationships within organizational or societal hierarchies (Kirkman et al., 2009). The term individual power distance orientation refers to power distance at the individual level, whereas power distance represents a national cultural value (Hofstede, 1980, 2001; Clugston et al., 2000). While national indices provide a broad cultural baseline, individual power distance orientation captures the degree to which an employee personally accepts unequal power distribution within the organizational context (Earley, 1999; Kirkman et al., 2006).

Individuals with a high-power distance orientation perceive hierarchy as natural and desirable, are more willing to defer to authority, and tend not to question supervisor decisions (Hofstede, 2001; Carl, Gupta, & Javidan, 2004; Daniels & Greguras, 2014). Conversely, employees exhibiting a low power distance orientation typically endorse egalitarian principles, anticipate shared authority, and seek involvement in decision-making processes while desiring a voice in their interactions with leaders (Hofstede, 2001; Lam, Schaubroeck, & Aryee, 2002; Farh, Hackett, & Liang, 2007; Kirkman et al., 2009).

2.7 Interconnection of Constructs and Hypotheses Formulation

The author considers the relationships between 5 major constructs in this thesis to develop conceptual framework and hypotheses, as well as moderated mediation, respectively. The paper comprises eight separate hypotheses that are justified through theory and recent empirical evidence.

2.7.1 Transformational Leadership and Employee Creativity

A justification for the theory of direct effect comes through Bass and Avolio's leadership theory. According to Bass and Avolio's leadership theory, transformational leadership is visionary, novel and development oriented. In Amabile's componential approach to creativity, skills interact with processes, task motivation, and the social environment. A recent study by Nguyen et al. (2022) found that transformational leadership had a major effect on employee creativity in the Vietnamese telecommunication industry with intrinsic motivation as the mediator whereas Alshawabkeh et al. (2024) showed the opposite conclusion. According to Hanaysha (2022) transformational leadership has a direct role in creativity in Malaysian higher education. Therefore, this study hypothesizes that:

H1: Transformational leadership is positively related to employee creativity.

2.7.2 Transformational Leadership and Psychological Empowerment

Transformational leaders connect the organization to the individual. By providing structural access (Kanter, 1983), transformational leadership ignites cognitive dimensions of psychological empowerment identified by Spreitzer (1995). According to Bass (1985) and other theories that follow, the four ''I'' dimensions of transformational leadership collectively induce a psychologically empowering environment. Research in various industries indicates that there is a strong correlation between leadership styles and employee mindset. Alshawabkeh et al. (2024) and Ibrahim et al. (2023) found positive relationship of transformational leadership with empowerment in customer service and hospital, respectively. Therefore, this study hypothesizes that:

H2: Transformational leadership is positively related to psychological empowerment

2.7.3 Transformational Leadership and Psychological Safety

Transformational leadership theory (Bass and Avolio, 1994) and psychological safety theory (Edmondson, 1999), social exchange theory (Blau, 1964) and social learning theory (Bandura, 1977) suggest that leadership activities enhance a climate of trust and interpersonal safety. At the same time, idealized influence, which creates trust and respect, inspirational motivation (e.g., expressing high expectations), and intellectual stimulation to challenge oneself and

others' expectations all come from this. Because individuals will respond to their leaders' sincerity and attentiveness; therefore, personalized consideration is initiated on an individual level. Baer & Frese (2003) and Edmondson (2004) serve as evidence that leadership can alter an organization's personal narrative. Carmeli et al. (2014) found from longitudinal research that Transformational leadership significantly related with psychological safety. Similarly, Sobaih et al. (2022) found that transformational leadership is significantly positively related to psychological safety during the pandemic in turnover intention. Therefore, this study hypothesizes that:

H3: Transformational leadership is positively related to psychological safety.

2.7.4 Psychological Empowerment and Employee Creativity

Spreitzer's model (1995) describes four conditions; Amabile's (1983) theory provides motivational power. An employee who finds their work enjoyable (meaning), is competent to do it (competence), feels autonomous about the way they do the work (self-determination), and has an attachment to a sense of meaningful impact is the intrinsic motivation state, potentially the strongest predictor of creative process engagement in theory. In other words, psychological empowerment raises employee's intrinsic motivation, which in turn drives creativity. Zhang and Bartol (2010) presented that higher empowerment was associated with greater engagement in creative processes. Creative processes are problem identification, information seeking, and idea generation. Nguyen et al. (2023) did identify a significant impact of empowerment on employee creativity among telecommunication company's employees. Therefore, this study hypothesizes that:

H4: Psychological empowerment is positively related to employee creativity.

2.7.5 Psychological Safety and Employee Creativity

Psychological safety and creativity are derived from the allocation of cognitive resources and the mitigation of interpersonal risk. Creativity involves interpersonal risk-taking (Edmondson, 1999) because proposing new ideas means deviating from the status quo and risking perceptions of being disruptive, ignorant, or incompetent. Kahn (1990) suggests that psychological safety is a prerequisite for 'personal engagement'. Importantly, psychological safety reduces fear, which enables risk-taking and experimentation, ultimately yields creativity. Jin & Peng (2024) reviewed more than 40 cases in China, and they reported that psychological safety positively affected individual innovation. Similarly, Sobaih et al. (2022) have found that hotel staff were more creative when hotels engaged them and when they were psychologically secure and felt more committed to their work. Therefore, this study hypothesizes that:

H5: Psychological safety is positively related to employee creativity.

2.7.6 Mediating Role of Psychological Empowerment and Safety

A. **Mediating Role of Psychological Empowerment (PE)**

Psychological empowerment is an internal stimulator that translates leaders' behaviors to drive the creative process through its four cognitive dimensions (Amabile & Pratt, 2016). Zhang and Bartol (2015) introduced a cross-level integrative model in which psychological empowerment is the central mediator between leadership and employee outcomes. This mediation approach is supported by an increasing amount of empirical evidence. In recent study, psychological empowerment mediated transformational leadership and creativity relationship in the Vietnamese telecommunications sector (Nguyen et al., 2022) and in Malaysian customer service industry (Alshawabkeh et al., 2024). Therefore, this study hypothesizes that:

H6a: Psychological empowerment mediates the relationship between transformational leadership and employee creativity.

B. Mediating Role of Psychological Safety (PS)

Psychological empowerment is the internal fuel for creativity (Spreitzer, 1995), and psychological safety is the external situation that makes that fuel burn (Edmondson, 1999). Even when staff feel very empowered, their capacity for innovation is often undermined when they work in a culture that explicitly punishes mistakes or disagreement (Baer & Frese, 2003). Study by Carmeli et al. (2014) suggested that leadership has no direct link with creative problem-solving. First, leaders had to create a sense of safety and security in their teams, allowing for the reflexivity necessary to generate creative results. Therefore, this study hypothesizes that:

H6b: Psychological safety mediates the relationship between transformational leadership and employee creativity.

2.7.7 The Moderating Role of Individual Power Distance Orientation (PDO)

Based on Hofstede's cultural values model, power distance reflects attitudes towards hierarchy and power in organizations. It is called power distance orientation on an individual basis which refers to the differing tolerances of different distributions of power (Kirkman et al., 2009).

A. Transformational Leadership, Power Distance Orientation and Psychological Empowerment

At its core transformational leaders strive to empower followers by flattening hierarchy, maximizing autonomy and soliciting input (Bass, 1985). According to Sagie & Aycan (2003), high power distance results in a misfit with enabling leadership behaviors. Employees may also be less accepting of autonomy or confidence in high-power distance orientation. This aligns with an empirical study by Bui et al. (2023), which, using data from 605 local government civil

servants, found that a high-power distance orientation of followers mitigates the positive effects of leadership on followers' motivation and job results. Xuan et al. (2025) found that the power distance lowers the impact of transformative leadership on employee motivation. Transformational leaders had a positive impact on employees who exhibited lower power distance than those with higher power distance values. Therefore, this study hypothesizes that:
H7a: Power distance orientation moderates the relationship between transformational leadership and psychological empowerment: such that the relationship is stronger when employee power distance orientation is low and weaker when it is high.

B. Transformational Leadership, Power Distance Orientation and Psychological Safety

Psychological safety permits people to act truthfully in their work and without fear of damaging their reputation or career prospects (Kahn, 1990). Transformational leaders contribute to this climate, but power distance orientation likely changes safety relationship with transformational leadership. This particular boundary condition is not directly tested in many studies. In his dissertation, Kang (2019) studied power distance orientation as a boundary condition. He did not show that power distance orientation affected the link between leadership and psychological safety. Gong et al. (2019) found that, depending on their degree of power distance orientation, it either improves or weakens the effect of ethical leadership on psychological safety. Therefore, this study hypothesizes that:
H7b: Power distance orientation moderates the relationship between transformational leadership and psychological safety: such that the relationship is stronger when employee power distance orientation is low and weaker when it is high.

2.7.8 Moderated Mediation Effect

The thesis proposes a moderated mediation model to test whether power distance orientation moderates the indirect relationship between transformational leadership and employee creativity through both psychological empowerment and safety. This paper demonstrates that transformational leadership promotes creativity through two psychological states. However, this transmission is not automatic. In this regard, the author argues that an indirect route to creativity (through psychological empowerment and psychological safety) is conditional. Employees with low or high-power distance orientation may have different reactions to psychological states provided by their leaders. Based on Kristof-Brown et al. (2005), this study predicts that the influence of transformational leadership on employee creativity depends on the level of person-supervisor fit. This is in agreement with recent findings of Koh et al. (2019) and Bui et al. (2023). Transformational leadership's capacity to drive creative performance is not guaranteed; it is dependent on the leader's behavior and the psychological state of the

employee. When leaders act as a facilitator of psychological sates, they bridge the gap between organizational power distance and enable more creative behavior to occur. Therefore, this study hypothesizes that:

H8a: Individual power distance orientation moderates the indirect relationship between transformational leadership and employee creativity through psychological empowerment: the positive indirect relationship becomes stronger when employee power distance orientation is low rather than high.

H8b: Individual power distance orientation moderates the indirect relationship between transformational leadership and employee creativity through psychological safety: the positive indirect relationship becomes stronger when employee power distance orientation is low rather than high.

2.8 Research Gaps

Based on past research, transformational leadership is strongly correlated with creativity. Transformational leaders can directly influence employee creativity, and indirectly influence it through empowerment (Simamora, 2021; Kasımoğlu & Ammari, 2020). Several other studies back this up, highlighting that psychological empowerment is the key pathway leaders use to spark creative thinking. In contrast, there is a debate regarding the direct impact of this leadership style (Alhosani & Ahmad, 2024; Alwaely et al., 2024). Transformational leadership does not directly influence creativity on its own (Alshawabkeh et al., 2024). Instead, they argue that it works entirely indirectly by fostering internal, psychological mediators. A meta-analysis by Koh et al., (2019) indicated that while transformational leadership has general positive effect on creativity at the immediate level, its effect even can be negative if mediators are involved.

While psychological empowerment represents the intrinsic motivation that motivates creativity internally, psychological safety provides an environment in which this is needed externally. Employees are therefore free to take interpersonal risks without fear of negative consequences (Edmondson,1999). Transformational leadership improves creativity at the organization through employee agility, and psychological safety reinforces this indirect effect (Siddiq et al., 2023). Carmeli et al. (2014) and Jin & Peng (2024) referred to psychological safety as a key channel through which leadership promotes employees' independence and innovative problem-solving skills. Moreover, recent research suggests that psychological safety fosters the facilitating environment for idea exchange that promotes innovation among workers, a key factor in hierarchical workplaces (Imran & Muhammad, 2025). Psychological safety positively

affects creativity also by reducing interpersonal risks, and a safe climate can enhance psychological empowerment (Han et al., 2022).

The influence of power distance orientation as moderation has attracted limited focus in the literature. High power distance orientation reduces positive effects of leadership on employee motivation and job results (Bui et al., 2023). In terms of safety, power distance did not influence the leadership-psychological safety relationship as Kang (2019) reported. While power distance negatively affects the generation of innovative ideas, it can promote the implementation of those ideas once they are established (Luo et al., 2020).

Based on the review of the literature, the following gaps have been found to justify the need for this study: first, a theoretical gap (no parallel mediation model tested with both psychological empowerment and psychological safety simultaneously in telecom/Ethiopia); second, a methodological gap (no PLS-SEM moderated mediation in Ethiopian context); and third, a contextual gap.

2.9 Summary of Theoretical and Empirical Literature: Mapping the Conceptual Model

The preceding sections have reviewed the theoretical and empirical literature on transformational leadership, employee creativity, psychological empowerment, psychological safety, and individual power distance orientation. This concluding synthesis integrates those bodies of knowledge to establish a coherent theoretical rationale for each path in the proposed moderated mediation model and to demonstrate how the identified research gaps motivate the specific configuration of the conceptual framework. Table 6 below consolidates the theoretical mapping across all model paths, summarizing the primary theoretical grounding, supporting empirical evidence, and corresponding hypothesis for each relationship in the conceptual framework.

Table 6 *Theoretical Mapping of Model Paths*

Hypotheses	Model Paths	Theoretical Groundings	Empirical Support	Effect
H1	TL → EC (direct)	Bass & Avolio FRLM (1985, 2004); Amabile Componential Theory (1996)	Nguyen et al. (2022); Hanaysha (2022)	+
H2	TL → PE (Path p_1 mediation)	Spreitzer (1995); Kanter (1983); Bass &	Alshawabkeh et al. (2024); Ibrahim et al.	+

		Avolio (1994, 2024) , 4I dimensions	(2023); Nguyen et al. (2022)	
H3	TL → PS (Path p_1 mediation)	Edmondson (1999); Social Exchange Theory (Blau, 1964); Social Learning Theory (Bandura, 1977)	Carmeli et al. (2014); Sobaih et al. (2022)	+
H4	PE → EC (Path p_2 mediation)	Amabile (1996); Spreitzer (1995); Thomas & Velthouse (1990); Zhang & Bartol (2015)	Zhang & Bartol (2015); Nguyen et al. (2023)	+
H5	PS → EC (Path p_2 mediation)	Edmondson (1999); Kahn (1990), dual-channel logic	Jin & Peng (2024); Alhosani & Ahmad (2024)	+
H6a/6b	TL → PE/PS → EC (parallel mediation)	Amabile (1996); Amabile & Pratt (2012) dual channel; Zhang & Bartol (2015)	Nguyen et al. (2022); Carmeli et al. (2014)	+
H7a/7b	PDO × TL → PE/PS (1^{st}-stage moderation)	Hofstede (1980); Dorfman & Howell (1988); Sagie & Aycan (2003)	Bui et al. (2023); Xuan et al. (2025); Kang (2019); Gong et al. (2019)	−
H8a/8b	Moderated mediation: PDO conditions indirect TL → EC paths	Person–environment fit (Kristof-Brown et al., 2005); Hofstede cultural values framework	Bui et al. (2023); Koh et al. (2019)	Conditional

Note. TL = Transformational Leadership; EC = Employee Creativity; PE = Psychological Empowerment; PS = Psychological Safety; PDO = Power Distance Orientation. Effect direction for H7a/7b is negative in the sense that high PDO attenuates (weakens) the positive leadership–psychological state relationship.

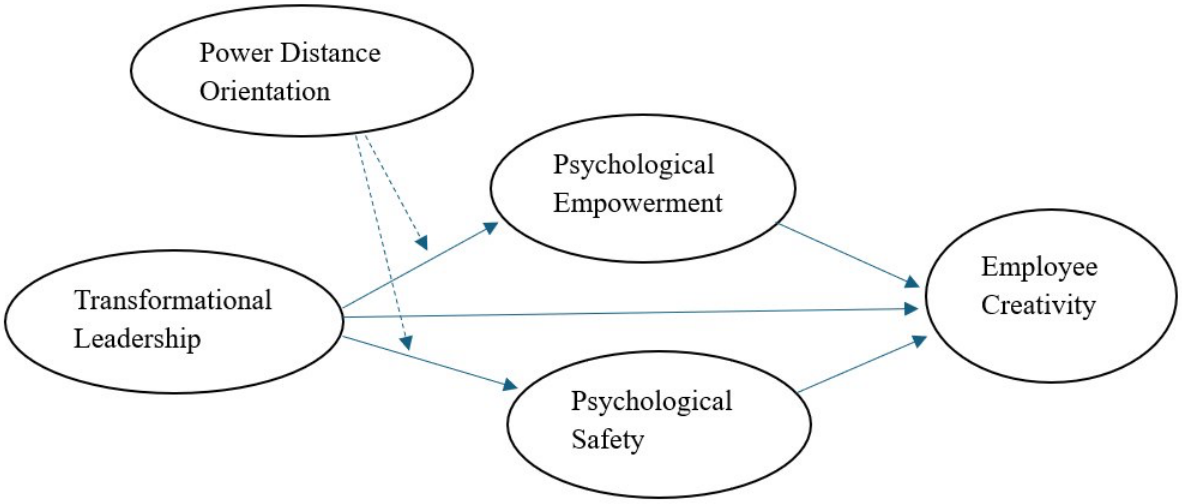
Taken together, Table 6 demonstrates that the proposed conceptual model is not an ad hoc arrangement of constructs but a theoretically integrated system in which each path is independently grounded in established theory and corroborated by empirical evidence. The model advances the literature by combining two rarely co-tested mediators in a parallel design, introducing a culturally sensitive moderator that is particularly relevant to the Ethiopian organizational context, and testing the entire configuration within Ethio Telecom, where the intersection of hierarchy, innovation pressure, and workforce diversity makes the proposed dynamics especially consequential. The conceptual framework presented in the following section provides the visual representation of these theoretical relationships.

2.10 Conceptual Framework of Study

According to Miles and Huberman (1994) and Ravitch and Riggan (2012), a conceptual framework is defined as structured concepts and theories used to identify key variables and show their relationships in a study. This thesis relies on well-established theoretical frameworks that examine the relationship between transformational leadership and employee creativity, wherein psychological empowerment and psychological safety serve as the central processes, and individual power distance orientation as a contextual factor.

Bass and Avolio's (2004) transformational leadership model can be employed to illustrate how leadership behaviors such as idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration facilitate employees to engage in creative behavior. The motivation behind this relationship also comes from Spreitzer's (1995) psychological empowerment model, which includes empowerment as a 'higher-order construct' comprising meaning, competence, self-determination, and impact. Along with empowerment, Edmondson's (1999) idea of psychological safety shows that a creative work environment depends on employees feeling safe to take interpersonal risks. Amabile's Componential Theory of Creativity model (Amabile, 1996; Amabile & Pratt, 2012) is used to connect leadership actions and psychological factors to creative outcomes of employees. Finally, the model includes individual power distance orientation (Hofstede, 1980) as a moderating variable, suggesting that differences in hierarchical beliefs may affect employees' interpretations and reactions to transformational leadership.

Figure 4 *Conceptual Framework of the Study*



Note. Adapted from Koh et al. (2019) and Alshawabkeh et al. (2024)

The model is structured specifically as a first-stage moderated mediation because individual power distance orientation fundamentally governs leader-follower dynamics, not internal cognitive processes. According to Kirkman et al. (2009), power distance acts as a cultural boundary condition dictating how subordinates interpret and respond to authority figures. Therefore, its theoretical relevance is strictly isolated to the first stage of the model. Once these internal psychological states are successfully activated by the leader, the subsequent translation of those states into creative output relies on the employee's intrinsic cognition.

Chapter Three: Research Methodology

3.1 Introduction

This chapter of the thesis serves as a strategic roadmap for validating research objectives and finding credible answers to the core inquiries at Ethio Telecom (Kothari, 2004). As noted by Creswell and Creswell (2018), this is the phase in which researchers must evaluate whether their methods are appropriate for solving the intended problem. The chapter outlines the research design, population, sampling strategies, data collection techniques, data sources, data collection instruments, data analysis techniques, and ethical issues.

3.2 Research Design

Selecting the appropriate research design is important part of research as it balances the nature of the research problem, the state of knowledge on the research problem, and the resources of the research methodology available to the researcher (Kothari, 2004; Saunders et al., 2019). This thesis is classified along two independent dimensions of research design. With respect to purpose, this study is an explanatory: to examine and test the causal mechanisms (in other words, the mediated and moderated ways in which transformational leadership affects employee creativity). This purpose categorization accords with Saunders et al.'s (2019) research onion framework, which systematically distinguishes explanatory research-concerned with establishing causal or associative relationships among theoretically specified variables-from exploratory research, oriented toward hypothesis generation in emergent domains, and descriptive research, concerned with characterizing distributional properties of phenomena. Such taxonomic precision is consequential because it determines the appropriate epistemological stance, analytical strategy, and inferential claims permissible within the study. With respect to time frame, this study employed a cross-sectional survey administered at a single measurement occasion. Although longitudinal designs afford greater control over temporal ordering, cross-sectional designs remain methodologically defensible and indeed predominant in organizational behavior research for the purpose of testing theoretically pre-specified structural models (Creswell & Creswell, 2018; Kothari, 2004). Their prevalence in the extant literature reflects not methodological expediency but rather the recognition that causal directionality need not derive from temporal precedence when it is instead grounded in a rigorously developed theoretical framework (Shadish et al., 2002). In this thesis, the directionality of the hypothesized relationships is justified by the cumulative weight of decades of convergent empirical scholarship, transformational leadership theory (Burns, 1978; Bass, 1985), psychological empowerment (Spreitzer, 1995), and psychological safety (Edmondson,

1999). Furthermore, this study adopted PLS-SEM, which has been shown to be a very good model-in-depth for prediction and theory-confirmation, provides structural support for our directional model even without longitudinal data (Hair et al., 2022).

3.3 Sampling Design

3.3.1 Population

A population, according to Kothari (2004), is the totality of all units under consideration for research. The target population for this thesis consists of employees across all functional departments of Ethio Telecom's head office in Addis Ababa, excluding field and regional staff. Therefore, questionnaires were distributed to employees at Ethio Telecom's head office in Addis Ababa across all functional departments. To enhance the distributional coverage of the sample and minimize the homogeneity risk associated with single-unit convenience sampling, the researcher strategically administered questionnaires to respondents, ensuring representation from diverse departmental units.

3.3.2 Sampling Technique

"Sampling methods can be classified into two broad categories: probability sampling and non-probability sampling" (Kothari, 2004, p. 58). The former ensures that every member of the population has an equal chance of selection; it requires a complete sampling frame that is not always feasible in an organization like Ethio Telecom. This thesis utilizes convenience sampling. This approach was selected to ensure data can be gathered efficiently, relying on the voluntary engagement of staff rather than a rigid, pre-determined list. While non-probability sampling limits the generalizability of the findings to the whole population, it does not preclude use of inferential analysis for this thesis. As argued by Calder et al. (1981), strict probability sampling is not mandatory when testing theory. This rationale is supported by Saunders et al. (2019), who assert that non-probability sampling remains relevant in organizational research when probability sampling is impossible. Further, to accommodate this sampling technique, this study utilized PLS-SEM because it is nonparametric method which does not make strict data distribution assumptions (Hair et al., 2022), as it instead relies on bootstrapping.

3.3.3 Sample Size

An adequate sample size is necessary for statistical integrity as it affects the validity, reliability, and generalizability of the findings. Hair et al. (2010) warn that failing to secure enough participants exposes the study to Type II errors. Therefore, this study ensured the right sample size based on Hair et al.'s (2022) guideline, which consists of the following parameters:

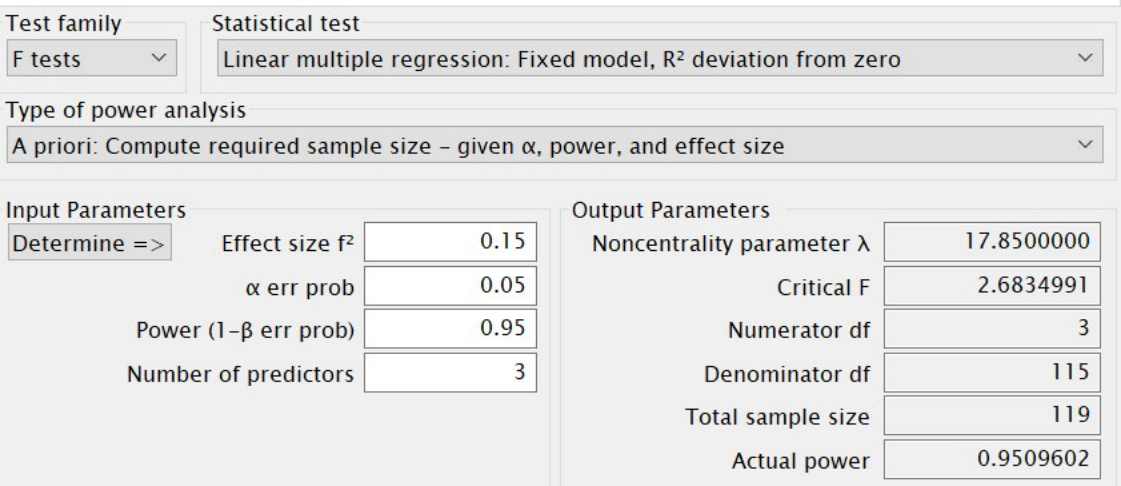
Number of predictors: Determining the largest number of independent variables that predict any single endogenous variable construct model (Hair et al., 2010).

Effect size (f^2): Hair et al. (2022) refer to Cohen's (1988) effect size criteria, where f^2 = 0.02, 0.15, and 0.35 reflect small, medium, and large effects, respectively.

Significance level (α): Commonly set at 0.05 for social science research.

Desired power (1- *β*): The probability of identifying the effect if it is genuinely present.

Figure 5 *G*Power Sample Size Calculation*



Assuming 3 predictors, a medium effect size (f^2=0.15), a significance level of 0.05, and a statistical power of 0.95, a minimum sample size of 119 participants was determined, as confirmed by G*Power 3.1 (Faul et al., 2009).

Inverse Square Root Method

In addition to G*Power, the inverse square root method formulated by Kock and Hadaya (2018) was applied to determine the minimum sample size. Assuming a significance level (α) of 0.05, the minimum expected absolute path coefficient ($|p_{min}|$) of 0.158 (was identified by pilot study), the minimum required sample size was calculated as follows:

$$N > (2.486/|p_{min}|)^2 = (2.486 / 0.158)^2 = (15.734)^2 = 247.5 \approx 248$$

The G*Power method yielded a sample size of 119, whereas the inverse square root method yielded 248. According to Hair et al. (2022), the inverse square root method proposed by Kock and Hadaya (2018) is the most robust option for determining a suitable sample size. Therefore, more than 248 questionnaires were distributed. This oversampling ensured the collection of sufficient data to maintain adequate statistical power to identify hypothesized effects as well as accounting for incomplete or unusable responses.

3.4 Instruments and Measurement

Instruments are tools or standardized scales used to collect data on variables, while measurement means turning abstract ideas into measurable variables (Babbie, 2020). Standardized instruments validated in earlier studies were used for each variable in this study. This approach allows for the quantitative and rigorous measurement of constructs. Questionnaire responses from participants were collected using a 5-point Likert scale, with 1 indicating strong disagreement and 5 indicating strong agreement for all items. The specific instruments for this thesis are:

Transformational Leadership: The Global Transformational Leadership scale created by Carless, Wearing, and Mann (2000) was used to measure transformational leadership. It contains 7 items. This scale was chosen over multifactor leadership questionnaires (MLQ) because the GTL is a short, psychometrically verified way to measure transformational leadership traits. GTL is a unidimensional measure that includes the main aspects of transformational leadership's four ‘‘I’’ dimensions. This aligns with the main theoretical framework of this study. Within this study, transformational leadership is treated as a unified construct reflecting leaders’ capacity to inspire and influence, intellectually stimulate, and individually support subordinates.

Psychological Empowerment: This study measured psychological empowerment by using Spreitzer’s (1995) 12-item scale (3 items for each dimension: meaning, competence, self-determination, and impact). In line with Spreitzer’s (1995) original validation and subsequent studies (Zhang & Bartol, 2010; Li et al., 2017), psychological empowerment was analyzed as the unidimensional description of the overall state of intrinsic motivation. Although the original rating of each empowerment item was based on a 7-point Likert scale, this study adapted it to a 5-point Likert scale. This change was made to improve the response format across the entire survey instrument and reduce respondent load and fatigue (Revilla et al., 2014). Methodological research has indicated that 5-point and 7-point scales produce equivalent mean, variance, and reliability measures when rescaled (Dawes, 2008). Furthermore, recent research has utilized and statistically validated this 5-point adaptation (Rani et al., 2021).

Psychological Safety: Psychological safety was measured in this study using Edmondson’s (1999) 7-item scale to assess individual-level perceptions of safety in Ethio Telecom. This scale is widely used and accepted in previous studies.

Employee Creativity: Employee creativity was measured using Baer and Oldham's (2006) 4-item scale, which assesses employee creative behaviors at Ethio Telecom.

Individual Power Distance Orientation: This study measured power distance using the 6-item scale from Farh et al. (2007), which is based on the original measure developed by Dorfman and Howell (1988). The scale assesses the extent to which employees in Ethio Telecom accept and expect unequal power distribution in the company.

3.5 Data Collection Method

Data were collected utilizing self-administered questionnaires, and the survey was hosted on Google Forms and disseminated to the target sample. Validated and standardized questionnaires were used to ensure the analysis objective. Kothari (2004) noted that a questionnaire is advantageous in descriptive and analytical research as it guarantees consistency in responses and enables statistical analysis. To collect data using self-administered questionnaires for this research, coordination was established with Ethio Telecom's staff in human resources department, managers and staff to reach employees. However, employees without regular access to email or social media platforms may be systematically excluded from the sample, introducing a potential digital access bias.

3.6 Pilot Study

A pilot study was conducted to identify weaknesses in the design and instrumentation. It is critical to refine the questionnaire and ensure the reliability and validity of the data collected in the main study (Saunders et al., 2019). A pilot study was conducted with 30 participants to evaluate the reliability and validity of the survey items.

3.6.1 Reflective vs. Formative Measurement Model Specification

The assessment of PLS-SEM results begins by examining the measurement model from two perspectives (formative constructs and reflective constructs). In a formative model, causal direction flows from observed variables to latent constructs (Hair et al., 2017). Whereas a reflective measurement model assumes that the latent construct causes the observed variables, with arrows pointing from the construct to the indicators (Hair et al., 2017). This was taken into consideration when using constructs to assign logical relationships within the structural model. Thus, for each indicator item which is not predicted to be correlated, a formative measurement model is employed. In contrast, the reflective measure is used where measurement items (indicators) are induced by the construct (associated constructs) and correlation is expected (Ringle et al., 2020). Reflective indicators can be removed or replaced (with appropriate rationale) without affecting the nature of the latent variable. The formative measure arrows are impacting upon the latent variable; if the items are removed then the construct will be incomplete.

In line with the recommendation of Hair et al. (2017), all latent variables in this thesis are modeled as a reflective measurement models.

Table 7 *Model Specification*

Constructs	Model	Reference
Transformational leadership	Reflective	Carless et al. (2000)
Psychological empowerment	Reflective	Spreitzer (1995), Alwali (2024)
Psychological safety	Reflective	Edmondson (1999), Appelbaum (2016)
Employee creativity	Reflective	Zhou & George (2001)
Power distance orientation	Reflective	Dorfman & Howell (1988), Farh et al. (2007)

3.6.2 Analysis and Discussion of Pilot Study

A pilot study with N = 30 participants was analyzed using SmartPLS version 4.1.1.8 software to assess the feasibility and psychometric properties of the survey instrument. The primary goal of the pilot was to validate the measurement model; structural path analysis was not performed.

Indicator Reliability/Outer Loading

Table 8 *Outer Loading Results of the Pilot Study*

Items/constructs	Outer loadings	Items/constructs	Outer loadings
EC1 <- EC	0.806	PDO1 <- PDO	0.818
EC2 <- EC	0.868	PDO2 <- PDO	0.796
EC3 <- EC	0.844	PDO3 <- PDO	0.892
EC4 <- EC	0.898	PDO4 <- PDO	0.847
PS1 <- PS	0.677	PDO5 <- PDO	0.725
PS2 <- PS	0.731	PDO6 <- PDO	0.853
PS3 <- PS	0.851	PE1 <- PE	0.673
PS4 <- PS	0.802	PE2 <- PE	0.651
PS5 <- PS	0.848	PE3 <- PE	0.762
PS6 <- PS	0.783	PE4 <- PE	0.795
PS7 <- PS	0.738	PE5 <- PE	0.913
TL1 <- TL	0.831	PE6 <- PE	0.878
TL2 <- TL	0.823	PE7 <- PE	0.927
TL3 <- TL	0.823	PE8 <- PE	0.839

TL4 <- TL	0.854	PE9 <- PE	0.824
TL5 <- TL	0.898	PE10 <- PE	0.701
TL6 <- TL	0.851	PE11 <- PE	0.762
TL7 <- TL	0.746	PE12 <- PE	0.783

Note. EC=employee creativity; PDO=power distance orientation; PE=psychological empowerment; PS=psychological safety; TL=transformational leadership.

Indicators in this analysis show high loadings (ranging from 0.701 to 0.927), and the reliability was high (Table 8). However, three indicators PE1 (0.673), PE2 (0.651), and PS1 (0.677) fell just below the threshold of 0.708 (Hair et al., 2022). Following guidelines of Hair et al. (2022), the removal of PE1, PE2, and PS1 was evaluated; their deletion did not improve composite reliability (CR) or average variance extracted (AVE) above established thresholds; therefore, they were retained to preserve content validity of the scale (Hair et al., 2022).

Internal Consistency and Convergent Validity

Table 9 *Construct Reliability and Validity Results of the Pilot Study*

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
EC	0.877	0.890	0.915	0.730
PDO	0.905	0.927	0.926	0.678
PE	0.947	0.963	0.954	0.635
PS	0.891	0.910	0.914	0.606
TL	0.927	0.942	0.941	0.695

Note. EC=employee creativity, PDO=power distance orientation, PE=psychological empowerment, PS=psychological safety, TL=transformational leadership.

Internal consistency with Cronbach's Alpha values in Table 9 ranges from 0.877 to 0.947, well above the usually accepted limit of 0.70 (Hair et al., 2022). Similarly, Composite Reliability (CR) was generally strong, ranging from 0.890 to 0.963. Convergent validity was examined using AVE. All constructs exceeded the minimum value of 0.50, with values from 0.606 to 0.730, which is strong evidence for convergent validity**.** On average, more than 60% of the variance in their respective indicators is explained by the constructs.

Discriminant Validity

Table 10 *HTMT Results*

	EC	PDO	PE	PS
PDO	0.590			
PE	0.486	0.379		
PS	0.620	0.556	0.446	
TL	0.323	0.536	0.536	0.470

EC=employee creativity; PDO=power distance orientation; PE=psychological empowerment; PS=psychological safety; TL=transformational leadership; HTMT= Heterotrait-Monotrait.

Table 10 shows that all HTMT values were below the conservative threshold of 0.85 (Hair et al., 2022). The highest observed value was 0.620 (between psychological safety and employee creativity), indicating that the constructs were well understood as independent by respondents.

3.7 Data Analysis Techniques

The main study's quantitative data were analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS 4.1.1.8 software. The selection of PLS-SEM over covariance-based SEM (CB-SEM) was based on four methodologically grounded criteria recommended by Hair et al. (2022). First, model complexity: the hypothesized model involves five latent constructs, two parallel mediators, one moderator, and nine hypothesized paths, constituting a higher-order moderated parallel mediation structure. Hair et al. (2022) explicitly recommend PLS-SEM for models with multiple endogenous constructs and complex indirect-effect chains, as it avoids the identification and convergence problems that afflict CB-SEM in such configurations. Second, PLS-SEM's variance-based estimation is more appropriate than CB-SEM, whose maximum likelihood estimation requires substantially larger samples (Hair et al., 2022; Chin, 1998). Third, distributional considerations: PLS-SEM is a non-parametric technique that does not require multivariate normality (Hair et al., 2022). Fourth, research purpose: this study is explanatory and prediction-oriented in nature, seeking to assess both the statistical significance and the predictive relevance of the proposed model. PLS-SEM uniquely facilitates both objectives through its simultaneous reporting of path coefficients (theory testing) and Q^2 predictive relevance (model prediction), as argued by Hair et al. (2022) and Shmueli et al. (2016).

After arranging, coding, and identifying factors, the dataset was imported into the SmartPLS 4.1.1.8 software. The analysis proceeded in two steps:

1. **Measurement Model Evaluation**: In this step, the study evaluated the measurement model specification to ensure each construct is set correctly as reflective. Since model specification was done in a pilot study as a reflective model, the main study assessed indicator reliability, internal consistency reliability (Cronbach's alpha and CR), convergent validity (AVE), and discriminant validity (HTMT).
2. **Structural Model Evaluation**: In this stage, the study assessed the collinearity (inner VIF), effect size (f^2), predictive relevance (Q^2), and hypothesis testing. The Bootstrapping procedure was run to test hypotheses. Following the run of bootstrapping, the direct effect (H1-H5), the mediation effects (H6a-H6b), the moderation effects (H7a-H7b), and the moderated mediation effects (H8a-H8b) were evaluated and interpreted.

3.8 Ethical Considerations

The thesis was conducted in compliance with the ethics and guidelines of Department of Management, Addis Ababa University. The study also adhered to ethical guidelines to protect the participants' rights, dignity, and safety by ensuring informed consent, voluntary participation, maintaining confidentiality, and ensuring their safety from harm (Saunders et al., 2019). Respondents were informed of privacy measures, such as the omission of names on the questionnaires, and were assured that data collection was only for academic purposes.

Chapter 4: Data Analysis and Interpretation

4.1 Introduction

Chapter four of the thesis provides a detailed account of the data analysis process, which either empirically supports or rejects proposed theoretical hypotheses derived from the reflective model. The data analysis was conducted by using SmartPLS version 4.1.1.8 software. The data were evaluated by a two-step approach: first, the measurement model was assessed for reliability and validity, and then the structural model was assessed to test the hypothesized relationships. These hypotheses systematically investigate the direct relationships between transformational leadership and employee creativity, the mediating roles of psychological empowerment and psychological safety, and the moderating influence of individual power distance orientation by dealing closely with the initial theoretical expectations against bootstrapping outputs, path coefficients, specific indirect effects, total effects, and conditional simple slopes. Ultimately, analysis provides insights into the operational realities of the organizational behavior of Ethio Telecom.

4.2 Demographic Characteristics and Response Rate

4.2.1 Demographic Characteristics

Table 11 *Demographics Frequencies*

Characteristic	Category	Frequency	Percentage
Gender	Male	216	61.7%
	Female	134	38.3%
Age	20-29	125	35.7%
	30-39	143	40.9%
	40 and above	82	23.4%
Education	Bachelor's degree	237	67.7%
	Master's degree	113	32.3%
	PhD.	0	0%
Experience	Less 5 years	112	32.0%
	6-10 years	128	36.6%
	11-20 years	107	30.6%
	More than 20 years	3	0.8%

Demographic frequencies in Table 11 show a higher proportion of male employees (61.7% of the sample) compared to female employees (38.3%). The age distribution indicates a relatively

young workforce, as most of the respondents belong to the 30-39 age segment (40.9%), followed closely by the 20-29 segment (35.7%). The remaining 23.4% of those employees are aged 40 and above. Regarding education, 67.7% and 32.3% of respondents hold a bachelor's degree and a master's degree, respectively. Since the study examines intellectual stimulation and psychological empowerment, highly educated workforces may respond cognitively differently to transformational leadership behaviors, making this academic level of attainment even more relevant. Moreover, the distribution of organizational professional tenure is well balanced in the three main categories: 32.0% of employees have less than 5 years of tenure, 36.6% represent the largest segment that has 6-10 years at work, and 30.6% have been with the organization for 11-20 years. Such a balanced distribution of tenure is crucial for the structural model robustness because aggregating findings of leadership efficacy, psychological safety, and creative output should reflect the budding beliefs of new hires as well as the highly settled views of seasoned employees to mitigate the influence of tenure-based perceptual bias.

4.2.2 Response Rate

As calculated in Chapter Three using the inverse square root method formalized by Kock and Hadaya (2018), which represents a highly robust option for PLS-SEM estimations, the minimum required sample size was 248 participants. During the empirical data collection phase at Ethio Telecom, a total of 356 responses were collected via questionnaires distributed to employees across all functional departments of the head office in Addis Ababa through email and internal employee social media groups. Then, a data cleaning and screening process was implemented to identify and eliminate unengaged responses, incomplete submissions, and anomalous data points. After this process, 350 (validity rate: 98.3%) valid responses were retained for the final analysis. This ensures that the final sample size of N = 350 exceeds the minimum requirement of the study.

4.3 Constructs Descriptive Statistics

Prior to evaluating the measurement model, the analysis of descriptive statistics is required to ensure the distributional health of the raw data matrix. A dataset characterized by extreme homogeneity affects the correlation magnitudes, suppressing the explanatory power of the model. The 36 items from the five core constructs (transformational leadership, psychological empowerment, psychological safety, employee creativity, and power distance orientation) were operationalized utilizing a 5-point Likert scale.

Table 12 *Descriptive Statistics*

Constructs	Items	Mean	Observed min	Observed max	Standard Deviation	Kurtosis	Skewness
Transformational Leadership	TL1	3.106	1.000	5.000	1.032	-0.467	0.053
	TL2	3.177	1.000	5.000	0.934	-0.500	0.021
	TL3	3.160	1.000	5.000	0.999	-0.499	-0.049
	TL4	3.114	1.000	5.000	0.993	-0.550	0.120
	TL5	3.146	1.000	5.000	0.950	-0.218	-0.074
	TL6	3.103	1.000	5.000	1.037	-0.450	-0.145
	TL7	3.120	1.000	5.000	1.007	-0.565	-0.024
Psychological Empowerment	PE1	3.126	1.000	5.000	0.963	-0.336	-0.042
	PE2	3.117	1.000	5.000	0.980	-0.375	-0.017
	PE3	3.151	1.000	5.000	0.927	-0.344	0.018
	PE4	3.166	1.000	5.000	0.954	-0.311	-0.158
	PE5	3.137	1.000	5.000	1.005	-0.413	-0.057
	PE6	3.151	1.000	5.000	0.964	-0.399	-0.134
	PE7	3.143	1.000	5.000	0.963	-0.526	-0.039
	PE8	3.157	1.000	5.000	0.966	-0.332	-0.090
	PE9	3.103	1.000	5.000	0.980	-0.360	0.158
	PE10	3.171	1.000	5.000	0.962	-0.355	0.077
	PE11	3.071	1.000	5.000	0.982	-0.534	-0.016
	PE12	3.120	1.000	5.000	0.981	-0.442	-0.060
Psychological Safety	PS1	3.226	1.000	5.000	0.979	-0.559	0.031
	PS2	3.149	1.000	5.000	0.960	-0.443	-0.068
	PS3	3.157	1.000	5.000	0.960	-0.332	-0.008
	PS4	3.177	1.000	5.000	1.018	-0.516	-0.100
	PS5	3.179	1.000	5.000	1.020	-0.518	-0.102
	PS6	3.131	1.000	5.000	1.003	-0.457	0.007
	PS7	3.160	1.000	5.000	0.961	-0.235	-0.112
	EC1	3.171	1.000	5.000	0.979	-0.367	-0.185

Employee Creativity	EC2	3.129	1.000	5.000	0.943	-0.540	-0.054
	EC3	3.180	1.000	5.000	0.982	-0.578	0.105
	EC4	3.166	1.000	5.000	0.972	-0.485	0.038
Power Distance orientation	PDO1	3.269	1.000	5.000	0.963	-0.359	-0.098
	PDO2	3.220	1.000	5.000	1.003	-0.538	-0.009
	PDO3	3.200	1.000	5.000	1.000	-0.362	-0.186
	PDO4	3.217	1.000	5.000	0.988	-0.379	-0.072
	PDO5	3.249	1.000	5.000	0.985	-0.518	0.062
	PDO6	3.249	1.000	5.000	1.049	-0.501	-0.124

As detailed in Table 12, which contains descriptive statistics (mean, standard deviation, kurtosis, skewness and observed maximum and minimum) in detail of measuring the five constructs of the study, a positive average response was found on all the indicators. Upon evaluating the individual items, the item PDO1 (M = 3.269, SD = 0.963), associated with the power distance orientation measure, had the highest mean, while item PE11 (M = 3.071, SD = 0.982), associated with psychological empowerment, showed the lowest mean. The standard deviations for all 36 items also appeared consistent, ranging from 0.927 to 1.049. This demonstrates that sufficient, healthy variance is found in the 350-participant dataset. All observed responses spanned 1 to 5 Likert scale with no missing values. Furthermore, the skewness and kurtosis values for all measurement items fell within acceptable thresholds of -1.0 to +1.0, which makes the dataset also well-suited for the evaluation using structural equation modeling (Hair et al., 2022).

4.4 Measurement Model Evaluation

The measurement model evaluation in PLS-SEM depends fundamentally on whether the construct is specified as reflective or formative (Hair et al., 2022). As outlined in Chapter 3 (Table 7), all constructs in this study were designed as reflective. Therefore, the measurement model was assessed based on indicator reliability, internal consistency, convergent validity, and discriminant validity. This ensures that the theoretical concepts are accurately captured by the survey instrument.

4.4.1 Indicator Reliability

Indicator reliability was assessed using outer loadings. Based on the benchmark of Hair et al. (2022), loading results greater than or equal to 0.708 provide excellent item reliability; loadings

between 0.40 and 0.708 are considered acceptable if their removal does not add value to composite reliability (CR) or average variance extracted (AVE), and loadings below 0.40 should be eliminated from the scale (Hair et al., 2022).

Table 13 *Outer Loadings*

Items/constructs	Outer loadings	Items/constructs	Outer loadings
EC1 <- EC	0.787	PDO1 <- PDO	0.781
EC2 <- EC	0.787	PDO2 <- PDO	0.806
EC3 <- EC	0.831	PDO3 <- PDO	0.787
EC4 <- EC	0.830	PDO4 <- PDO	0.764
PS1 <- PS	0.774	PDO5 <- PDO	0.763
PS2 <- PS	0.781	PDO6 <- PDO	0.770
PS3 <- PS	0.788	PE1 <- PE	0.736
PS4 <- PS	0.770	PE2 <- PE	0.709
PS5 <- PS	0.788	PE3 <- PE	0.679
PS6 <- PS	0.759	PE4 <- PE	0.751
PS7 <- PS	0.755	PE5 <- PE	0.770
TL1 <- TL	0.747	PE6 <- PE	0.735
TL2 <- TL	0.757	PE7 <- PE	0.761
TL3 <- TL	0.743	PE8 <- PE	0.758
TL4 <- TL	0.781	PE9 <- PE	0.723
TL5 <- TL	0.772	PE10 <- PE	0.702
TL6 <- TL	0.776	PE11 <- PE	0.727
TL7 <- TL	0.760	PE12 <- PE	0.749

Note. EC=employee creativity; PDO=power distance orientation; PE=psychological empowerment; PS=psychological safety; TL=transformational leadership.

In Table 13, the majority of indicators exceeded the threshold of 0.708, demonstrating that the indicators exhibit strong reliability (ranging from 0.709 to 0.831, with the exceptions of PE3 (0.679) and PE10 (0.702)). Following Hair et al. (2022), the removal of PE3 (0.679) and PE10 (0.702) was evaluated. Deleting these indicators resulted in a decrease in composite reliability (CR) from 0.933 to 0.927 and an increase in average variance extracted (AVE) from 0.539 to

0.559. Because the original AVE was already well above the threshold, deletion does not yield meaningful improvements in convergent validity. Therefore, both PE3 and PE10 were retained to preserve the content validity of the 12-item psychological empowerment scale (Hair et al., 2022).

4.4.2 Internal Consistency Reliability

Both Cronbach's alpha and Composite Reliability (CR) were utilized to assess the consistency of instruments. A Cronbach's alpha value of 0.70 or greater shows that the items demonstrate internal consistency (Hair et al., 2022). However, PLS-SEM literature argues that Cronbach's alpha is limited in variance-based SEM because it assumes tau-equivalence, meaning that all indicators are assumed to have equal outer loadings and contribute equally to the construct. As this assumption is rarely met in practice, Cronbach's alpha tends to underestimate the true reliability of constructs and is therefore considered a conservative lower-bound estimate of internal consistency reliability (Hair et al., 2022). Partial least squares path modelling (PLSc) by Dijkstra and Henseler (2015) introduced the exact reliability coefficient (rho_a) which serves as an optimal intermediate metric between the conservative alpha and the liberal (rho_c). Composite reliability provides a more accurate approach to assessing reliability in PLS-SEM, as it does not assume tau-equivalence. According to Hair et al. (2022), a CR result greater than or equal to 0.70 but less than 0.95 indicates that the latent construct is measured with sufficient reliability. Values below 0.70 and above 0.95 indicate a lack of consistency and redundancy, respectively.

Table 14 *Construct Reliability and Validity*

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
EC	0.824	0.825	0.883	0.655
PDO	0.870	0.875	0.902	0.606
PE	0.922	0.924	0.933	0.539
PS	0.888	0.889	0.913	0.599
TL	0.880	0.881	0.907	0.581

Note. EC=employee creativity; PDO=power distance orientation; PE=psychological empowerment; PS=psychological safety; TL=transformational leadership.

In Table 14, all constructs demonstrated high levels of internal consistency. Cronbach's alpha result ranged from low employee creativity (0.824), power distance orientation (0.870),

transformational leadership (0.880), psychological safety (0.888) to high psychological empowerment (0.922), while critical composite reliability (rho_c) values ranged from 0.883 to 0.933. The exact reliability metric Composite reliability (rho_a) predictably tracks closely between these bounds across all constructs. Therefore, the measurement instruments utilized in this thesis accurately measured their intended constructs without suffering redundancy, as all of the values fell comfortably within the acceptable threshold of being greater than the 0.70 criterion and less than 0.95.

4.4.3 Convergent Validity

Convergent validity was assessed using the average variance extracted (AVE) metric in SmartPLS 4.1.1.8. AVE indicates the extent to which a latent construct positively correlates with alternative measures of the same theoretical concept (Hair et al., 2022). An AVE value of 0.50 or higher is recommended, as this proves that the construct explains more than half of the variance its underlying indicators (Hair et al., 2022). As shown in Table 14, employee creativity (0.655) and power distance orientation (0.606) demonstrated strong validity, while psychological empowerment (0.539) and psychological safety (0.599) also showed satisfactory convergence. The minimum AVE is 0.539 for psychological empowerment, and the maximum is 0.655 for employee creativity. The results in Table 14 confirm that the measurement items in this thesis are statistically valid and reliably reflect their respective theoretical constructs. The results statistically certify that the items converge upon their intended targets and the measurement model contains minimal unexplainable error variance.

4.4.4 Discriminant Validity

The Heterotrait-Monotrait ratio of correlations (HTMT) criterion was used to assess discriminant validity. Discriminant validity ensures that a latent construct is empirically distinct from other constructs within the identical structural equation model (Hair et al., 2022). Historically, PLS-SEM literature relied on two primary methods to establish discriminant validity: the Fornell-Larcker criterion (which compares the square root of a construct's AVE against its correlations with other latent variables) and the examination of cross-loadings (Fornell & Larcker, 1981). However, transformative methodological research published by Henseler et al. (2015) in the Journal of the Academy of Marketing Science demonstrated through extensive Monte Carlo simulations that these traditional approaches suffer from critical flaws. Specifically, the Fornell-Larcker criterion fails to reliably detect a lack of discriminant validity when indicator loadings are highly uniform across constructs. To resolve this methodological vulnerability, Henseler et al. (2015) proposed an alternative, highly robust approach based on the multitrait-multimethod matrix: the Heterotrait-Monotrait ratio of

correlations (HTMT). The HTMT statistic provides an estimate of the true correlation between two constructs if they were measured with absolute, perfect reliability. According to established thresholds by Henseler et al. (2015), HTMT values should ideally be lower than 0.85 (strict criterion) or 0.90 (liberal criterion) to confirm that two constructs are distinct.

Table 15 *Discriminant Validity (HTMT Results)*

	EC	PDO	PE	PS
PDO	0.292			
PE	0.556	0.308		
PS	0.476	0.249	0.456	
TL	0.427	0.291	0.647	0.483

Note. EC=employee creativity; PDO=power distance orientation; PE=psychological empowerment; PS=psychological safety; TL=transformational leadership; *HTMT*= Heterotrait-Monotrait

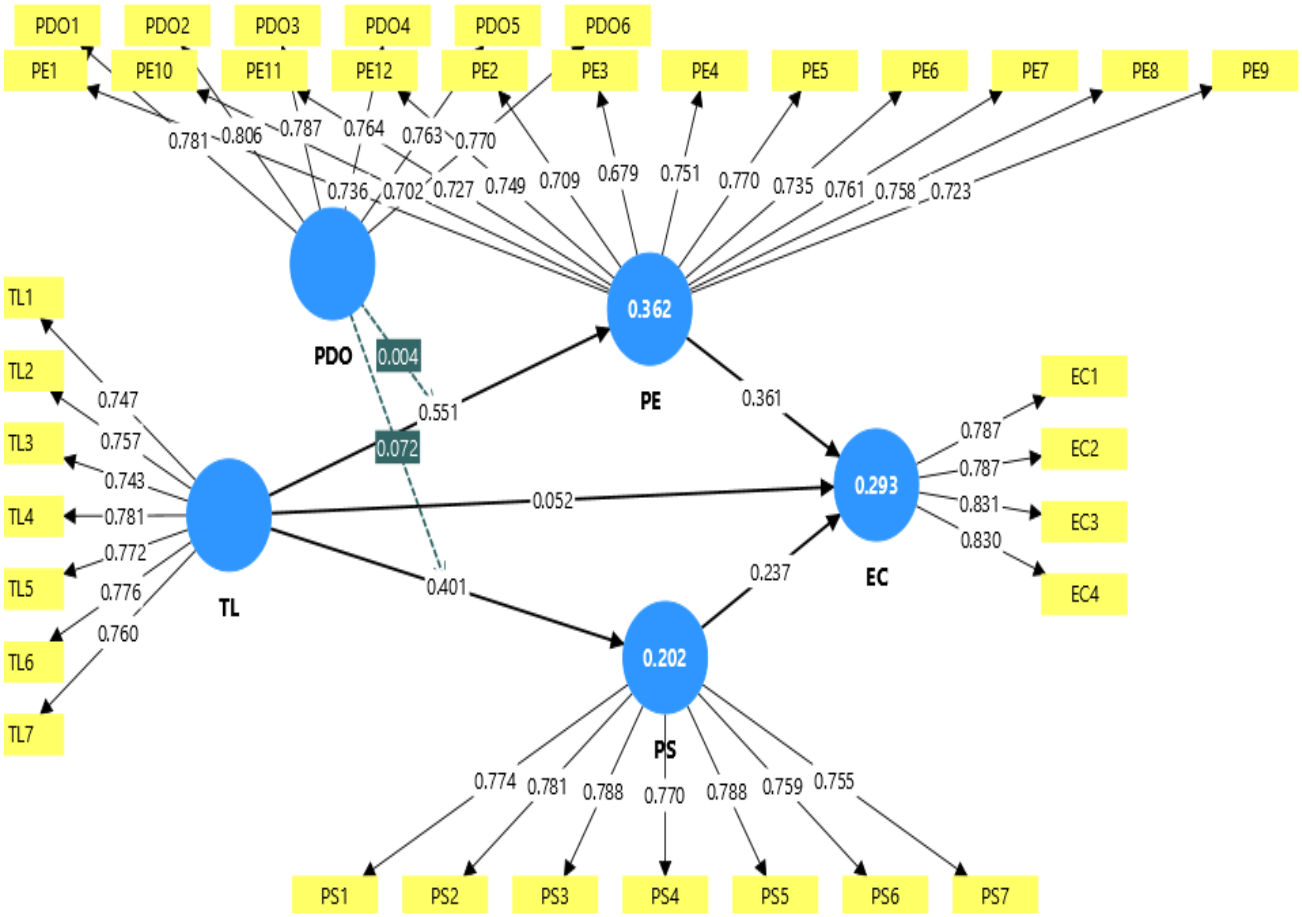
As shown in Table 15, all HTMT values in the matrix are well below the conservative threshold of 0.85. The highest reported correlation is between transformational leadership and psychological empowerment (0.647), which remains significantly below the limit. The validation of discriminant validity leads to the final stage of measurement model evaluation phase.

4.4.5 Measurement Model Result Summary

In the study, where reflective constructs guided the implementation of the measurement model, the measurement model was validated for adequate fit with the conceptual constructs of the survey instrument. Following the standards of Hair et al. (2022), the assessment confirmed high indicator reliability, with most outer loadings exceeding the 0.708 threshold, with the minor exceptions of 0.679 and 0.702 in psychological empowerment, and sufficient internal consistency, as all Cronbach's alpha and composite reliability values fell within the acceptable range of 0.70 to 0.95. Convergent validity through analysis of the average variance extracted (AVE) met the criterion of being above 0.50. Lastly, discriminant validity was ascertained through the Heterotrait-Monotrait (HTMT) ratio, with all values clearly below the conservative threshold of 0.85. Figure 7 below illustrates the outer model (yellow: indicators) and their loadings onto the latent variables (blue: inner model constructs). The value in the center of the

dependent variables represent the coefficient of determination (R^2) and the values on connecting lines represent the path coefficient (β).

Figure 6 *Measurement Model*



4.5 Structural Model Evaluation

Having validated the measurement model (reliability and validity), the structural model was subsequently evaluated. According to the guidelines for PLS-SEM outlined by Hair et al. (2022), the structural model evaluation followed five steps. First, the inner model was examined for potential collinearity issues using the variance inflation factor (VIF). Second, the significance and relevance of the path coefficients were assessed using a bootstrapping procedure to generate t-values, p-values and 95% bias-corrected confidence intervals. Third, the model's explanatory power was evaluated using the coefficient of determination ($R^{2)}$ for the endogenous latent variables. Fourth, the impact of the exogenous variables was determined by assessing the effect size (f^2). Finally, the model's out -of- sample predictive power was evaluated using Q^2 predict. Based on the guidelines of Hair et al. (2022), for two-tailed tests, a hypothesized relationship in this study is considered statistically significant if its p-value < 0.05, which corresponds to a t-value >1.96 and its 95% bias-corrected confidence interval does not contain the value of zero.

Figure 7 *Structural Model (Bootstrapping Result)*

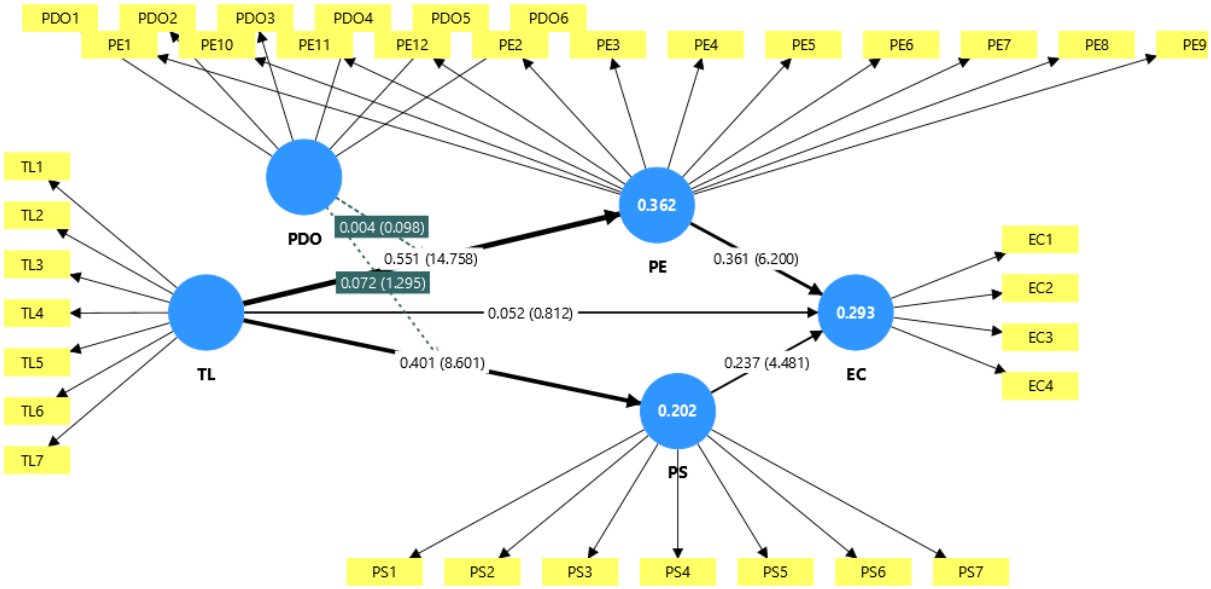


Figure 8 shows the bootstrapping result that we used to analyze all hypotheses. Values in connecting lines represent path coefficient with t-values.

4.5.1 Collinearity Assessment (Inner VIF)

Before testing the path coefficients, we checked collinearity. Collinearity occurred when the variance inflation factor (VIF) values exceeded a threshold of 3 (or strictly 5) (Hair et al., 2022). VIF values below 3 indicates that multicollinearity among predictor constructs is not concern (Hair et al., 2022). In ordinary least squares regression and PLS-SEM, severe collinearity inflates standard errors, distorts coefficient estimations, and dramatically increases the likelihood of Type II errors, thereby rendering hypothesis testing mathematically invalid (Hair et al., 2022). Furthermore, an absence of structural collinearity serves as a powerful procedural indicator that the data is not suffering from acute common method biased (Hair et al., 2022).

Table 16 *Collinearity Statistics*

	EC	PE	PS
PDO		1.071	1.071
PE	1.603		
PS	1.288		
TL	1.626	1.074	1.074
PDO x TL		1.003	1.003

Note. EC=employee creativity; PDO=power distance orientation; PE=psychological empowerment; PS=psychological safety; TL=transformational leadership.

In Table 16, the inner VIF report of this thesis for all predictor constructs was found to be well within the conservative limits. The values range from a low of 1.003 (PDO x TL predicting psychological empowerment and psychological safety) to a high of 1.626 (for transformational leadership predicting employee creativity). All VIF statistics are below 3; this means that the independent variables are distinct and that the model is free from critical collinearity bias.

4.5.2 Hypothesis Testing (Bootstrapping)

The proposed hypotheses were tested using a bootstrapping method in SmartPLS 4.1.1.8. Bootstrapping is used because PLS-SEM does not assume that the data follows a normal distribution (a property known as being nonparametric); it cannot rely on traditional parametric significance tests, such as the standard t-test calculated from assumed standard errors (Hair et al., 2017). For this reason, bootstrapping procedure was performed using 5,000 subsamples to ensure stabilization and correctness. Direct, indirect, and moderating effects were assessed using two-tailed t-tests; significance level was 0.05. In addition, bias-corrected and accelerated (BCa) confidence intervals were used to examine the robustness of the estimate.

4.5.2.1 Testing Direct Effects (H1-H5)

Initial phase of structural evaluation involves examining direct path coefficients connecting transformational leadership (exogenous construct) to both psychological empowerment and psychological safety and finally employee creativity (endogenous variable). Path coefficients, t-statistics, and p-values were used to assess direct relationships. Table 17 presents the direct effect resulted from the 5,000-subsample bootstrapping.

Table 17 *The Results of the Structural Model path coefficients (Direct Effects)*

Hypotheses	Path	Beta (β)	T-Values	P-Values	95% Confidence Interval	
					Lower Bound	Upper Bound
H1	TL -> EC	0.052	0.812	0.417	-0.077	0.174
H2	TL -> PE	0.551	14.758	0.000	0.477	0.623
H3	TL -> PS	0.401	8.601	0.000	0.309	0.493
H4	PE -> EC	0.361	6.200	0.000	0.251	0.479
H5	PS -> EC	0.237	4.481	0.000	0.131	0.340

Note. EC=employee creativity; PDO=power distance orientation; PE=psychological empowerment; PS=psychological safety; TL=transformational leadership.

Table 17 shows that transformational leadership significantly and positively affects psychological empowerment (β= 0.551, t =14.758, p < .001) and psychological safety (β = 0.401, t = 8.601, p < .001). Because 95% intervals for both the TL -> PE and TL -> PS paths do not contain zero, hypotheses 2 and 3 are fully supported. Conversely, there is statistically no direct path from transformational leadership to employee creativity (β = 0.052, t = 0.812, p =0.417). Therefore, H1 is not supported. Further, the model subsequently confirms the significant positive influence of both psychological empowerment (β= 0.361, t =6.200, p < .001) and psychological safety (β= 0.237, t =4.481, p < .001) on employee creativity. The confidences interval for both paths excludes zero. Thus, hypotheses 4 and 5 are strongly supported. This indicates that both psychological empowerment and psychological safety are significant predictors of employee creativity. Psychological empowerment exerts a powerful positive effect on employee creativity. Similarly, psychological safety serves as a highly significant, positive predictor of employee creativity.

4.5.2.2 Testing Mediation Effects (H6a-H6b)

In this thesis, we modeled psychological empowerment and psychological safety as parallel mediators in the SmartPLS framework to examine the indirect effect of transformational on employee creativity. This estimation approach is highly useful for researching indirect effects, where the unique contribution of each mediator is considered, and the variance through competing pathways is statistically controlled (Hayes, 2022). The rejection of direct effect (H1), when compared with support of the antecedent-to-mediator (H2, H3) and mediator–to–outcome (H4, H5) paths, sets the methodological stage for evaluating central mediation hypotheses.

Table 18 *The Results of Mediation Effects (Specific Indirect Effects)*

Hypotheses	Path	Beta (β)	T-Values	P-Values	95% CI		VAF
					LB	UB	
H6a	TL -> PE -> EC	0.199	5.446	0.000	0.132	0.277	57.5%
H6b	TL -> PS -> EC	0.095	3.902	0.000	0.050	0.147	27.5%

Note. EC=employee creativity; PDO=power distance orientation; PE=psychological empowerment; PS=psychological safety; TL=transformational leadership, CI=confidence interval; LB= lower bound; UB=upper bound; VAF = variance accounted for.

The results show that psychological empowerment and psychological safety significantly mediate the relationship between transformational leadership and employee creativity. The indirect effect via psychological empowerment (β = 0.199, t = 5.446, p < .001) was approximately twice the magnitude of the indirect effect via psychological safety (β = 0.095, t = 3.902, p < .001). In both paths, the confidence interval does not contain zero. Therefore, hypotheses 6a and 6b are strongly supported. The variance accounted for (VAF), reported here for descriptive purposes, supports this conclusion: of the total effect of transformational leadership on employee creativity (0.346), psychological empowerment accounts for 57.5% and psychological safety accounts for 27.5%, with the two mediators jointly accounting for approximately 85.0% of the total effect-consistent with the near-zero, non-significant direct path (Hair et al., 2014, 2017). The significance of the specific indirect effects, combined with the non-significance of the direct effect, indicates indirect-only (full) mediation (Hair et al., 2022).

4.5.2.3 Testing Moderation Effects (H7a-H7b)

The foundational hypothesis derived from contingency theory is that employees exhibiting high power distance orientation will be less responsive to transformational leaders who attempt to flatten hierarchies, delegate authority, and empower subordinates (Dorfman & Howell, 1988; Hofstede, 1980; Kirkman et al., 2009). To test the power distance orientation boundary condition for transformational leadership, structural model incorporated moderation analysis.

Table 19 *The Results of Moderating Effects*

Hypotheses	Path	Beta (β)	*T*-values	*P*-values	95% CI	
					Lower Bound	Upper Bound
H7a	PDO x TL -> PE	0.004	0.098	0.922	-0.086	0.092
H7b	PDO x TL -> PS	0.072	1.295	0.195	-0.038	0.181

Note. EC=employee creativity; PDO=power distance orientation; PE=psychological empowerment; PS=psychological safety; TL=transformational leadership; CI=confidence interval.

As indicated in Table 19, in contrast to the proposed hypotheses, the power distance orientation was not found to provide significant boundary conditions on the effectiveness of transformational leadership. Neither interaction term reached significance: PDO × TL predicting psychological empowerment (β = 0.004, t = 0.098, p = .922) and psychological safety (β = 0.072, t = 1.295, p = .195), leading to the rejection of hypotheses 7a and 7b.

4.5.2.4 Testing Moderated Mediated Effect (H8)

The final structural hypotheses (H8a and H8b) proposed moderated mediation (also known as conditional mediation) occurs when an indirect pathway through a mediator depends on a moderator (Hayes, 2022). Specifically, it was hypothesized that the indirect effect of transformational leadership on employee creativity via psychological empowerment and psychological safety fluctuates depending on the value of power distance orientation.

Table 20 *Moderated Mediation Results*

Hypotheses	Path	Beta (β)	*T*-values	*P*-values	95% CI	
					LB	UB
H8a	PDO x TL -> PE -> EC	0.002	0.096	0.923	-0.031	0.035
H8b	PDO x TL -> PS -> EC	0.017	1.197	0.231	-0.009	0.049
Conditional Indirect Effect via Psychological Empowerment						
TL -> PE -> EC PDO at +1 SD		0.200	4.807	0.000	0.126	0.289
TL -> PE -> EC PDO at -1 SD		0.197	5.141	0.000	0.130	0.281
TL -> PE -> EC PDO at Mean		0.199	5.446	0.000	0.132	0.277
Conditional Indirect Effect via Psychological Safety						
TL -> PS -> EC PDO at +1 SD		0.112	3.521	0.000	0.056	0.181
TL -> PS -> EC PDO at -1 SD		0.078	3.230	0.001	0.037	0.129
TL -> PS -> EC PDO at Mean		0.095	3.902	0.000	0.050	0.147

Note. EC=employee creativity; PDO=power distance orientation; PE=psychological empowerment; PS=psychological safety; TL=transformational leadership; CI=confidence interval.

As Table 20 shows, the moderated mediation hypotheses are not supported. The interaction of power distance and transformational leadership did not significantly impact the indirect effect on employee creativity through psychological empowerment (β= 0.002, t = 0.096, p = 0.923) or psychological safety (β= 0.017, t = 1.197, p = 0.231). Because p -values for both paths are above the threshold, hypotheses 8a and 8b were not supported. Specifically, whether the indirect effect of transformational leadership on employee creativity differed at a high versus a low level of individual power distance orientation, conditional indirect effects were investigated. Although indirect effects of transformational leadership on employee creativity

were still statistically significant ($p < 0.001$) across high (+1 SD), mean and low (-1 SD) levels of power distance orientation for both mediators, the difference between these points was not significant. Indeed, the results reveal that the indirect influence of transformational leadership on employee creativity does not differ substantially by the individual power distance orientation levels.

4.5.3 Model Quality Criteria

We concluded the structural evaluation by assessing the model quality criteria using coefficient of determination, effect size and predictive relevance.

4.5.3.1 Coefficient of Determination(R^2)

Coefficient of determination (R^2) is the level of variance in the dependent variable (employee creativity, psychological empowerment, psychological safety) accounted for by independent variables (transformational leadership and power distance orientation) (Chin, 2009). According to standard social science thresholds defined by Hair et al. (2022), R^2 values of 0.75, 0.50, and 0.25 are categorized as representing substantial, moderate, and weak levels of explanatory power, respectively.

Table 21 *R-Square and Predictive Relevance*

	R-square	R-square adjusted	Q^2 predict
EC	0.293	0.287	0.141
PE	0.362	0.356	0.345
PS	0.202	0.195	0.183

Note. EC=employee creativity; PE=psychological empowerment; PS=psychological safety.

Table 21 shows that the transformational leadership accounts for 36.2% of variance in psychological empowerment (R^2 =0.362) and 20.2% of variance in psychological safety (R^2=0.202). Transformational leadership, individual power orientation and parallel psychological mechanisms collectively explain nearly 29.3% of the variance in the employee creativity (R^2= 0.293). According to Hair et al. (2022) this is weak to moderate explanatory power. Indeed, this is expected in the behavioral sciences, as creativity is a complex construct influenced by numerous internal and external factors. Furthermore, the R^2 values of the mediators, psychological empowerment (0.362) and psychological safety (0.202), confirm that transformational leadership is a reliable predictor of these psychological states.

4.5.3.2 Size Effect (f^2)

Effect size (f^2) indicates the magnitude of the impact that an exogenous construct upon endogenous construct (Cohen, 1988). In this thesis, f^2 was utilized to determine the specific impact of individual exogenous constructs exert upon their target endogenous constructs.

Table 22 *f-Square*

	EC	PE	PS
PDO		0.029	0.017
PE	0.115		
PS	0.062		
TL	0.002	0.442	0.188
PDO x TL		0.000	0.006

Note. EC=employee creativity, PDO=power distance orientation, PE=psychological empowerment, PS=psychological safety, TL=transformational leadership.

Based on Cohen's (1988) guidelines, transformational leadership has a large effect on psychological empowerment (f^2 = 0.442) and medium effect on psychological Safety (f^2 = 0.188). Specifically, the positive effect of psychological empowerment upon creativity was found to be 0.115 which suggests a small-to-medium effect, and psychological safety had a small effect (f^2 = 0.062) with a small level of effectiveness. These findings indicate that empowerment is the main driver of the mediation mechanism. The last interaction terms PDO x TL has negligible effect size (0.00 and 0.006), confirming that power distance orientation has no practical moderating influence in this model.

4.5.3.3 Predictive Relevance (Q^2 predict)

Advancements in PLS-SEM methodology dictate that an over-reliance on R^2 is fundamentally dangerous. To execute this, the analysis utilized the highly advanced PLSpredict algorithm, developed by Shmueli et al. (2016). A Q^2 predictive value greater than zero indicates the model that predicts using defined relationships is superior to using average value prediction (Shmueli et al., 2016). It also indicates that the model is structurally sound and possesses strong predictive capabilities (Shmueli et al., 2016). As per Hair et al. (2022), 0.02 is weak; 0.15 is moderate; and 0.35 is strong in terms of Q^2. As per Table 21, Psychological empowerment demonstrated strong predictive relevance (Q^2 = 0.345), psychological safety demonstrated moderate predictive relevance (Q^2 = 0.183), and employee creativity demonstrated weak-to-moderate predictive relevance (Q^2 = 0.141), all exceeding zero, confirming model predictive

validity (Shmueli et al., 2016). Therefore, connecting transformational leadership, psychological empowerment, psychological safety, and employee creativity are not mere artifacts of in-sample overfitting, but rather represent highly stable, and statistically predictive organizational truths.

4.6 Summary and Discussion of Findings

The structural model was evaluated, indicating explanatory power (R^2) and predictive relevance (Q^2), without evidence of multicollinearity bias. Four types of hypotheses were tested using bootstrapping procedure: direct, mediation, moderation and mediated moderation. Table 23 provides summary of the structural hypothesis decisions.

Table 23 *Summary of Hypotheses Testing Results*

Hypotheses	Paths/Description	Decision
H1	TL -> EC (Direct effect)	Not supported
H2	TL -> PE (Path p_1 mediation)	Supported
H3	TL -> PS (Path p_1 mediation)	Supported
H4	PE -> EC (Path p_2 mediation)	Supported
H5	PS -> EC (Path p_2 mediation)	Supported
H6a	TL -> PE -> EC (Mediation)	Supported
H6b	TL -> PS -> EC (Mediation)	Supported
H7a	PDO x TL -> PE (First-stage Moderation)	Not supported
H7b	PDO x TL -> PS (First-stage Moderation)	Not supported
H8a	PDO x TL -> PE -> EC (Moderated mediation)	Not supported
H8b	PDO x TL -> PS -> EC (Moderated mediation)	Not supported

Note. EC=employee creativity, PDO=power distance orientation, PE=psychological empowerment, PS=psychological safety, TL=transformational leadership.

Table 23 provides a consolidated summary of all eleven structural hypotheses tested in this study, presenting the direction, statistical significance, and accept or reject decision for each. Of the eleven hypotheses, six are supported and five are not supported. The following sub-sections discuss each of the four major findings in detail, drawing on the statistical evidence above to provide theoretical interpretation and contextual analysis relevant to Ethio Telecom.

4.6.1 The Discovery of Indirect-only Mediation (Full Mediation)

Transformational leadership exerted no statistically significant direct effect on employee creativity. In accordance with the significance-based approach to mediation analysis advanced

by Zhao et al. (2010) and Nitzl et al. (2016), which Hair et al. (2022) endorse as the primary criterion within the PLS-SEM framework, the combination of statistically significant specific indirect effects through psychological empowerment and psychological safety, alongside a non-significant direct effect is indicative of indirect-only mediation, historically referred to as full mediation (Baron & Kenny, 1986). The effect of transformational leadership on employee creativity is entirely through these two psychological mechanisms, with no remaining direct pathway. This indicates that transformational leadership does not directly lead employees to creativity; it cultivates the necessary psychological conditions for creativity to emerge. Early leadership literature frequently predicted a direct, linear relationship between transformational leadership and follower's creative output (Shin & Zhou, 2003; Tierney & Farmer, 2002), based on the assumption that a leader's charisma and vision directly generate innovative ideas (Bass, 1985; Bass & Riggio, 2006).

However, results from Ethio Telecom samples align with contemporary, sophisticated models of organizational behaviors. A leader's transformational behavior, no matter how visionary or charismatic, alone does not create more creativity in employees. Transformational leadership is characterized by idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994) act as an environmental architect instead direct cognitive trigger for the employee. Drawing upon Amabile's (1996) Componential Theory of Creativity, the generation of novel and useful ideas requires specific components: domain-relevant skills, creativity-relevant processes, intrinsic task motivation, and a highly conducive social work environment. Transformational leadership is necessary but ultimately insufficient condition for employee creativity. It has a capacity to construct the psychological states required for creativity to flourish.

This finding undermines traditional top-down views of innovation. It corresponds with Amabile's (1983) componential theory of creativity, which claims that intrinsic motivation and a supportive work environment are absolute prerequisites for creative output. It strongly supports the results Alshawabkeh et al. (2024), which confirmed full mediation within the Malaysian customer service industry and provides firm evidence to endorse the meta-analytic findings of Koh et al. (2019), where direct leadership impacts typically evaporate when sound psychological mediators are considered. As these findings contrast with conflicting findings from scholars, including Hanaysha (2022) and Simamora (2021), they demonstrate that the direct force of a leader in complex, high-stakes technological contexts is insufficient to stimulate performance without the employee's psychological states.

4.6.2 The Mediating Role of Psychological Empowerment

Psychological empowerment was identified as the most prominent mediator in this analysis (β = 0.199, f^2 = 0.115), suggesting it to be the main cognitive mechanism motivating creative behavior from transformational leaders. To be specific, the transformational leaders at Ethio Telecom provide individualized consideration and intellectual stimulation when they implement these behaviors, and when they lead them, a direct and powerful positive impact is found on the subordinates' feelings of autonomy, competence, and task meaningfulness (ß = 0.551). When employees feel empowered, their creative output increases significantly (ß = 0.361). Theories of empowerment reviewed in Chapter 2 provide further rationale for these findings. Conger and Kanungo (1988) have developed the idea of empowerment not only as an assertion of authority but also as a motivational system that systematically builds employee self-efficacy through the elimination of structural barriers. By applying idealized influence and individualized consideration, Ethio Telecom leaders foster the four cognitive dimensions according to Spreitzer (1995): meaning, competence, self-determination, and impact. It is also in line with the recent cross-cultural study by Alshawabkeh et al. (2024) and Alhosani and Ahmad (2024).

4.6.3 The Role of Psychological Safety

Like psychological empowerment, the result confirmed that psychological safety acts as a vital parallel mediator (β= 0.095, $p < .001$). Transformational leaders significantly reduce the fear of interpersonal risk-taking among their employees (β = 0.401), which leads to higher levels of creativity (β = 0.237). As discussed in Chapter 2, by its nature, creativity calls for challenging the status quo, proposing untested ideas, and occasionally making mistakes. Psychological safety is one way in which leaders can lower interpersonal risk to unlock employees' creative behaviors otherwise dormant (Edmondson, 1999). The results validated that transformational leaders foster a "safe space," wherein employees feel safe enough to experiment and to speak out in innovative ways (Kahn, 1990). The strong direct effect of transformational leadership on psychological safety (β = 0.401, $p < 0.001$) can be explained theoretically with Social Learning Theory (Bandura, 1977) and Social Exchange Theory (Blau, 1964). From a social learning perspective, employees notice that their leaders practice individualized consideration and intellectual stimulation, and the work itself incentivizes experimentation instead of rigid compliance. In the process of social exchange, leaders create a valuable socio-emotional resource for a safe, non-punitive environment. In exchange, employees are expected, in turn, to "repay" this trust by taking on the socially risky task of generating and sharing new ideas. These results are consistent with prior empirical studies by Jin & Peng (2024) in China and

Alhosani & Ahmad (2024) in the Saudi Arabian hotel industry, suggesting the importance of creating a safe environment for innovation. Likewise, the effective mediation pathway endorses the previous longitudinal work by Carmeli et al. (2014), who identified psychological safety as the pivotal channel through which transformational leaders facilitate creative problem solving. Reflecting on the foundational argument used at the beginning of this study, the empirical evidence confirms that employee creativity needs a dual structural approach. While psychological empowerment is used as the catalyst driving an employee's intrinsic motivation, psychological safety provides the critical environmental condition for that motivation to flourish.

4.6.4 The Power Distance Orientation: Non-Significant Moderator

Power distance orientation does not significantly moderate the relations between transformational leadership and both psychological empowerment (β = 0.004, p = .922) and psychological safety (β = 0.072, p = .195), leading to the rejection of H7a and H7b respectively. Since the first-stage moderation was completely insignificant, the overall moderated parallel mediation model (hypotheses 8a and 8b) predicting employee creativity through psychological empowerment (β = 0.002, p = .923) and psychological safety (β = 0.017, p = .231) was similarly rejected. These null interaction results contribute rigorously to the theoretical field by disputing conventional cultural contingency theories. Hofstede's (1980) cultural dimensions, employees with high power distance orientation inherently expect and accept unequal power distributions, would remain less receptive to transformational leader behaviors that grant more autonomy and encourage egalitarianism. Based on the "mismatch" theories by Sagie and Aycan (2003) and recent empirical studies by Bui et al. (2023) high power distance orientation does affect the positive effect of transformational leadership (in prior studies), although this was not found in the present sample.

Certain cross-sectional cultural investigations argue that the core tenets of transformational leadership, such as idealized influence, individualized consideration satisfy fundamental, universal human needs for respect, purpose and personal growth effectively transcending localized cultural programming (Caza et al., 2020). Cultural contingency models (Kirkman et al., 2009), argued that leadership effectiveness is determined by followers' cultural values (their attitude towards hierarchical power relationships). However, the empirical findings of this study did not support this theoretical prediction within the context of Ethio Telecom. The most efficient explanation is to consider self-determination theory (Deci & Ryan, 1985): the competence, relatedness and autonomy that transformational leadership fulfills are psychological needs that are inherently universal across cultures. Even the employees

accustomed to a steep hierarchy strongly embrace and benefit from leaders who provide individualized consideration and intellectual stimulation.

However, High-power distance orientation employees may, under default conditions, receive less empowerment and safety (as evidenced by the significant negative direct effects of power distance orientation on both psychological empowerment (β = -0.140, p = 0.003) and psychological safety (β= -0.120, p = 0.024), but they do not differentially resist these states when they are actively cultivated by a transformational leader. This indicates that a strict adherence to hierarchy inherently reduces baseline psychological well-being. Yet the interaction terms indicate that the follower's power distance orientation ultimately fails to overshadow the positive impact of the transformational leader. Regardless of an employee's baseline expectations of power distance orientation, genuine managerial support, inspirational vision and intellectual stimulation are universally appreciated psychological states. Further, the independent variable itself (transformational leadership) dismantles hierarchy via daily relationship behaviors with employees.

Finally, one possible explanation for the lack of moderation, albeit speculative, is that the sample's demographic profile (76.7% under 40, 100% degree-holding) may reflect a modernized workforce for whom power distance orientation exerts less influence. However, this demographic interpretation is a post-hoc explanation without direct statistical testing in our model. It remains speculative and future research requires empirical testing.

Chapter Five: Summary, Conclusion and Recommendations

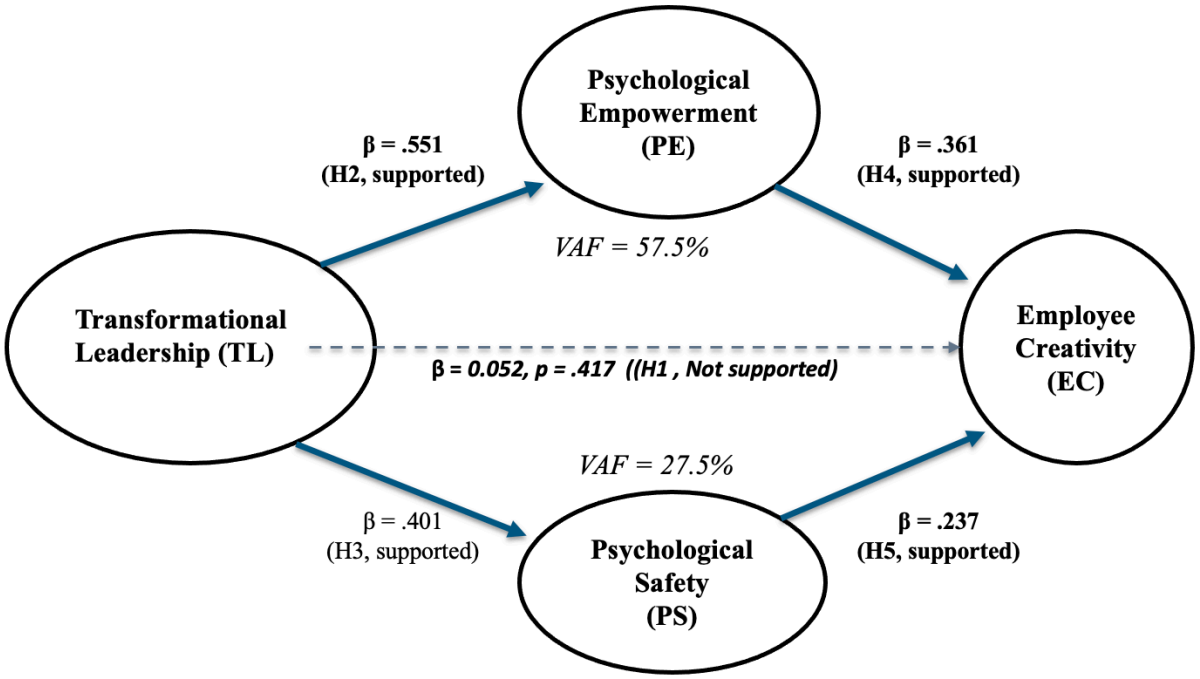
5.1 Introduction

Chapter Five of the thesis provides the summary of key empirical findings, drawing formal conclusions against each research question, and translating those conclusions into actionable guidance for Ethio Telecom and future researchers.

5.2 Summary of Study

The study investigated how transformational leadership influences employee creativity at Ethio Telecom through both psychological empowerment and psychological safety and intervening of individual power distance orientation as a moderating variable. This topic is critically important since the liberalization has occurred in the Ethiopian telecommunications sector, which has forced Ethio Telecom to abandon its monopoly for over a century, and to enter the fiercely competitive environment where rapid innovation and employee creativity are paramount for survival. SmartPLS 4.1.1.8 was used to carry out a systematic two-step Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. Step one validated the reliability and validity of the reflective measurement model and step two was to test the proposed structural relationships using a bootstrapping procedure with a total of 5000 subsamples. The analysis produced four core findings. First, transformational leadership has no direct effect on creativity, it works entirely through psychological mediators. Second, psychological empowerment is the dominant pathway, explaining 57.5% of the indirect effect by energizing employees' intrinsic motivation, sense of competence, and autonomy. Third, psychological safety is a parallel and secondary pathway, accounting for 27.5% of the indirect effect by reducing the interpersonal risk of creative expression. Together these two mediators explain 85% of the total effect. Fourth, individual power distance orientation does not moderate how transformational leadership activates either mediator, but it does independently suppress employees' baseline levels of both psychological empowerment and psychological safety.

Figure 8 *Final Empirical Model*



5.3 Conclusions

The findings collectively demonstrated that Ethio Telecom's ability to foster employee creativity is largely based on its psychological environment; the level of cognitive empowerment and interpersonal safety that employees experience in the workplace. Transformational leadership is one of the most important organizational levers for driving this climate. The training programs that focus on idealized leadership, individualized consideration, and intellectual stimulation in Ethio Telecom are thus the most strategic investments to drive employee creativity and to support their 'Next Horizon: Digital and Beyond 2028' strategic agenda. Transformational leadership only enhances employee creativity by two simultaneous and complementary mechanisms. Psychological empowerment is the primary mediating pathway, which mirrors the cognitive-motivational process where transformational leaders activate intrinsic motivation, competence, and independence in the work. Psychological safety is the second parallel pathway, reflecting the interpersonal risk-reduction process through which transformational leaders provide employees with the opportunity to share and express ideas without fear of being ridiculed or facing career retribution. The simultaneous operation of these two pathways indicates that at Ethio Telecom creativity is based on internal readiness and external relational safety. Transformational leadership and employee creativity: Transformational leadership does not enhance the creativity of employees at Ethio Telecom. The absence of a clear direct effect ($\beta = 0.052$, $p = 0.341$) shows that transformational leadership behavior-idealized influence, inspirational motivation, intellectual stimulation,

individualized consideration does not translate into tangible creative behavior without the psychological state to be mediated. This conclusion challenges simplistic, direct effect concepts of leadership drive creativity directly and supports indirect-only (full) mediation, which is consistent with recent studies (Koh et al., 2019; Wand & Yu, 2024).

Personal power distance orientation did not alter the effectiveness of transformational leadership in fostering psychological empowerment or psychological safety at Ethio Telecom. This in line with the universalist position of cross-cultural leadership theory and reflects that transformational leadership is effective to meet the basic psychological needs for meaning, growth and interpersonal respect that exist in an organization. However, power distance orientation did independently suppress both psychological states directly and is clearly a crucial aspect of Ethio Telecom employees' organizational psychology.

5.4 Theoretical Implication

As established in Chapter One, this study set out to address a critical geographic and contextual gap in organizational behavior literature, specifically the need to test Western and Asian leadership paradigms within an Ethiopian company. By empirically testing these relationships at Ethio Telecom, the findings of this research fulfill that objective, providing contributions that enhance the external validity of cross-cultural leadership and creativity models.

The findings of this research provide some of the deepest contributions to the literature on leadership, psychological states, and workplace creativity under an understudied emerging African economy context. This research advances Amabile's componential theory of creativity, indicating that transformational leadership does not directly produce employee creativity. This is supported by findings, such as Nguyen et al. (2022) in the Vietnamese telecommunications sector, proving that leaders are only environmental architects, and it is therefore necessary to establish the necessary psychological infrastructure for an innovation to take place.

Also, this thesis clarifies relative impact by testing psychological empowerment (ß = 0.199, f^2 = 0.115) and psychological safety (ß = 0.095, f^2 = 0.062). Thus, psychological empowerment predicts creativity more than psychological safety. It indicates that while psychological safety is essential for removing the friction of interpersonal fear and social risk (Edmondson, 1999), psychological empowerment acts as the main driver of creativity providing the intrinsic motivation (Spreitzer, 1995). One of the most theoretically interesting claims in the study is the statistical rejection of individual power distance orientation (PDO) as a boundary condition. Standard interpretations of Hofstede's (1980) cultural dimensions imply that employees who have high power distance orientation tend to resist egalitarian, empowering leadership.

However, interaction terms for empowerment (ß = 0.004, p = .922) and psychological safety (ß = 0.072, p = .195) were highly insignificant. The result also provides critical support for the accessibility universality hypothesis of transformational leadership. This means that transformational leadership, with its foundational principles of individualized consideration and intellectual stimulation, meets universal human needs for respect and personal growth, and therefore transcends an employee's inherent cultural norms of rigidly enforced, inequitable hierarchies.

5.5 Managerial/Practical Implication

Currently, the telecommunications environment is characterized by unprecedented technological volatility, rapid digitalization, driven by the continuous business need for innovation (Černý et al., 2026). Within this hyper-competitive environment, the innovative capacity of the workforce has emerged as the paramount determinant of sustainable competitive advantage. For decades, creativity at Ethio Telecom was optional because of the monopoly. Now, it is an existential necessity for the company because of market share.

The findings of this study yield several specific, evidence-based recommendations for Ethio Telecom's leadership and human resources management. First, Ethio Telecom is recommended to invest substantially in a structured, organization-wide transformational leadership development program that equips line managers and senior leaders with the specific behavioral competencies identified in this study as activators of psychological empowerment and psychological safety. Training modules should explicitly target: (a) individualized consideration-coaching leaders to demonstrate genuine interest in employees' professional growth aspirations and to provide tailored developmental feedback; (b) intellectual stimulation-equipping leaders with facilitation skills to encourage employees to question established assumptions and generate novel problem-solving approaches; and (c) inspirational motivation-developing leaders' ability to articulate a compelling, personally meaningful vision of the organization's digital transformation journey that connects individual roles to the broader strategic purpose. Given that the moderation analysis revealed no significant interaction between transformational leadership and power distance orientation, this training program need not be culturally segmented by employees' power distance profile. Transformational leadership behaviors appear to activate psychological empowerment and safety universally across the Ethio Telecom workforce, irrespective of individual cultural orientations. This conclusion has the practical advantage of enabling a standardized, cost-efficient leadership development curriculum without the complexity of cultural profiling.

Second, while power distance orientation does not moderate the leadership-psychological state relationship, it exerts significant negative direct effects on both psychological empowerment (β = -0.140, p = .003) and psychological safety (β = -0.120, p = .009). This indicates that employees with higher power distance orientations maintain lower baseline levels of empowerment and safety regardless of their leader's transformational behaviors. Ethio Telecom's human resource division should therefore design structural and cultural interventions to address this suppression effect directly. Recommended interventions include: (a) introducing participatory goal-setting processes that formally involve employees at all levels in departmental strategy discussions, signaling that employee input is institutionally valued; (b) establishing anonymous idea submission and feedback channels that reduce the interpersonal risk of creative expression for high power-distance employees who may be reluctant to voice ideas directly to authority figures.

Third, Ethio Telecom should add validated measures of psychological empowerment and safety to its annual employee engagement survey and link the results directly to managerial accountability. Team-level scores should be formal KPIs for line managers and department heads; those below the organizational benchmark should receive priority coaching, while those who show measurable improvement should be recognized through existing incentive structures. This turns psychological climate from being a discretionary leadership preference to an institutionally enforced responsibility. As psychological empowerment- especially the self-determination and impact sub-dimensions - is the main driver of employee creativity (β = 0.199, f^2 = 0.115), Ethio Telecom's HR division needs to assess current job designs against the degree of autonomy and visible contribution they provide employees. Three targeted interventions are recommended: (a) flexible tasking arrangements that allow employees to self-select projects or dedicate time to self-directed innovation; (b) clear performance feedback loops so employees can see how their work flows through to team and organizational outcomes; and (c) decentralization of operational decisions to frontline roles in customer experience and digital service design. These structural changes complement the empowerment generated by transformational leadership and are expected to raise creative performance independently of leadership quality.

5.6 Study Limitation

The main methodological limitation of this research is that it adopts a cross-sectional survey design. Although the literature review and advanced structural equation modeling techniques involved in establishing such directional relationships were established in the theoretical

aspects of the study, cross-sectional data from a single static point in time prevent the definitive assertion of causality. While broad theoretical models (like Amabile's Componential Theory) posit that leadership behaviors must precede psychological states, which in turn must precede creative actions, only longitudinal data over months or years can reveal how these complex factors might interact and feedback upon each other and develop dynamically over time.

A secondary methodological limitation pertains to the ongoing possibility of common method bias (CMB). All constructs were measured using self-report data from the same respondent at the same time, which may amplify common method variance and restrict the independence of leadership evaluations from psychological state assessments. Although procedural solutions (like the physical design of separating constructs in the survey instrument) and stringent statistical checks were achieved (inner VIF values stayed well below the highly conservative cut-off of 3.0, between 1.003 - 1.626), common method bias (CMB) remains an unavoidable limitation of all self-reported psychological survey data.

The study is narrowly geographically and contextually constrained to a single organization (Ethio Telecom). Although this study addresses a gap in non-Western and non-Asian leadership research, it limits the external validity and broader generalizability of the findings. The unique socio-economic dynamics in a former state monopoly during market liberalization and enormous technological expansion can yield psychological phenomena and leadership responses that may not be fully replicable in smaller private firms, non-profit organizations, in very different industries in the same country.

5.7 Recommendation for Future Research

Building upon the theoretical and empirical foundation established in this thesis, the following avenues for future research are recommended to further strengthen the literature on leadership and creativity:

Longitudinal Research Designs: We recommend that future studies should adopt longitudinal designs to be able to establish a strict causal relationship between leadership styles and creative outputs. By measuring transformational leadership at Time 1, psychological states (empowerment and safety) at Time 2, and employee creativity at Time 3, researchers can map the temporal flow of innovation.

Mixed Approach Method: We recommend that future studies incorporate qualitative insights via semi-structured interviews to gain deeper understanding how employees subjectively experience transformational leadership behaviors. Further, future research

should employ multi-source designs (e.g., supervisor ratings of employee creativity, peer ratings of psychological safety) to triangulate self-report data.

Exploring Alternative Boundary Conditions: Because power distance orientation was statistically not supported as a boundary condition within this research sample, future research should turn to other contextual factors that may determine the extent of transformational leadership effectiveness. We recommend that variables such as organizational climate for innovation, job complexity, perceived organizational support, or other cultural dimensions mapped by Hofstede (such as uncertainty avoidance and collectivism) to be critically examined, so that they can determine under what highly specific operational conditions transformational leadership leads to maximum creative returns.

Serial Mediation: We recommend that future studies should test the serial mediation model (Transformational leadership → Psychological empowerment→ Psychological safety → employee creativity) to examine whether psychological empowerment and safety operate sequentially rather than in parallel, as suggested by Han et al. (2022).

Exploring Another Alternative Leadership Style: Future studies should examine whether distinct leadership styles (such as servant, authentic or ethical) provide different or superior psychological benefits for creative performance.

Cross-Organizational Comparison: To enhance generalizability of these findings, we recommend for future studies to conduct cross-organizational comparison between public sectors in service industry.

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Appendices

Addis Ababa University
College of Business and Economics
Department of Management
Survey Questionnaires

Dear respondents,

My name is Luile Alemayehu, a double degree master's student at Addis Ababa University and Hochschule Mainz University of Applied Sciences. I am conducting this survey as part of my master's thesis on leadership and employee creativity. Your participation is kindly requested, and the data you provide will be used solely for academic purposes.

The questionnaire will take approximately 10–15 minutes to complete. All responses are anonymous and will be treated with strict confidentiality. If you have any questions, please contact me at luelalex212@gmail.com

Thank you for your time and contribution.

Sincerely,

Luile Alemayehu

Section 1: Demographics

1. Gender

A. Male B. Female

2. Age Group

A. 20–29 B. 30-39 C. 40 and above

3. Educational Qualification

A. Bachelor's Degree B. Master's Degree C. PhD

4. How long have you worked at Ethio Telecom?

A. Less than 5 years B. 6-10 years C. 11-20 years D. More than 20 years

Section 2: Main study variables

Instructions**:** Please indicate your level of agreement with the following statements: 1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

No	Items	1	2	3	4	5
	Transformational Leadership					
1	My leader communicates a clear and positive vision of the future					
2	My leader treats staff as individuals, supports and encourages their development					
3	My leader gives encouragement and recognition to staff.					
4	My leader fosters trust, involvement, and cooperation among team members					
5	My leader encourages thinking about problems in new ways and questions assumptions					
6	My leader is clear about his/her values and practices, which he/she preaches					
7	My leader instills pride and respect in others and inspires me by being highly competent					
	Psychological Empowerment					
8	The work I do is very important to me					
9	My job activities are personally meaningful to me					
10	The work I do is meaningful to me					
11	I am confident about my ability to do my job					
12	I am self-assured about my capabilities to perform my work activities					
13	I have mastered the skills necessary for my job					
14	I have significant autonomy in determining how I do my job					
15	I can decide on my own how to go about doing my work					

16	I have considerable opportunity for independence and freedom in how I do my job					
17	My impact on what happens in my department is large					
18	I have a great deal of control over what happens in my department					
19	I have significant influence over what happens in my department					
	Psychological Safety					
20	If you make a mistake on this team, it is often held against you (reverse code)					
21	Members of this team are able to bring up problems and tough issues					
22	People on this team sometimes reject others for being different (reverse code)					
23	It is safe to take a risk on this team					
24	It is difficult to ask other members of this team for help (reverse code)					
25	No one on this team would deliberately act in a way that undermines my efforts					
26	Working with members of this team, my unique skills and talents are valued and utilized					
	Employee creativity					
27	I suggest many creative ideas that might improve working conditions at the organization					
28	I often come up with creative solutions to problems at work					
29	I suggest new ways of performing work tasks					
30	I am a good source of creative ideas					
	Power distance orientation					
31	Managers should make most decisions without consulting subordinates					
32	It is frequently necessary for a manager to use authority and power when dealing with subordinates					
33	Managers should seldom ask for the opinions of employees					
34	Managers should avoid off-the-job social contacts with employees					
35	Employees should not disagree with management decisions					
36	Managers should not delegate important tasks to employees					