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| TRANSFORMACINIO LYDERYSTĖS<br>STILIAUS ĮTAKA DARBUOTOJŲ<br>ĮSITRAUKIMUI, ORGANIZACINIAM<br>ĮSIPAREIGOJIMUI IR PASITENKINIMUI<br>DARBU. | THE INFLUENCE OF<br>TRANSFORMATIONAL LEADERSHIP<br>STYLE ON EMPLOYEE ENGAGEMENT,<br>ORGANIZATIONAL COMMITMENT, AND<br>JOB SATISFACTION. |
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## INTRODUCTION

In the ever-evolving landscape of organizational management, transformational leadership, employee engagement, organizational commitment, and job satisfaction stand as cornerstones, playing a pivotal role in shaping the culture, dynamics, and overall success of an organization. The style in which leadership is executed can have profound implications on various sections and departments of an organization, most notably on employee engagement and organizational commitment. The relevance of understanding the influence of leadership style on these aspects cannot be overemphasized, especially in today's competitive business environment where employee satisfaction and commitment are paramount for organizational success and long-term operation.

The modern business environment is characterized by rapid changes, globalization, and increased competition. In such a scenario, organizations are constantly seeking ways to enhance their competitive advantage, and one of the key factors that can significantly influence an organization's success is its human capital. Employees, being the backbone of any organization, play a crucial role in its growth and sustainability. Their level of engagement in organizational processes and their commitment to the organization can significantly impact its overall performance and success.

Studies have explored the influence of organizational culture and leadership style on employees' job satisfaction, organizational commitment, and work motivation in the educational sector in Qatar. This research underscores the importance of understanding the interplay between leadership styles, organizational culture, and employee outcomes. Such insights are invaluable for organizations aiming to foster a positive work environment that promotes employee satisfaction, commitment, and motivation.

The influence of leadership style, employee commitment, work motivation, and work climate on job satisfaction and performance was also reviewed. And findings revealed that leadership style, when combined with employee commitment, work motivation, and a positive work climate, had a significant effect on job satisfaction. However, leadership style alone did not have a significant direct influence on employee performance. This suggests that while leadership style plays a role in shaping employee satisfaction, other factors such as commitment and motivation are crucial in determining performance outcomes.

The effects of organizational commitment, work motivation, and leadership style on employee performance have also been investigated. The study found that organizational commitment, work motivation, and leadership style all had a significant effect on employee performance.

This underscores the importance of leadership style in conjunction with other organizational factors in influencing employee outcomes.

Various research have offered useful insights into the examination of job satisfaction and its ramifications in the workforce. A thorough analysis of job satisfaction, outlining its complex character and its significant influence on both employee performance and organizational results was also undertaken. This fundamental research is crucial for comprehending the wide range of elements that influence job satisfaction and how they impact workplace interactions.

Research that delves deeper into the connection between job satisfaction and organizational results by examining the factors that influence organizational citizenship and in-role behaviors was also undertaken. The study clarifies the distinct impacts of internal and external job satisfaction elements on these behaviors, providing an understanding of the intricate relationship between employee contentment, and commitment, and how these are reflected in workplace behavior.

The studies provide valuable insights into the intricate relationship between leadership styles, employee engagement, organizational commitment, and job satisfaction. It is evident that while leadership style plays a significant role in shaping organizational outcomes, its influence is often intertwined with other factors such as employee commitment and motivation, which ultimately lead to enhanced job satisfaction.

For organizations aiming to enhance employee engagement and commitment, understanding the nuances of different leadership styles and their implications is crucial. Leaders should be cognizant of their leadership approach and its potential impact on employee outcomes. Moreover, organizations should invest in training and development programs to equip leaders with the skills and knowledge to adopt effective leadership styles that foster employee engagement and commitment.

In conclusion, the influence of leadership style on employee engagement and organizational commitment is a multifaceted relationship that warrants further exploration. As organizations continue to evolve in a rapidly changing business landscape, understanding these dynamics will be pivotal in driving organizational success.

**Problem** – The varying leadership styles adopted by organizational leaders have been observed to influence multiple departments of an organization, particularly employee engagement and organizational commitment. However, the dynamics of how specific leadership styles directly or indirectly impact these departments remains unclear. A lack of understanding in this area can lead to decreased employee engagement, reduced organizational commitment, and potentially hinder an organization's overall performance and growth.

**Research object** – Transformational leadership, employee engagement, employee organizational commitment, job satisfaction.

**Aim** – To investigate and explain the influence of transformational leadership on employee engagement, organizational commitment, and job satisfaction.

**Objectives:**

1. To discuss the scientific review of the transformational leadership style and its influence on employee engagement and organizational commitment.
2. Discuss the challenges and barriers various organizations face in instituting leadership styles that improve employee engagement and organizational commitment.
3. Design and conduct surveys or interviews targeting employees across various sectors to gather primary data on their perceptions of transformational leadership style and its impact on their engagement and commitment.
4. Analyze the collected data to identify patterns, correlations, or trends between specific leadership styles and levels of employee engagement and commitment.

**Research Methods.**

1. Comparative analysis of scientific literature: Extensive comparison of existing academic papers, articles, and studies related to transformational leadership styles and its influence on employee engagement and organizational commitment.
2. Quantitative Analysis: Use of structured surveys to gather data from a large sample of employees, followed by data analysis to identify patterns, correlations and subsequent solutions.



# **1. LITERATURE REVIEW**

## **1.1. Transformational leadership style**

The concept of transformational leadership has attracted significant attention within the field of organizational studies, with an emphasis on its effects on employee engagement and dedication to the organization. The dynamic nature of contemporary work environments requires a leadership approach that goes beyond mere motivation and inspiration, and instead actively engages people in the organizational process, thereby cultivating a heightened level of dedication.

Transformational leadership has proven to be highly effective in inspiring and encouraging employees, instilling a shared sense of purpose. Leaders adopting this style enhance employees' attitudes and behaviors by fostering flexibility, growth, and alignment with organizational goals (Appelbaum et al., 2015; Peng et al., 2020). The leadership style is positively associated with engagement and organizational commitment, demonstrating its capacity to drive meaningful change and innovation (Keskes, 2014). Furthermore, it reduces burnout, improves well-being, and strengthens employees' emotional connection to their work (Kara et al., 2013). These outcomes create a foundation for employees to adopt proactive behaviors, contributing significantly to organizational success (Srithongrungrung, 2011).

Transformational leadership positively impacts staff well-being, happiness, and motivation (Razzaq et al., 2020). It has been linked to increased job satisfaction, reduced turnover intentions, and heightened organizational performance. By fostering an inclusive and innovative environment, this leadership style encourages employees to align their goals with the organization's vision. As a result, employees demonstrate stronger loyalty and are less likely to withdraw from their roles (Rachma et al., 2022). Moreover, transformational leadership directly influences extra-role behaviors, encouraging employees to go beyond their formal job responsibilities to contribute to organizational growth (Srithongrungrung, 2011).

Transformational leadership is characterized by the following 5 dimensions: Idealized Influence, Inspirational Motivation, Intellectual Stimulation, Supportive Leadership and Personal Recognition, Individualized Consideration.

- Leaders act as role models, earning trust, respect, and admiration through their moral behavior and commitment. By setting an example, they inspire followers to emulate their actions (Abbas et al., 2012).
- Through clear communication and a compelling vision, leaders inspire employees, fostering motivation and emotional investment in shared objectives. This dimension is crucial for cultivating affective and normative commitment (Njoroge, 2015).
- Leaders challenge employees to think critically, question the status quo, and engage in creative problem-solving. This approach promotes innovation and enhances organizational and individual creativity (Ngo et al., 2022).
- Acknowledging and celebrating individual accomplishments strengthens emotional bonds between leaders and employees, fostering engagement and commitment (Ntalakos et al., 2022).
- Leaders offer personalized support and mentorship, addressing individual needs and aspirations. This approach builds trust and reinforces employees' loyalty and alignment with organizational goals (Peng et al., 2020).

By leveraging these five dimensions, transformational leadership stimulates employee involvement, enhances engagement, and nurtures organizational commitment. Employees in such environments are motivated to excel and align their personal goals with organizational objectives (Keskes, 2014; Gillet & Vandenberghe, 2014). This leadership style creates a workplace culture that emphasizes trust, innovation, and mutual respect, leading to higher productivity and improved organizational outcomes.

In conclusion, transformational leadership style offers a dynamic approach to improving employee engagement, job satisfaction, and organizational commitment. By fostering a culture of trust, innovation, and recognition, transformational leaders drive positive organizational change. The integration of its core dimensions into leadership practices ensures not only the well-being and growth of employees but also the overall success of the organization.

## **1.2.Employee engagement**

Employee engagement is a multidimensional concept in organizational behavior, encompassing an employee's emotional, psychological, and organizational connection to their work. It reflects the degree of involvement, commitment, and enthusiasm employees exhibit in their roles. Engaged employees view their work as a significant aspect of their lives, fully

participating and investing effort in their tasks. Achieving high levels of engagement requires balancing individual satisfaction, mental health, and alignment with organizational values, while managing the complex interactions between stress and incentives.

Employee engagement stems from intrinsic motivation, where employees feel a strong emotional connection to their roles. Individuals with high engagement levels demonstrate care for their responsibilities and are driven to exceed expectations (Brown, 1996; Chen & Chiu, 2009). Gratification from work, a sense of accomplishment, and happiness are key triggers for resilience and adaptability in overcoming challenges (Aslam et al., 2022).

Engagement is deeply influenced by organizational practices, leadership styles, and workplace culture. Transformational leadership, for instance, fosters engagement by creating environments that inspire, motivate, and align employees with organizational goals (Pham-Thai et al., 2018). High-performance HR practices and authentic leadership further enhance engagement by promoting innovation, trust, and transparent communication (Jiang & Men, 2017; Kunte & Rungruang, 2018).

Feedback and recognition are pivotal in strengthening employees' connection to their roles. Constructive feedback enhances employees' sense of accomplishment, while recognition reinforces their value within the organization (Li, 2018). These elements contribute to a sense of meaningfulness, which plays a greater role in engagement than factors such as safety and availability.

High levels of engagement lead to improved performance, productivity, and profitability, as well as increased staff retention and well-being (Kunte & Rungruang, 2018). Engaged employees are more likely to exhibit proactive behaviors, such as suggesting improvements and contributing to organizational goals (Thisera & Sewwandi, 2018).

Engaged employees possess a heightened understanding of customer needs, leading to enhanced customer satisfaction and loyalty. This connection strengthens the organization's competitive edge (Thisera & Sewwandi, 2018).

Delving into the dimensions of employee engagement, Rujipak and Limprasert (2016) present a dual perspective when examining employee engagement. The first component pertains to the level of an individual's involvement in a particular employment position, while the second dimension highlights the enthusiastic and proactive involvement that encompasses a willingness to improve one's job position in comparison to others. In addition to this, Li (2018) examines the psychological foundations of employee engagement. He proposes that although concrete incentives for job achievements are crucial, the feedback gained after completing a task is typically the most relevant part for employees. The feedback, which is

both relevant and constructive, plays a crucial role in strengthening an employee's sense of accomplishment and connection to the firm.

Engagement encourages innovative behaviors and the development of effective coping strategies to address workplace challenges. Engaged employees are better equipped to handle stress and adapt to dynamic environments (Kwon & Kim, 2020).

Social identity theory and identity-related stressors can account for this occurrence. When individuals identify with a group that they value, their involvement in this group becomes self-referencing and includes the interests of the organization into how they view themselves. The research conducted by Tajfel (1974), and even Snyder and Cistulli (2018), explore how employees, through strong identification with their job or organization, integrate this association into their self-concept. This deep level of identification fosters a robust sense of belonging and aligns individual and organizational interests, thereby enhancing commitment and performance.

While engagement offers numerous benefits, excessive job involvement can lead to negative consequences. Elevated stress levels and intensified job stressors can result from heightened engagement, potentially impacting employees' mental health and overall productivity (Kabat-Farr et al., 2019; Orgambidez & Extremera, 2020).

Transformational and authentic leadership are critical determinants of engagement. Leaders who provide inspiration, communicate effectively, and align team goals with organizational objectives foster higher levels of engagement (Pham-Thai et al., 2018; Jiang & Men, 2017).

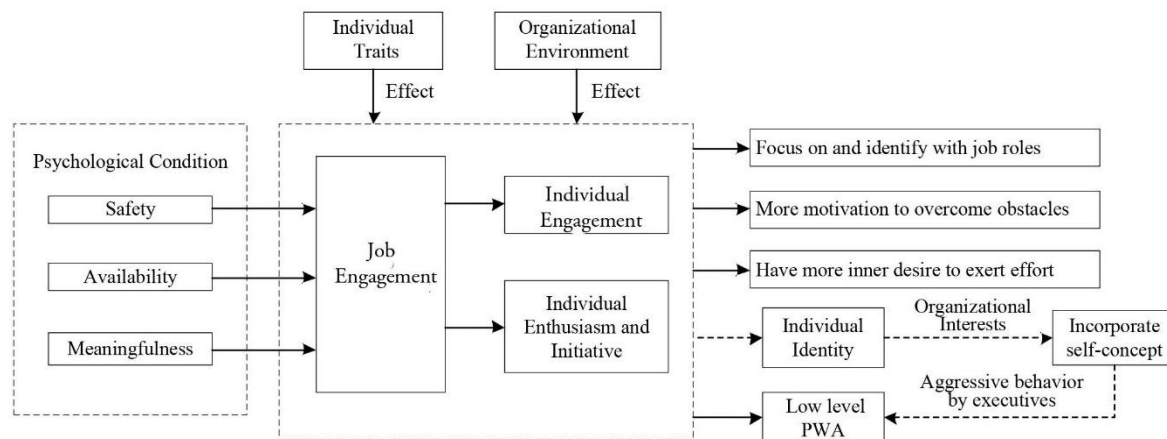
The job demands-resource model highlights the importance of factors such as feedback, rewards, task control, and involvement in promoting engagement (Ruyle et al., 2009). Strong working relationships with immediate managers and a supportive peer culture are also significant drivers of engagement.

A positive psychological climate, combined with individual traits such as self-evaluation, plays a vital role in fostering engagement. Employees who feel valued and supported are more likely to invest in their roles (Lee & Ok, 2015).

Another crucial issue is the impact of leadership on employee engagement. Liu et al. (2022) examine the impact of employees' perceptions of their superiors on their levels of engagement. Employees frequently perceive their superiors as representations of the organizational philosophy. Hence, the behavior exhibited by leaders has a substantial influence on the levels of engagement displayed by employees. Competent and optimistic leadership has the potential to cultivate strong commitment and involvement among employees. However, it can also result in perceived challenges and a decrease in perceived

work capacity (PWA), especially when employees believe that their contributions are not adequately appreciated or acknowledged.

**Figure 1.** *The effects of work engagement and their logical correlations*



Source: Liu, et al. (2022)

To summarize, employee engagement is a complex and dynamic concept influenced by emotional, psychological, and organizational factors. It requires a deliberate and balanced approach to nurture employees' well-being and align their goals with organizational objectives. By fostering engagement through effective leadership, meaningful work, and supportive practices, organizations can achieve improved performance, innovation, and employee retention, while addressing the challenges posed by excessive engagement levels.

### 1.2.1. The relationship between transformational leadership and employee engagement

Numerous studies have repeatedly emphasized that work satisfaction plays a crucial role in connecting transformational leadership with various employee outcomes, such as engagement and organizational commitment. These findings highlight the relationship between different leadership styles, job satisfaction, and various dimensions of employee engagement. They emphasize the importance of transformational leadership in establishing positive dynamics inside an organization. Job satisfaction is a key factor that motivates individuals to perform with passion. Job happiness is crucial for fostering morality, discipline, and employee performance in alignment with company objectives. Enhanced employee satisfaction fosters strong loyalty towards the company/organization, thereby enhancing employee performance.

Understanding and enhancing job satisfaction are key for organizations aiming to foster a committed, motivated, and productive workforce.

Transformational leaders inspire employees to take on more challenging responsibilities, promoting a sense of empowerment and fulfilment (Breevaart et al., 2013). By aligning individual goals with organizational objectives, leaders cultivate a work climate that enhances engagement and drives productivity (Buil, Martínez, & Matute, 2019).

Transformational leadership bridges relational identification and work engagement, emphasizing inclusion and intrinsic motivation. Liang et al. (2017) found that this leadership style encourages employees to align their identity with the organization, boosting engagement and facilitating employee voice behaviour. Similarly, Mazzetti et al. (2019) highlighted that transformational leadership strengthens employees' resilience, ensuring their well-being and commitment to their roles.

Delving further into this realm, the study conducted by Kovjanic et al. (2013) provided evidence supporting a favorable association between transformational leadership and work engagement. Furthermore, the findings indicated that work engagement is positively correlated with the quality, quantity, and persistence of work. This finding suggests that the implementation of transformational leadership not only has a positive impact on employee engagement, but also leads to improved work outcomes.

Research underscores the mediating role of engagement in linking transformational leadership to performance and organizational commitment. For instance, Nzarubara et al. (2020) found that work engagement serves as a bridge between transformational leadership and employee performance. Similarly, Jiatong et al. (2022) demonstrated that employee engagement partially mediates the relationship between transformational leadership, affective organizational commitment, and work performance.

The daily application of transformational leadership positively impacts engagement through optimism, which mediates the relationship between leadership and employee involvement in routine tasks (Tims et al., 2011). Leaders who foster intellectual stimulation encourage innovative thinking, enabling employees to develop creative solutions and increase their job involvement (Bezuidenhout & Schults, 2013).

Transformational leadership contributes to measurable improvements in work outcomes. Kovjanic et al. (2013) demonstrated that engaged employees perform at higher levels of quality, quantity, and persistence under transformational leaders. This heightened productivity stems from a deeply rooted sense of duty and alignment with organizational objectives.

Studies reveal that transformational leadership fosters a culture of open communication, where employees feel empowered to express ideas and participate actively in decision-making processes. This engagement translates into greater organizational commitment and a stronger sense of affiliation with the company (Liang et al., 2017).

Transformational leadership has a profound impact on employee well-being. Leaders who show authentic concern and empathy establish strong leader-follower connections, making employees feel valued and supported. This creates a sense of obligation among employees to reciprocate through enhanced engagement and commitment (Mazzetti et al., 2019; Bezuidenhout & Schults, 2013).

In conclusion, transformational leadership plays a pivotal role in cultivating employee engagement, which serves as a critical driver of organizational success. By inspiring, intellectually challenging, and supporting their teams, transformational leaders foster environments that promote resilience, innovation, and job satisfaction. The collective findings from empirical studies highlight the significance of transformational leadership in achieving higher performance, deeper employee commitment, and enhanced organizational outcomes. Leaders who prioritize individualized consideration, intellectual stimulation, and relational motivation create a workforce that is not only highly engaged but also aligned with the long-term goals of the organization.

### **1.3.Job satisfaction as a mediator**

Transformational leadership is widely recognized for its ability to inspire and motivate employees, significantly influencing their attitudes, behaviors, and overall organizational outcomes. A core element of this influence lies in the role of **job satisfaction**, which serves as a key mediator between transformational leadership, employee engagement, and organizational commitment.

Research has demonstrated that transformational leaders positively impact job satisfaction by creating supportive and motivational work environments. Huang and Huang (2020) found that job satisfaction mediates the relationship between transformational leadership, employee engagement, and organizational commitment. This highlights how leadership practices that inspire and motivate employees can directly enhance their workplace satisfaction, leading to greater engagement and loyalty to the organization.

Sambung et al. (2021) observed a similar mediating effect of job satisfaction within public service sectors, emphasizing that leadership styles profoundly shape employees' workplace

happiness and, consequently, their commitment levels. Likewise, Ramlawati et al. (2023) provided empirical evidence that job satisfaction plays a partial mediating role in the relationship between transformational leadership, employee engagement, and organizational commitment. These findings suggest that while job satisfaction is a critical factor, additional variables may also influence these dynamics.

Studies across various industries have repeatedly highlighted the importance of job satisfaction in fostering positive employee outcomes. For example, Panchal et al. (2022) found that permanent nurses in India demonstrated greater job satisfaction than their temporary counterparts, attributing this to the stability and security of their roles. This increased satisfaction translated into stronger organizational commitment, underscoring the importance of secure employment in retaining skilled personnel.

Luu and Phan (2020) expanded on these findings, demonstrating that transformational leadership not only improves job satisfaction but also strengthens affective and normative commitment to organizational change. This reveals the intricate ways in which job satisfaction impacts different dimensions of employee commitment, particularly during periods of organizational transformation.

The relationship between motivation, job satisfaction, and leadership is multifaceted. Hajiali et al. (2022) discovered that while some forms of motivation positively influence job satisfaction, others may have detrimental effects. This underscores the need for organizations to carefully evaluate their motivational strategies to ensure they align with employee well-being and satisfaction.

Job satisfaction is a pivotal factor in driving employee engagement, productivity, and organizational success. When employees feel satisfied with their roles, they are more likely to perform with passion, maintain discipline, and align their efforts with organizational objectives. Enhanced job satisfaction fosters loyalty and reduces turnover, ultimately leading to improved organizational performance.

Additionally, the research highlights the need for organizations to prioritize job satisfaction as a strategic focus in human resource management. Reviews emphasize that understanding and enhancing job satisfaction across various geographical and cultural contexts is critical for fostering a committed and motivated workforce.

To summarize, job satisfaction emerges as a central factor in the relationship between transformational leadership and key employee outcomes, including engagement and organizational commitment. Transformational leaders who cultivate a supportive and inspiring work environment enhance employees' job satisfaction, which in turn drives their



motivation, loyalty, and performance. By focusing on job satisfaction as a critical component of leadership strategy, organizations can build a resilient, committed, and high-performing workforce that aligns with their long-term objectives. These findings underscore the necessity for leaders and human resource practitioners to prioritize job satisfaction in developing sustainable organizational success.

### **1.3.1. The relationship between transformational leadership and job Satisfaction**

Transformational leadership significantly influences job satisfaction, fostering a positive work environment that enhances employee engagement, performance, and organizational outcomes. Numerous empirical studies highlight the robust connection between transformational leadership practices and increased job satisfaction, illustrating its critical role across diverse organizational contexts.

Munir, Rahman, Malik, and Ma'amor (2012) found a strong correlation ( $r = .725$ ) between transformational leadership and job satisfaction, demonstrating the substantial positive impact transformational leaders have on employee contentment. Similarly, Braun et al. (2013) established that this effect is observable at both individual and team levels, highlighting the cascading influence of transformational leadership throughout an organization.

Transformational leadership not only enhances job satisfaction but also reduces disengagement behaviors, such as job and work withdrawal (Abelha et al., 2018). By fostering a supportive and engaging environment, transformational leaders mitigate factors that contribute to employee dissatisfaction and disengagement.

Yıldız and Şimşek (2016) emphasized the mediating role of trust and self-efficacy in the relationship between transformational leadership and job satisfaction. Leaders who build trust within their teams and enhance employees' belief in their own capabilities significantly boost workplace satisfaction.

Chi et al. (2023) investigated the mediating role of job satisfaction between transformational leadership and job performance, finding that both financial and non-financial rewards amplify the positive effects of transformational leadership. This underscores the importance of complementing leadership practices with tangible and intangible incentives to enhance job satisfaction.

In the healthcare sector, Wang, Chontawan, and Nantsupawat (2012) found a strong positive relationship between nurse managers' transformational leadership and the job satisfaction of clinical nurses. Similarly, in education, Normaini et al. (2022) demonstrated the critical role

of transformational leadership in enhancing teacher job satisfaction and motivation. These findings highlight the versatility and adaptability of transformational leadership across various professional settings.

Transformational leadership positively influences employee performance by boosting job satisfaction. Mangkunegara and Miftahuddin (2016) showed that the combined effects of transformational leadership and job satisfaction lead to improved individual performance. Sutrisno et al. (2023) further extended this link to organizational citizenship behavior, illustrating how satisfied employees contribute to a culture of dedication and involvement.

Braun et al. (2013) highlighted that job satisfaction mediated by transformational leadership positively impacts team performance, emphasizing its domino effect on organizational productivity. This correlation extends to creating a culture of organizational commitment, as demonstrated by the work of Sutrisno et al. (2023), which links transformational leadership to a broader organizational culture of engagement.

In conclusion, transformational leadership has a profound and multifaceted impact on job satisfaction. By fostering trust, offering intellectual stimulation, and demonstrating genuine care, transformational leaders cultivate a work environment that promotes employee contentment and loyalty. This increased job satisfaction translates into reduced disengagement, higher productivity, and stronger organizational performance. The findings across various studies emphasize the critical role of transformational leadership in building a committed, motivated, and high-performing workforce, underscoring its importance as a strategic approach in human resource and organizational management.

#### **1.4. Organizational commitment**

Organizational commitment is a multifaceted concept that reflects employees' psychological and emotional connection to their organization. It plays a crucial role in shaping organizational culture, influencing employee behavior, and driving organizational success.

Organizational commitment encompasses the alignment of employees with their organization's goals and values, as well as their dedication to maintaining their membership within the organization. Larkey and Morrill (1995) and Inanlou and Ahn (2016) described it as a communication process that contributes to the formation of organizational cultures, emphasizing identification with organizational structures and strategies. Nguyen and Dang (2023) further highlighted this commitment as a profound inclination to stay affiliated with an organization, actively contribute to its goals, and embrace its values.

The framework by Meyer and Allen (1991) categorizes organizational commitment into three dimensions:

- **Affective Commitment:** This refers to an employee's emotional attachment to the organization, characterized by alignment with its goals and values. Employees with strong affective commitment remain with the organization out of personal desire and loyalty.
- **Normative Commitment:** Normative commitment stems from a sense of obligation to remain with the organization, driven by moral principles, social norms, and a reciprocal sense of loyalty. Employees feel morally bound to maintain their employment relationships.
- **Continuance Commitment:** This dimension relates to the perceived costs of leaving the organization. Employees remain because they recognize the investments they have made, such as time, effort, or benefits, and view leaving as financially or professionally disadvantageous.

Organizational commitment is shaped by numerous factors, including leadership styles, workplace culture, and employee satisfaction. Aziz et al. (2021) identified participative climates, teamwork, and promotion prospects as critical elements influencing commitment. Chegini et al. (2019) highlighted that commitment reflects employees' loyalty and behavior toward achieving organizational objectives.

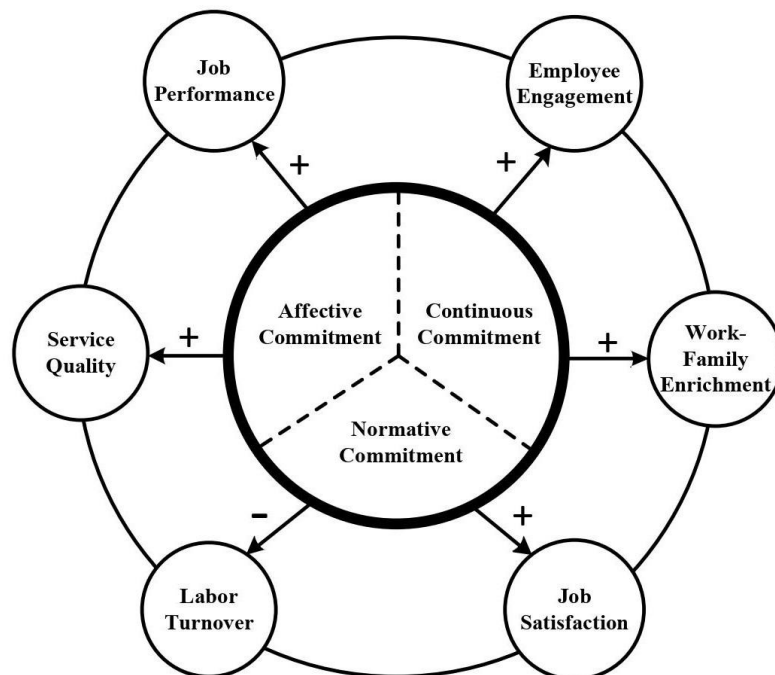
HR strategies significantly impact organizational commitment. Ghosh et al. (2022) emphasized that employee-friendly policies, career development opportunities, and effective appraisals positively influence commitment. Similarly, Ahmad et al. (2018) pointed out that reciprocal relationships between organizations and employees foster loyalty.

Organizational commitment is closely linked to job satisfaction, emotional intelligence, and organizational citizenship behavior. Studies by Devece et al. (2016) and Ahad et al. (2021) revealed that commitment enhances employees' willingness to exceed formal job requirements, fostering collaborative and productive workplaces.

In education, Normaini et al. (2022) demonstrated that transformational leadership among school principals enhances teachers' performance and job satisfaction, reinforcing commitment. In healthcare, Dinc et al. (2018) linked organizational commitment to improved communication, care quality, and reduced turnover in nursing.

Commitment contributes to improved job performance, innovation, and reduced turnover. Iqbal et al. (2021) demonstrated its critical role in driving innovation within SMEs. Moreover, Köllen et al. (2020) observed that commitment mitigates work tension and reduces the likelihood of employees leaving the organization.

**Figure 2.** *Dimensions of organizational commitment and the factors that influence them*



*Source:* Liu, et al. (2022)

Organizational commitment extends beyond individual loyalty, representing a strategic asset for sustaining organizational performance and resilience. Li (2022) positioned it as a fundamental concept in strategic human resource management, integral to building robust psychological contracts between employees and employers.

In conclusion, organizational commitment manifests as loyalty, emotional investment, and sustained effort from employees toward achieving organizational goals. It is a dynamic and multidimensional construct influenced by affective, normative, and continuance factors. By fostering environments that promote trust, engagement, and reciprocal relationships, organizations can enhance commitment levels, thereby boosting performance, innovation, and employee retention. This underscores the importance of commitment as a cornerstone for long-term organizational success.

#### **1.4.1. The relationship between transformational leadership and organizational commitment**

Transformational leadership stands out by its capacity to inspire, stimulate, and authorize employees, resulting in increased organizational dedication. Transformational leadership plays a pivotal role in fostering organizational commitment by inspiring, motivating, and cultivating a sense of purpose among employees. Research highlights the positive correlation between transformational leadership and various dimensions of organizational commitment, including affective, normative, and continuance commitment, across diverse sectors and contexts.

Transformational leaders enhance organizational commitment by motivating employees to exceed expectations, fostering a sense of institutional identity, and promoting collaboration. Keskes (2014) and Udin (2020) found that transformational leadership behaviors, such as inspirational motivation and guidance, significantly boost employee commitment and create productive relationships within organizations. This leadership style also strengthens discretionary effort, leader satisfaction, and overall leadership effectiveness (Yahaya & Ebrahim, 2016).

Studies show that transformational leadership has a profound impact on organizational commitment across various industries. Özkaya and Akin (2023) and Feizi et al. (2014) highlighted its influence in education, where idealized influence and inspirational motivation significantly enhance teachers' commitment. In law enforcement, Mohd and Arshad (2019) observed that transformational leadership fosters teamwork performance and commitment. Similarly, Mesu et al. (2015) reported a stronger impact of transformational leadership on commitment within SMEs compared to manufacturing companies.

Transformational leadership fosters job satisfaction, which mediates the relationship between leadership style and organizational commitment. Studies by Anshu and Upadhyay (2017) and Silva and Mendis (2017) demonstrated that employees working under transformational leaders report higher job satisfaction and, consequently, stronger commitment. Furthermore, Jain and Duggal (2018) found that job autonomy and emotional intelligence enhance the connection between transformational leadership and commitment, emphasizing the interplay between these factors in promoting dedication.

Employee engagement acts as a bridge between transformational leadership and organizational commitment. Biswas and Bhatnagar (2013) established a strong link between engagement and commitment, highlighting their combined influence on performance. Surya

et al. (2022) demonstrated that transformational leadership enhances employee performance by fostering organizational commitment, underscoring its importance in driving organizational outcomes.

Organizational commitment positively influences service quality and customer satisfaction. Chi Keung et al. (2011) showed that employees with strong commitment deliver higher service standards, contributing to customer loyalty and positive recommendations.

Anastasios et al. (2014) emphasized the role of affective commitment in balancing work and family responsibilities. Employees with strong emotional connections to their organizations are better equipped to manage conflicts between work and family, leading to greater job satisfaction and stability.

Commitment, particularly affective commitment, reduces turnover intentions. Yin-Fah et al. (2010) found a strong negative correlation between affective commitment and the likelihood of employees quitting, demonstrating that dedicated employees are more likely to remain with their organizations.

While the positive effects of transformational leadership on organizational commitment are well-documented, some studies highlight complexities. Pratolo et al. (2021) found no direct relationship between transformational leadership, organizational commitment, and university performance, suggesting that the connection between these factors may be multifaceted and context-dependent.

In conclusion, transformational leadership is a critical driver of organizational commitment, enhancing employee loyalty, satisfaction, and performance. Through motivational and inspirational practices, transformational leaders create environments that foster emotional connections, reduce turnover intentions, and improve organizational outcomes. The research underscores the significance of transformational leadership in building committed workforces across sectors while acknowledging the nuanced and context-specific nature of its impact.

### **1.5. Challenges and barriers faced in implementing transformational leadership in companies**

Transformational leadership has a significant impact on improving employee engagement and organizational commitment, fostering motivation, adaptability, and a sense of belonging. However, its implementation faces a variety of challenges that organizations must address to harness its full potential.

Not all leaders possess inherent transformational qualities, such as charisma, the ability to inspire, or individualized consideration (Udin, 2020). Leaders need specific training and development programs to cultivate these skills effectively (Scaunasu, 2012).

Transformational leadership requires adaptation to diverse cultural and organizational contexts. In high power-distance cultures or lean manufacturing settings, leaders may face resistance due to concerns over hierarchy and reputation (Li et al., 2015). This highlights the necessity of culturally sensitive approaches to leadership.

While transformational leadership fosters adaptability and change, it can also lead to financial strain and strategic risks. Liu (2021) emphasized that leaders must balance visionary goals with risk management and organizational resilience to avoid neglecting these critical aspects.

The effectiveness of transformational leadership depends on organizational dynamics, such as decision-making autonomy, task variety, and feedback availability (Gillet & Vandenberghe, 2014). Additionally, its impact varies based on reporting relationships; for example, project managers exhibit a weaker correlation with employee engagement and commitment than line managers (Keegan & Hartog, 2004).

Transformational leadership's influence differs across employee roles and identities. While it encourages adaptability and proactive behaviors in employees with weaker corporate identities (Wang et al., 2017), it may also hinder performance under certain conditions (Vipraprastha et al., 2018).

Transformational leadership can increase challenge-related stresses and employee pressure to excel (Lin et al., 2020). Although it boosts well-being and reduces burnout in industries like hospitality (Kara et al., 2013), managing stress is a critical consideration for sustainable success.

Training and skill enhancement for leaders are critical. Scaunasu (2012) emphasized the importance of ongoing learning to help managers adopt transformational leadership practices effectively.

Transformational leadership positively influences employee well-being by providing developmental feedback and supporting stress management (Lin et al., 2020). It also encourages job crafting and adaptability, leading to enhanced engagement and reduced burnout.

Transformational leadership often exerts a stronger indirect influence through mediators like job satisfaction (Fardillah et al., 2018). By enhancing job satisfaction, organizations can amplify the impact of leadership on commitment and engagement.

In industries like IT, transformational leadership boosts employee creativity by increasing self-efficacy and encouraging knowledge sharing (Mittal & Dhar, 2015). These attributes contribute to fostering innovative and proactive workplace cultures.

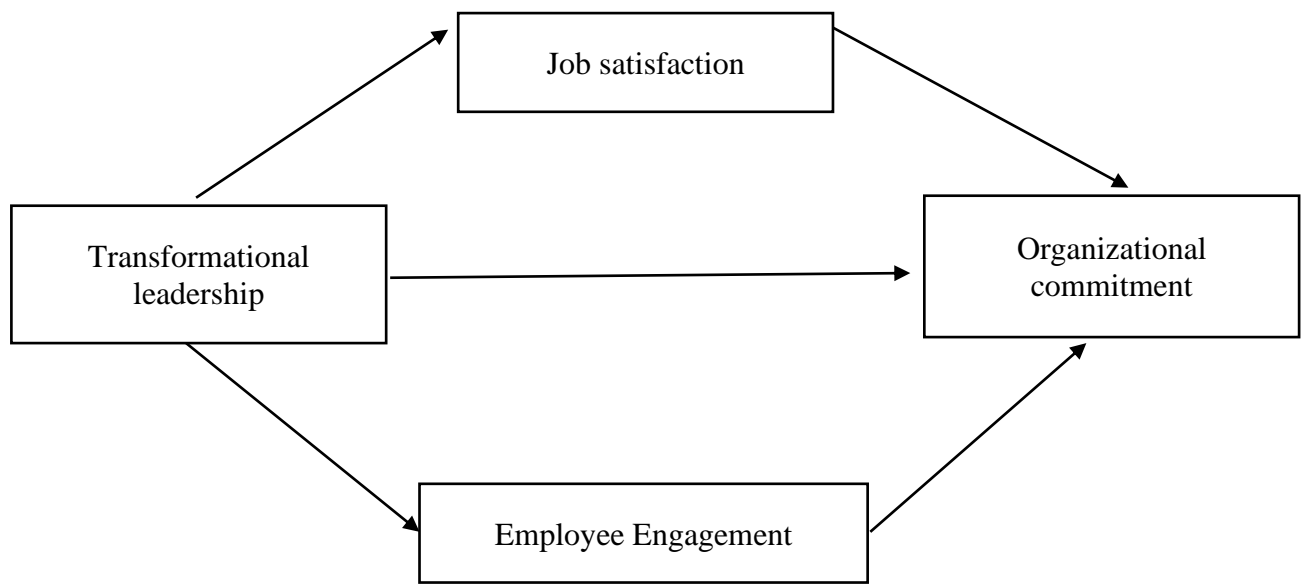
Leaders must tailor their approaches to align with specific organizational needs, such as feedback mechanisms, task structures, and employee roles (Gillet & Vandenberghe, 2014). For example, transformational leadership in small and medium-sized enterprises (SMEs) has shown stronger effects on organizational commitment than in larger manufacturing firms (Mesu et al., 2015).

In conclusion, transformational leadership offers immense potential for improving employee engagement and organizational commitment by fostering motivation, adaptability, and creativity. However, successful implementation requires addressing challenges such as skill deficiencies, cultural barriers, and contextual variability. By investing in leadership development, tailoring approaches to organizational contexts, and focusing on indirect influences like job satisfaction, organizations can maximize the positive impacts of transformational leadership. This approach not only enhances employee well-being and performance but also builds a committed and innovative workforce capable of driving long-term organizational success.

Based on the literature review and scientific research performed on the influence of transformational leadership on employee engagement, organizational commitment, and job satisfaction, the proposed conceptual model is shown in Figure 4. Therefore, the aim of this model is to empirically prove the relationship between transformational leadership, employee engagement, organizational commitment, and job satisfaction. And to test if job satisfaction mediates between transformational leadership and organizational commitment.



**Figure 3.** *Conceptual Framework*



*Source:* Created by the author.

## 2. METHODOLOGY FOR THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP STYLE ON EMPLOYEE ENGAGEMENT, ORGANIZATIONAL COMMITMENT, AND JOB SATISFACTION

The first section of this chapter presents the methodologies used to gather and analyze data in the research on the factors that influence employee engagement and corporate results. Furthermore, it addresses the issues about the study's organizational framework. The second half of the chapter is dedicated to the exposition of the research instrument.

### 2.1. Research Methods and Their Application

This work aims to make a model of the influence of transformational leadership style on employee engagement, organizational commitment, and job satisfaction. The methods of theoretical analysis, empirical research, and statistical analysis were used to achieve the goal.

**Theoretical analysis method:** A review of the scientific literature was conducted, during which the work-related scientific literature was analyzed and described.

**Empirical research method:** The survey research approach was used. This type of inquiry was chosen in the context of past studies by Hemsworth et al (2013), Schaufeli and Bakker (2004), Meyer et al. (1993), Montuori et al, (2022), to determine the influence of transformational leadership style on employee engagement, organizational commitment, and job satisfaction.

**Research object:** Transformational leadership style, employee engagement, organizational commitment, and job satisfaction.

**Research Aim:** To explore the impact of transformational leadership style on enhancing employee engagement, deepening organizational commitment, and improving job satisfaction levels within diverse workplace settings.

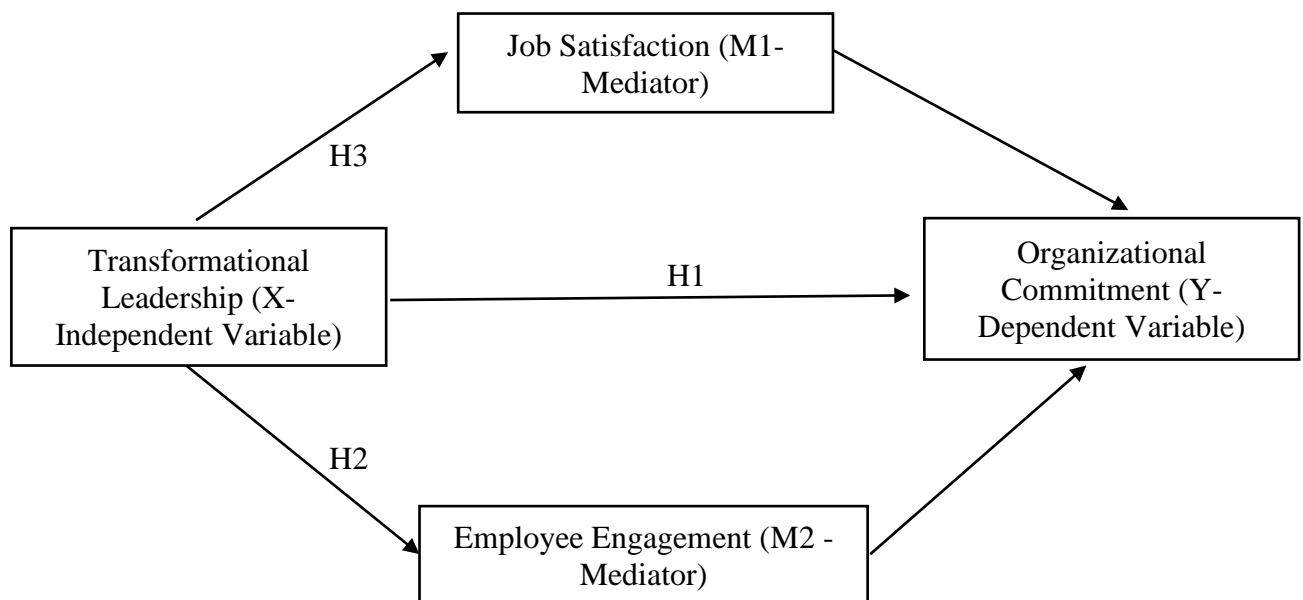
#### **Research objectives:**

1. Identify the respondents' perception of transformational leadership style, employee engagement, organizational commitment, and job satisfaction in the organizations operating in Nigeria, using a structured questionnaire survey method.
2. Determine the reliability and internal consistency of the research questionnaire, using the Cronbach alfa coefficient.

3. Determine the normality of data distribution using Kolmogorov - Smirnov and Shapiro – Wilk tests.
4. Identify the differences in evaluations of studied variables according to demographic and organizational characteristics of respondents using T-test and ANOVA.
5. Evaluate the impact of transformational leadership style on employee engagement and organizational commitment on job satisfaction.

Variables of the research: To conduct the empirical research, one independent variable (X), 2 mediators (M1 and M2), and a dependent variable (Y) were selected, corresponding to the following constructs: X – Transformational leadership; M1 – Job Satisfaction; M2 – Employee Engagement, Y – Organizational Commitment (See Research Model, Figure 4).

**Figure 4. Research Model**



*Source:* Created by the author.

The following hypotheses were formulated for the research:

**H1a Transformational leadership positively influences affective organizational commitment.**

**H1b Transformational leadership positively influences continuance organizational commitment.**

**H1c Transformational leadership positively influences normative organizational commitment.**

Research has consistently demonstrated that transformational leadership, characterized by inspiring followers to achieve extraordinary outcomes and fostering an environment of intellectual stimulation and consideration for individual needs, has a positive influence on organizational commitment (Avolio, Walumbwa, & Weber, 2009). This relationship underscores the influence of transformational leadership across various dimensions of organizational commitment: affective, continuance, and normative (Meyer & Allen, 1991). Such leadership enhances employees' affective attachment to the organization, their perceived cost of leaving (continuance commitment), and their sense of obligation to stay (normative commitment).

Furthermore, the influence of transformational leadership on these dimensions of organizational commitment is often mediated by job satisfaction. Employees who find their work environments intellectually stimulating and personally gratifying are more likely to develop deeper organizational commitment (Judge & Piccolo, 2004). Transformational leaders, by addressing individual needs and promoting a positive work environment, significantly contribute to job satisfaction, which in turn enhances employees' engagement and commitment to the organization (Bass, 1985).

In summary, according to hypotheses H1a, H1b, and H1c, transformational leadership plays a pivotal role in fostering job satisfaction, which subsequently strengthens affective, continuance, and normative organizational commitment. This framework illustrates the critical role of transformational leadership in enhancing a work environment that not only satisfies but also engages employees, thereby increasing their commitment to the organization.

**H2a Employee engagement mediates the relationship between transformational leadership and affective organizational commitment.**

**H2b Employee engagement mediates the relationship between transformational leadership and normative organizational commitment.**

**H2c Employee engagement mediates the relationship between transformational leadership and continuance organizational commitment.**

Employee engagement, influenced by job satisfaction, acts as a pivotal factor in enhancing organizational commitment. Engaged employees, who are both satisfied with their jobs and deeply involved in their work, are more likely to develop a strong commitment to their organization, reflected in their willingness to go above and beyond for the success of the organization (Albrecht, Bakker, Gruman, Macey, & Saks, 2015).

In essence, H2a, H2b, and H2c delineates a pathway where transformational leadership initiates a chain reaction starting with job satisfaction, leading to employee engagement, and culminating in organizational commitment. This hypothesis underscores the interconnectedness of these constructs and the pivotal role of transformational leadership in fostering a committed workforce.

**H3a Job Satisfaction mediates the relationship between transformational leadership and affective organizational commitment.**

**H3b Job Satisfaction mediates the relationship between transformational leadership and normative organizational commitment.**

**H3c Job Satisfaction mediates the relationship between transformational leadership and continuance organizational commitment.**

The relationship between transformational leadership and organizational commitment is believed to be primarily influenced by work satisfaction acting as a mediating factor. This viewpoint is consistent with the theoretical framework proposed by Bass (1985), who contended that transformational leadership boosts employee motivation and happiness, resulting in increased organizational commitment (Bass, 1985). Additional empirical research is necessary to validate this mediation model and ascertain the degree to which job satisfaction functions as a mediator in this dynamic. This research has the potential to offer useful insights into how strategic leadership methods can be used to enhance employee engagement and commitment.

At the end of the literature analysis, a summarizing research model (Fig. 5) describing the influence of variables on employee results is presented. The constructs used in the study are listed in Table 1.

**Table 2.** *Definitions of quantitative research constructs and measurement scales*

| Constructs                  | Theoretical definition   | Survey  |
|-----------------------------|--|---|
| Transformational Leadership | Transformational leadership is defined as a leadership approach that causes change in individuals and social systems. This style of leadership creates valuable and positive change in the followers with the end goal of developing followers into leaders. (Northouse, 2018).  | The measurement of transformational leadership behavior is done using the Multifactor Leadership Questionnaire Short Form (MLQ 5X).<br>Scale: 4 Scales  |
| Employee Engagement         | Employee engagement is defined as the level of an employee's psychological investment in their organization. (Schaufeli et al, 2002)   | The Utrecht Work Engagement (UWES-17) Scale is used to determine the concept of employee work engagement.<br>Scale: 3 scales.   |
| Organizational Commitment   | Organizational commitment refers to the psychological attachment and loyalty an employee feels towards their organization. It encompasses the employee's emotional bond to the organization, their willingness to exert effort on behalf of the organization, and their desire to maintain membership. (Meyer and Allen ,1991) | The Allen and Meyer's Three Component Model of Organizational Commitment Scale is used to determine the level of organizational commitment an employee feels to their organization.<br>Scale: 3 scales. |
| Job Satisfaction            | Job satisfaction is defined as the extent to which employees feel content with their jobs, encompassing their attitudes and feelings about their work. It reflects the degree of pleasure or happiness their job induces and is considered an important indicator of occupational well-being. (Spector, 1997)                  | The JSS (Job Satisfaction Survey) is used to analyze behaviors toward job satisfaction.<br>Scale: 4 scales.   |

*Source:* Created by the author.

The study examines the entire population of Nigerian employees within this sample, aiming to assess the impact of various factors on Nigerian workers. This assessment considers the number of employees in Nigerian companies, estimated at approximately 14.23 million according to the National Bureau of Statistics (2024).

**Table 2.** *The comparison of the sample sizes*

| Author(s)   | Name of the article   | Sample Size |
|---|---|-------------|
| Hemsworth,<br>David &<br>Muterera,<br>Jonathan &<br>Baregheh,<br>Anahita. (2013). | Examining Bass's Transformational Leadership In Public Sector Executives: A Psychometric Properties Review. | 372         |
| Schaufeli, W. B.,<br>& Bakker, A. B.<br>(2004)                                    | Utrecht Work Engagement Scale: Preliminary manual (Version 1.1).  | 2,313       |
| Meyer, J. P.,<br>Allen, N. J., &<br>Smith, C. A.<br>(1993)                        | Commitment to organizations and occupations: Extension and test of a three-component conceptualization.     | 1,265       |
| Spector, P. E.<br>(1985)  | Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey.                | 3,148       |
| All Respondents   |   | 7,089       |

*Source:* Compiled by the author.

This study utilized a sample size of 354 respondents, sufficient to investigate the influence of transformational leadership on employee engagement, organizational commitment, and job satisfaction within a population of approximately 14,230,000 employees in Nigerian organizations. The instruments used in this study, including the Multifactor Leadership Questionnaire, Utrecht Work Engagement Scale, Allen and Meyer's Organizational Commitment Scale, and Job Satisfaction Survey, are well-validated and reliable, these tools enhance the quality and reliability of the data.

The sample size corresponds to a margin of error of 5.21% with a confidence level of 95%, and the sample size calculation is based on the formula for determining the required sample size for a population proportion:

$$n = \frac{Z^2 \cdot p \cdot (1 - p)}{e^2}$$

Where  $Z = 1.96$  (corresponding to a 95% confidence level),  $p = 0.5$  (assumed population proportion to maximize sample size), and  $e = 0.052$  (adjusted margin of error). Given the population size of 14.23 million employees and aiming for a survey reliability with a 5.21% error margin, a sample size of 354 respondents was determined to be sufficient for the study. Furthermore, the sample is representative of the target population, encompassing diverse demographic and organizational contexts. This diversity ensures that the findings are broadly applicable and relevant to the study's aims. By leveraging validated instruments and a representative sample, the study achieves high-quality and credible results despite the slight adjustment in precision. Therefore, the findings of this study are robust, credible, and meaningful within the context of Nigerian organizations.

#### **Research stages:**

1. Preparation of research methodology: research problem, object, goal, tasks, research method, hypotheses, respondent, and necessary research sample.
2. Compilation of a questionnaire.
3. Carrying out empirical research.
4. Analysis, systematization, and evaluation of research data.
5. Summary of research results.
6. Presentation of conclusions and recommendations.

**Method of statistical analysis.** The data obtained from the empirical investigation will be analyzed using the statistical analysis software program - SPSS. A descriptive statistical analysis was performed to examine the social and demographic data of the survey participants. This analysis involved determining the percentage distribution of respondents based on their gender, age, education, occupation, work experience, position in the organization, and years in their current position. To determine the statistical significance of the parameters under investigation, a confidence level of  $\alpha = 0.05$  and a significance level of  $p < 0.05$  were selected. To assess the coherence and accuracy of the statements in a questionnaire and their alignment with the research value, the consistency of the statements in the group was examined using Cronbach's alpha coefficient.



## **2.2. Research design and method**

Multiple research methodologies exist. The following are methods for management and business research as outlined by Wedawatta and Amaratunga in 2011:

- Survey;
- Experiment;
- Action research;
- Case study;
- Grounded theory;
- Ethnography;
- Cross-sectional studies.

For primary data collection, A survey technique, specifically a questionnaire, was selected for primary data gathering. Surveys are utilized to gather data that will assist research teams in various aspects, such as selecting samples, formulating questions, and determining themes. It is an effective approach for extracting abundant information from multiple sources. The selection of respondents can be determined by various characteristics, including as gender, age, ethnicity, sexual orientation, socioeconomic status, and demographic inquiries. According to Story and Tait (2019), these questions are often presented at the beginning of the survey.

In addition, the major data gathering will utilize a cross-sectional temporal horizon. Consequently, data is collected simultaneously from a diverse range of individuals. Longitudinal studies, unlike cross-sectional studies, gather data from the same individuals over a period of time. This method is more relevant for the current study, as it focuses on a specific group of individuals with a shared characteristic (Thomas 2022).

The objective is to validate the proposed hypotheses by a quantitative survey. Typically, this approach is selected when there is a need to examine the theoretical questions raised during the research or the observations that rely on individuals' personal attributes, features, interests, and so on. The objective of quantitative survey techniques is to achieve a larger sample size in a shorter amount of time. The survey is implemented utilizing a predetermined research instrument, which aids in the systematic arrangement of the data obtained from the participants (Espadoto et al., 2021).

### **2.3. Research instrument**

Four components made up the questionnaire, totalling 44 questions, 12 items from the Multifactor Leadership Questionnaire Short Form (MLQ 5X) (Hemsworth, et al, 2013), 11 items for employee engagement from The Utrecht Work Engagement (UWES) Scale (Schaufeli and Bakker, 2004), 9 items for organizational commitment from The Allen and Meyer's Three Component Model of Organizational Commitment Scale (Meyer et al, 1993), and the remaining 12 items for job satisfaction from The JSS (Job Satisfaction survey) Questionnaire (Spector, 1985).

The initial set of inquiries pertains to the social and demographic information of the respondents in the survey: The following categories are gender, age, education, occupation, work experience, position in the organization, and years in their current position.

The Multifactor Leadership Questionnaire Short Form (MLQ 5X) (Bass & Avolio, 1995), as researched and developed by Hemsworth, et al, 2013, was utilized for measurement. This version is extensively utilized and serves as the established tool for gathering data on three distinct leadership styles: transformational, transactional, and laissez-faire leadership. It comprises 36 items that assess these leadership styles. The current study utilized a set of twelve questions from the MLQ 5X Short Form to assess transformational leadership. It is freely available online, and permission is granted to use the methodology for non-commercial purposes free of charge. The questionnaire assesses four dimensions of transformational leadership, these dimensions include Idealized Influence (II), Inspirational Motivation (IM), Intellectual Stimulation (IS), and Individualized Consideration (IC). It consists of 12 statements, which are assessed using Likert's five-point scale: 1 - "Strongly Disagree, 2 - "Disagree, 3 - "Neutral, 4 - " Agree, and 5 - "Strongly Agree". The validity and reliability of the questionnaire have already been examined in the aforementioned article.

**Table 3.** *The Multifactor Leadership Questionnaire Short Form (MLQ 5X)*

| Dimensions                    | Questions   | Cronbach Alpha Score |
|-------------------------------|---|----------------------|
| Idealized Influence.          | 1. My supervisor instills pride in others.<br>2. My supervisor acts in ways that build respect.<br>3. My supervisor goes beyond self-interest for the good of the team.   | 0.77                 |
| Inspirational Motivation.     | 1. My supervisor talks optimistically about the future.<br>2. My supervisor talks enthusiastically about what needs to be accomplished.<br>3. My supervisor articulates a compelling vision of the future.                                      | 0.70                 |
| Intellectual Stimulation.     | 1. My supervisor re-examines critical assumptions to see if they are suitable.<br>2. My supervisor seeks different perspectives/opinions when solving problems.<br>3. My supervisor gets others to look at problems from many different angles. | 0.74                 |
| Individualized Consideration. | 1. My supervisor spends time teaching and coaching staff members.<br>2. My supervisor considers an individual as having different needs, abilities, and aspirations from others.<br>3. My supervisor helps others to develop their strengths.   | 0.80                 |

Source: Hemsworth, et al, 2013.

The third set of questions utilized a set of eleven questions from The Utrecht Work Engagement (UWES-17) Scale, to determine the concept of employee work engagement. The questionnaire assesses 3 dimensions of employee work engagement, These dimensions include: 4 vigor items (Vigor refers to high levels of energy and resilience, the willingness to invest effort, not being easily fatigued, and persistence in the face of difficulties), 4 dedication items (Dedication refers to deriving a sense of significance from one's work,

feeling enthusiastic and proud about one's job, and feeling inspired and challenged by it), and 3 absorption items (Absorption refers to being totally and happily immersed in one's work and having difficulties detaching oneself from it so that time passes quickly and one forgets everything else that is around), Schaufeli, Salanova, González-Romá & Bakker, 2002a. It consists of 11 statements, which are assessed using Likert's seven-point scale: 1 - "Never, 2 - "Almost Never, 3 - "Rarely, 4 - " Sometimes, 5- "Often, 6 -" Very Often, and 7 - "Always". The validity and reliability of the questionnaire has already been examined in the aforementioned article.

**Table 4.** *The Utrecht Employee Work Engagement (UWES-17) Scale*

| Dimensions        | Questions   | Cronbach Alpha Score |
|-------------------|---|----------------------|
| Vigor Items.      | 1. At my work, I feel bursting with energy.<br>2. At my job, I feel strong and vigorous.<br>3. When I get up in the morning, I feel like going to work.<br>4. At my job, I am very resilient, mentally. | 0.83                 |
| Dedication Items. | 1. I find the work that I do full of meaning and purpose.<br>2. I am enthusiastic about my job.<br>3. My job inspires me.<br>4. I am proud of the work that I do.                                       | 0.92                 |
| Absorption Items. | 1. Time flies when I'm working.<br>2. I feel happy when I am working intensely.<br>3. I am immersed in my work.   | 0.82                 |

*Source:* Schaufeli and Bakker (2004).

The fourth set of questions utilized a set of nine questions from Allen and Meyer's Three Component Model of Organizational Commitment Scale and is used to determine the concept of organizational commitment an employee owes or gives to their organization. The questionnaire assesses 3 dimensions of organizational commitment, these dimensions include: 3 affective commitment questions, 3 continuance commitment questions, and 3 Normative commitment questions (Meyer et al, 1993). It consists of 9 statements, which are assessed using Likert's five-point scale: 1 - "Strongly Disagree, 2 - "Disagree, 3 - "Neutral, 4 -

" Agree, and 5 - "Strongly Agree". The validity and reliability of the questionnaire has already been examined in the aforementioned article.

**Table 5.** *The Allen and Meyer's Three Component Model of Organizational Commitment Scale*

| Dimensions              | Questions  | Cronbach Alpha Score |
|-------------------------|--|----------------------|
| Affective Commitment.   | <ol style="list-style-type: none"> <li>1. I would be very happy to spend the rest of my career with my present organization.</li> <li>2. I really feel as if this organization's problems are my own.</li> <li>3. This organization has a great deal of personal meaning for me.</li> </ol>  | 0.85                 |
| Continuance Commitment. | <ol style="list-style-type: none"> <li>1. It would be very hard for me to leave my organization right now, even if I wanted to.</li> <li>2. Too much of my life would be disrupted if I decided I wanted to leave my organization now.</li> <li>3. If I had not already put so much of myself into this organization, I might consider working elsewhere.</li> </ol> | 0.83                 |
| Normative Commitment.   | <ol style="list-style-type: none"> <li>1. This organization deserves my loyalty.</li> <li>2. I would not leave my organization right now because I have a sense of obligation to the people in it.</li> <li>3. I owe a great deal to my organization.</li> </ol>   | 0.77                 |

*Source:* Meyer et al, 1993.

The fifth set of questions utilized a set of twelve questions from The JSS (Job Satisfaction Survey) Questionnaire and is used to analyze behaviors toward job satisfaction. It consists of 12 statements, which are assessed using Likert's six-point scale: 1 - "Strongly Disagree, 2 - "Disagree, 3 - "Slightly Disagree, 4 - " Slightly Agree, 5 - "Agree", and 6 - "Strongly Agree". The validity and reliability of the questionnaire has already been examined in the aforementioned article.

**Table 6.** *The JSS (Job Satisfaction) Survey Scale*

| Dimensions                                      | Questions   | Cronbach Alpha Score |
|---|---|----------------------|
| Pay and Recognition.                            | 1. I feel I am being paid a fair amount for the work I do.<br>2. When I do a good job, I receive the recognition for it that I should receive.<br>3. I feel unappreciated by the organization when I think about what they pay me.® | 0.75                 |
| Supervision and Support.                        | 1. My supervisor is quite competent in doing his/her job.<br>2. My supervisor shows too little interest in the feelings of subordinates.®<br>3. I like my supervisor.   | 0.70                 |
| Work Environment and Relationships (Co-workers) | 1. I like the people I work with.<br>2. Communications seem good within this organization.<br>3. There is too much bickering and fighting at work.®   | 0.82                 |
| Intrinsic Satisfaction (Work).                  | 1. I like doing the things I do at work.<br>2. I feel a sense of pride in doing my job.<br>3. My job is enjoyable.  | 0.76                 |

*Source:* Spector, 1985.

The developed research tool should enable the understanding of the characteristics of the study participants, such as their gender, age, education level, and position, and how they are distributed. The demographic and socioeconomic characteristics of the research participants are analyzed using descriptive statistics to determine the percentage distribution of the participants.

#### **2.4. Study population, sample and data collection**

The quantitative study was conducted among the respondents. The survey extended invitations to both managers and employees who engage in intellectual activity in

an organization, regardless of whether they had subordinates or not. There were no limitations or constraints regarding the age, gender, or education of the participants. The survey was officially released and made accessible to the public in the year 2024. The survey commenced in October 2024 and concluded in November 2024.

The questionnaire aims to investigate the impact of transformational leadership on employee engagement, organizational commitment, and job satisfaction in companies. Additionally, it is specified that the questionnaire is anonymous and will solely be utilized for research objectives.

All questionnaires were completed in their entirety, thereby rendering them all appropriate for data processing and review, and the poll was only done online using the Microsoft Forms platform. Following the initiation of the statistical quantitative survey, a survey link was issued to participants along with a description of the study. They were asked to distribute the information to their subordinates or coworkers, former colleagues, friends, and acquaintances employed in various firms, inviting them to partake in a confidential survey. A hyperlink was additionally shared on LinkedIn, Facebook, and Instagram. Additionally, on the Facebook platform, within exclusive groups and among acquaintances, individuals were encouraged to complete or distribute the questionnaire to individuals employed in other companies.

The collected data will undergo anonymous processing during the analysis, be maintained until the completion of the work, and subsequently be deleted.

The data collected during the research will be processed using the statistical software IBM SPSS (Statistical Package for Social Science). Descriptive statistics will be used for demographic and organizational data (mean values, frequencies, standard deviation). Cronbach's alpha coefficient will be calculated to assess the internal consistency of the scales used in the study. Kolmogorov - Smirnov and Shapiro – Wilk tests will be used to evaluate data distribution. T-test and ANOVA will be used to evaluate the statistical significance of the study results. Linear regression and mediation analysis will be carried out to evaluate the relationship between independent and dependent variables.

### **3. EMPIRICAL ANALYSIS OF THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP ON EMPLOYEE ENGAGEMENT, ORGANIZATIONAL COMMITMENT AND JOB SATISFACTION.**

This chapter presents the findings and analysis of the factors influencing transformational leadership, employee engagement, organizational commitment, and job satisfaction within an organization. The first section provides a detailed summary of the demographic characteristics of the respondents, including gender, age, educational background, and work experience. This information helps to understand better the profile of the respondents and the groups to which the research findings are most relevant. The second part of the chapter focuses on testing the hypotheses, examining how transformational leadership impacts organizational commitment, as well as the moderating effect of employee engagement and the mediating role of job satisfaction. The relationships between these variables are analysed to assess their significance and contribution to the study's overall objectives.

#### **3.1. Review of demographic and social data of study participants**

The demographic breakdown of the respondents provides insight into the composition of the participants in the study, including their gender, age, and educational background.



**Table 7.** *Individual and organizational characteristics of the respondents*

| <i>Characteristics</i> | <i>Variable</i>   | <i>N</i> | <i>Percentage %</i> |
|------------------------|-------------------|----------|---------------------|
| Gender                 | Male              | 165      | 46.6                |
|                        | Female            | 189      | 53.4                |
| Age                    | 16                | 1        | 0.3                 |
|                        | 17                | 1        | 0.3                 |
|                        | 20                | 5        | 1.4                 |
|                        | 21                | 3        | 0.8                 |
|                        | 22                | 3        | 0.8                 |
|                        | 23                | 2        | 0.6                 |
|                        | 24                | 8        | 2.3                 |
|                        | 25                | 14       | 4.0                 |
|                        | 26                | 12       | 3.4                 |
|                        | 27                | 14       | 4.0                 |
|                        | 28                | 35       | 9.9                 |
|                        | 29                | 27       | 7.6                 |
|                        | 30                | 46       | 13.0                |
|                        | 31                | 29       | 8.2                 |
|                        | 32                | 23       | 6.5                 |
|                        | 33                | 22       | 6.2                 |
|                        | 34                | 17       | 4.8                 |
|                        | 35                | 30       | 8.5                 |
|                        | 36                | 10       | 2.8                 |
|                        | 37                | 11       | 3.1                 |
|                        | 38                | 6        | 1.7                 |
|                        | 39                | 6        | 1.7                 |
|                        | 40                | 7        | 2.0                 |
|                        | 41                | 1        | 0.3                 |
|                        | 42                | 1        | 0.3                 |
|                        | 43                | 2        | 0.6                 |
|                        | 45                | 4        | 1.1                 |
|                        | 46                | 2        | 0.6                 |
|                        | 47                | 3        | 0.8                 |
|                        | 48                | 1        | 0.3                 |
|                        | 49                | 1        | 0.3                 |
|                        | 50                | 2        | 0.6                 |
|                        | 53                | 1        | 0.3                 |
|                        | 55                | 2        | 0.6                 |
|                        | 63                | 1        | 0.3                 |
|                        | 68                | 1        | 0.3                 |
| Educational Background | High School       | 15       | 4.2                 |
|                        | Bachelor's Degree | 216      | 61.0                |
|                        | Master's Degree   | 98       | 27.7                |
|                        | Ph.D.             | 6        | 1.7                 |

| <i>Continuation of Table 7</i>                                      |                       |     |      |
|---|-----------------------|-----|------|
|   | Other                 | 19  | 5.4  |
| Work Experience (Years spent working for different organizations)   | Less than 1 year      | 19  | 5.4  |
|   | 1-3 years             | 83  | 23.4 |
|   | 4-6 years             | 108 | 30.5 |
|   | 7-10 years            | 88  | 24.9 |
|   | More than 10 years    | 56  | 15.8 |
| Do you have employees under your supervision?                       | Yes                   | 181 | 51.1 |
|   | No                    | 173 | 48.9 |
| How many years have you spent working in your current organization? | Less than 1 year      | 87  | 24.6 |
|   | 1-3 years             | 157 | 44.4 |
|   | 4-6 years             | 64  | 18.1 |
|   | 7-10 years            | 36  | 10.2 |
|   | More than 20 years    | 10  | 2.8  |
| In what sector does your organization operate?                      | Public Administration | 21  | 5.9  |
|   | Financial Services    | 86  | 24.3 |
|   | IT Services           | 37  | 10.5 |
|   | Education             | 28  | 7.9  |
|   | Health Services       | 33  | 9.3  |
|   | Manufacturing         | 22  | 6.2  |
|   | Trade                 | 38  | 10.7 |
|   | Other                 | 89  | 25.1 |
| How big is your organization?                                       | 1-9                   | 65  | 18.4 |
|   | 10-49                 | 89  | 25.1 |
|   | 50-199                | 61  | 17.2 |
|   | 200 and above         | 139 | 39.3 |
| In what sector does your organization operate?                      | Private Sector        | 291 | 82.2 |
|   | Public Sector         | 63  | 17.8 |

*Source:* Compiled by the author.

As observed from the findings shown in Table 7, the percentage of male and female participants in the research was close to equal—46.6% male and 53.4% female, respectively.

These age groups highlight a concentration of participants in their late 20s to early 30s, with 28, 30, and 35 years being the most prominent individual ages.

The majority of participants had a Bachelor's degree (61.0%), followed by a Master's degree (27.7%), indicating a highly educated group.

Regarding the sectors in which their organizations operate, the highest came from Financial Services (24.3%), IT Services (10.5%), Trade: 10.7%, Health Services: 9.3%, Education: 7.9%, Other: 25.1%.

Participants predominantly worked in the Private Sector (82.2%). Organizational size leaned more towards larger companies, with 39.3% of participants working in organizations with 200 and above employees.

### 3.2. Internal Consistency and reliability of scales

The questionnaire used for the research was created using validated scales. However, every time the construct measurement scales included in the survey are used, it is imperative to verify their internal consistency and reliability (Tavakol & Dennick, 2011). Cronbach alfa coefficients were computed for each scale and latent variables to confirm the validity of the scales. The obtained Cronbach alfa coefficient in relation to the original authors' reported Cronbach alfa is presented in Table 8.

**Table 8.** *The comparison of Cronbach Alpha coefficient for the measurement scales*

| Construct   | Cronbach Alpha Score reported by authors   | Cronbach Alpha Score obtained |
|---|--|-------------------------------|
| Multifactor Leadership Questionnaire Short Form (MLQ 5X) (Hemsworth, et al, 2013) 12 items              |  |                               |
| Overall scale   | 0.94   | 0.93                          |
| The Utrecht Work Engagement (UWES) Scale (Schaufeli and Bakker, 2004), 11 items                         |  |                               |
| Overall scale   | 0.85   | 0.92                          |
| Allen and Meyer's Three Component Model of Organizational Commitment Scale (Meyer et al, 1993), 9 items |  |                               |
| Overall scale   | Affective Commitment: 0.87, Continuance Commitment: 0.79, Normative Commitment: 0.73 | 0.89                          |

*Continuation of Table 8*

|   |      |      |
|---|------|------|
| The JSS (Job Satisfaction Survey) Questionnaire (Spector, 1985), 12 items |      |      |
| Overall scale   | 0.91 | 0.85 |

*Source:* Compiled by the author according to research data.

As shown in Table 8, the Cronbach alpha coefficients of the measurement scales used are extremely similar to those the authors reported. Cronbach alfa greater than 0.7 indicates good validity. It is dependable for subsequent surveys even though it can be impacted by overlapping items and the length of the construct (Tavakol & Dennick, 2011).

### 3.3. Assessment of data normality

Data normality tests were performed to determine whether the data distribution was normal. The Shapiro-Wilk and Kolmogorov-Smirnov tests were run. Table 9 displays the outcomes of both tests.

**Table 9.** *Test of normality results*

| Variables                             | Kolmogorov-Smirnov Test |           |         | Shapiro-Wilk Test |           |         |
|---------------------------------------|-------------------------|-----------|---------|-------------------|-----------|---------|
|                                       | Statistics              | Frequency | P value | Statistics        | Frequency | P value |
| Transformational Leadership           | 0.107                   | 354       | <0.001  | 0.923             | 354       | <0.001  |
| Employee Engagement                   | 0.086                   | 354       | <0.001  | 0.960             | 354       | <0.001  |
| Affective Organizational Commitment   | 0.095                   | 354       | <0.001  | 0.966             | 354       | <0.001  |
| Normative Organizational Commitment   | 0.097                   | 354       | <0.001  | 0.961             | 354       | <0.001  |
| Continuance Organizational Commitment | 0.092                   | 354       | <0.001  | 0.973             | 354       | <0.001  |
| Job Satisfaction                      | 0.069                   | 354       | <0.001  | 0.975             | 354       | <0.001  |

*Source:* Compiled by the author according to research data.

Since all of the p-values are less than 0.05, the normality tests (Kolmogorov-Smirnov and Shapiro-Wilk) for Transformational Leadership, Employee Engagement, Affective Organizational Commitment, Normative Organizational Commitment, Continuance Organizational Commitment, and Job Satisfaction show that none of the variables have a normal distribution. This implies that every variable deviates significantly from normalcy. Considering this finding, additional analyses that call for the normalcy assumption may need to be conducted using non-parametric statistical techniques or data transformations. To further assess the normality of the sample's data distribution, the coefficients of skewness and kurtosis were subsequently examined in Table 10 while considering the individual and organizational characteristics of the mixed respondents.

**Table 10.** *Skewness and Kurtosis of the variables*

| Variables                             | Skewness | Kurtosis |
|---------------------------------------|----------|----------|
| Transformational Leadership           | -1.142   | 2.171    |
| Employee Engagement                   | -0.553   | -0.356   |
| Affective Organizational Commitment   | -0.291   | -0.285   |
| Normative Organizational Commitment   | -0.350   | -0.101   |
| Continuance Organizational Commitment | -0.105   | -0.282   |
| Job Satisfaction                      | -0.551   | 0.214    |

*Source:* Compiled by the author according to research data.

The data is very close to a normal distribution, as indicated by Table 10, where the values of the coefficients of skewness and kurtosis fall between -1.5 and 1.5. Consequently, in subsequent analysis, statistical tools for parametric data will be employed. The variable histograms are included in the Annex.

### **3.4. Descriptive statistics**

The mean values of the constructs in Table 11 illustrate the survey respondents' perceptions of transformational leadership, organizational commitment (across its dimensions), employee engagement, and job satisfaction. For Transformational Leadership, the mean value is 4.01 on a scale of 1 to 5, indicating generally positive ratings leaning above average, with a standard deviation of 0.75, suggesting moderate variability in responses. For Employee Engagement, the mean is 5.45 on a 1 to 7 scale, signifying high engagement levels among respondents, though a higher standard deviation of 1.05 indicates more diverse opinions.

For Affective Organizational Commitment, the mean is 3.3324 on a 1 to 5 scale, reflecting moderate commitment, with a standard deviation of 0.997 indicating some variability in responses. Similarly, Normative Organizational Commitment has a mean of 3.3974, showing moderate agreement, with a standard deviation of 0.969, implying slightly less variability compared to affective commitment. Continuance Organizational Commitment has the lowest mean (2.8889) on the same scale, reflecting a lower sense of necessity-based commitment, with a standard deviation of 0.937 indicating moderate variability. Lastly, Job Satisfaction scores a mean of 4.52 on a scale of 1 to 6, suggesting above-average satisfaction, with a standard deviation of 0.84 pointing to relatively consistent responses. However, to evaluate the respondents' attitudes toward the variables in greater depth based on the demographic and organizational characteristics, significance tests will be conducted.

**Table 11.** *The mean, standard deviation, and scale values of the constructs*

| Construct                             | Mean Value of the construct (M) | Standard Deviation of the construct (SD) | Scale Values |         |
|---------------------------------------|---------------------------------|--|--------------|---------|
|                                       |                                 |  | Minimum      | Maximum |
| Transformational Leadership           | 4.01                            | 0.75                                     | 1            | 5       |
| Employee Engagement                   | 5.45                            | 1.05                                     | 1            | 7       |
| Affective Organizational Commitment   | 3.3324                          | 0.997                                    | 1            | 5       |
| Normative Organizational Commitment   | 3.3974                          | 0.969                                    | 1            | 5       |
| Continuance Organizational Commitment | 2.8889                          | 0.937                                    | 1            | 5       |
| Job Satisfaction                      | 4.52                            | 0.84                                     | 1            | 6       |

*Source:* Compiled by the author according to research data.

### **3.5. Differences of evaluation data depending on demographic data**

The independent samples T-test and one-way ANOVA tests were used to assess potential differences among respondents about how demographic traits affected employees'

perceptions of significant study variables. The respondents' gender, age, education, occupation, work experience, position within the company, and years in their current role were taken into consideration when evaluating the variations in transformational leadership, employee engagement, and organizational commitment (across its dimensions).

### 3.5.1. Evaluation of variables according to the respondents' gender

Independent samples T-test was used to assess the differences in respondents' evaluations of the variables according to gender.

**Table 12.** *Evaluation differences of variables according to the respondents' gender*

| Variables                             | Male   |         | Female |         | t-test |               |
|---------------------------------------|--------|---------|--------|---------|--------|---------------|
|                                       | Means  | SD      | Means  | SD      | t      | p (two-sided) |
| Transformational Leadership           | 4.1076 | 0.69204 | 3.9175 | 0.78400 | 2.402  | 0.017         |
| Employee Engagement                   | 5.6028 | 1.03132 | 5.3218 | 1.05437 | 2.527  | 0.012         |
| Affective Organizational Commitment   | 3.4141 | 1.00483 | 3.2610 | 0.98814 | 1.443  | 0.150         |
| Normative Organizational Commitment   | 3.5172 | 0.95168 | 3.2928 | 0.97492 | 2.184  | 0.030         |
| Continuance Organizational Commitment | 2.9394 | 0.95230 | 2.8448 | 0.92414 | 0.947  | 0.344         |
| Job Satisfaction                      | 4.6369 | 0.78465 | 4.4220 | 0.87564 | 2.417  | 0.016         |

*Source:* Compiled by the author according to research data.

The results of the independent samples t-test reveal significant gender-based differences for some variables, while others show no significant variation. For Transformational Leadership, male respondents rated higher ( $M = 4.11$ ,  $SD = 0.69$ ) than females ( $M = 3.92$ ,  $SD = 0.78$ ), with a statistically significant t-test result ( $t = 2.402$ ,  $p = 0.017$ ). This indicates that males perceive transformational leadership more favorably than females.

For Employee Engagement, males reported higher engagement ( $M = 5.60$ ,  $SD = 1.03$ ) compared to females ( $M = 5.32$ ,  $SD = 1.05$ ). The t-test result ( $t = 2.527$ ,  $p = 0.012$ ) confirms a significant difference, suggesting males feel more engaged at work than females.

Regarding Affective Organizational Commitment, while males scored slightly higher ( $M = 3.41$ ,  $SD = 1.00$ ) than females ( $M = 3.26$ ,  $SD = 0.99$ ), the t-test ( $t = 1.443$ ,  $p = 0.150$ ) indicates no statistically significant difference. Similarly, for Continuance Organizational Commitment, the mean scores for males ( $M = 2.94$ ,  $SD = 0.95$ ) and females ( $M = 2.84$ ,  $SD = 0.92$ ) show no significant difference ( $t = 0.947$ ,  $p = 0.344$ ).

In contrast, Normative Organizational Commitment reveals a statistically significant gender difference, with males scoring higher ( $M = 3.52$ ,  $SD = 0.95$ ) than females ( $M = 3.29$ ,  $SD = 0.97$ ), as reflected in the t-test result ( $t = 2.184$ ,  $p = 0.030$ ). Lastly, for Job Satisfaction, males rated their satisfaction higher ( $M = 4.64$ ,  $SD = 0.78$ ) compared to females ( $M = 4.42$ ,  $SD = 0.88$ ), with a significant t-test result ( $t = 2.417$ ,  $p = 0.016$ ), suggesting males generally feel more satisfied with their jobs than females. Additional information on the data comparison with the respondents' gender is provided in the Annex.

### 3.5.2. Evaluation of variables according to the respondents' age

A one-way ANOVA test was used to determine whether the respondent's age affected the perceptions of these variables.

**Table 13.** *Evaluation differences of variables according to respondents' age group*

| Variables                           | <25years<br>(N=23) |         | 25-35 years<br>(N=239) |         | 36-45 years<br>(N=74) |         | 46-55 years<br>(N=14) |         | >55 years<br>(N=4) |         | One-way<br>ANOVA |       |
|-------------------------------------|--------------------|---------|------------------------|---------|-----------------------|---------|-----------------------|---------|--------------------|---------|------------------|-------|
|                                     | M                  | SD      | M                      | SD      | M                     | SD      | M                     | SD      | M                  | SD      | f                | p     |
| Transformational Leadership         | 3.8841             | 0.67548 | 3.9732                 | 0.77148 | 4.0653                | 0.70283 | 4.4524                | 0.40525 | 4.0208             | 1.11674 | 1.645            | 0.162 |
| Employee Engagement                 | 5.2174             | 0.95651 | 5.4260                 | 1.0699  | 5.5332                | 1.0420  | 5.5909                | 0.95994 | 6.4318             | 0.4223  | 1.368            | 0.245 |
| Affective Organizational Commitment | 3.4058             | 0.77170 | 3.2399                 | 1.03221 | 3.4369                | 0.88609 | 3.8333                | 0.95854 | 4.7500             | 0.50000 | 3.765            | 0.005 |
| Normative Organizational Commitment | 3.3043             | 0.79717 | 3.3445                 | 1.01108 | 3.4730                | 0.85119 | 3.6905                | 0.95599 | 4.6667             | 0.47140 | 2.416            | 0.049 |



*Continuation of Table 13*

|   |            |             |            |             |            |             |            |             |            |             |           |           |
|---|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|-----------|-----------|
| Continuance<br>Organizational<br>Commitment | 3.01<br>45 | 0.72<br>110 | 2.83<br>54 | 0.96<br>332 | 2.92<br>34 | 0.88<br>027 | 2.97<br>62 | 0.84<br>190 | 4.41<br>67 | 0.68<br>718 | 3.0<br>81 | 0.0<br>16 |
| Job<br>Satisfaction                         | 4.51<br>4  | 0.71<br>27  | 4.46<br>30 | 0.89<br>24  | 4.61<br>0  | 0.72<br>164 | 4.95<br>2  | 0.42<br>707 | 4.95<br>8  | 1.04<br>63  | 1.7<br>01 | 0.1<br>49 |

*Source:* Compiled by the author according to research data.

The one-way ANOVA analysis evaluates differences in perceptions of Transformational Leadership, Employee Engagement, Organizational Commitment (across its dimensions), and Job Satisfaction across various age groups. The results highlight significant age-based differences in Employee Engagement and Organizational Commitment but no robust differences in Transformational Leadership or Job Satisfaction after applying post-hoc corrections.

For Transformational Leadership, the ANOVA results ( $F=1.601$ ,  $p=0.162$ ) show no significant differences across age groups. Although post-hoc LSD tests suggest some differences, such as higher ratings from the 46–55 years age group compared to younger groups (<25 years and 25–35 years), these differences do not hold after Bonferroni corrections. As a result, perceptions of transformational leadership appear consistent across all age ranges, indicating no substantial influence of age on how leadership is perceived.

In contrast, Employee Engagement demonstrates significant age-based differences ( $F=3.068$ ,  $p=0.006$ ). Post-hoc analyses reveal that respondents aged >55 years report significantly higher engagement compared to younger groups, particularly those <25 years ( $p=0.033$ ) and 25–35 years ( $p=0.034$ ). These differences remain significant even after Bonferroni corrections. This suggests that older respondents tend to feel more engaged at work, highlighting an upward trend in engagement with age.

Similarly, significant differences are observed in Organizational Commitment, including its Affective, Normative, and Continuance dimensions. For Affective Commitment, older respondents (>55 years) report significantly higher levels of commitment compared to younger respondents (<25 years and 25–35 years), with the differences holding under Bonferroni corrections. The same trend is evident for Normative Commitment, where the >55 years group demonstrates significantly stronger commitment compared to younger groups. For Continuance Commitment, older respondents also score higher, with significant

differences between the >55 years group and younger groups (<25 years and 25–35 years) confirmed through post-hoc testing. These findings collectively suggest that commitment to the organization increases with age, indicating that older employees are more likely to feel invested in their organization.

For Job Satisfaction, the ANOVA results ( $F=1.046$ ,  $p=0.149$ ) do not indicate any significant differences across age groups. While the LSD test suggests some significant pairwise differences (e.g., between the 46–55 years and 25–35 years groups), these findings do not remain significant under Bonferroni correction. As a result, perceptions of job satisfaction appear stable and consistent across all age groups, suggesting that age does not play a substantial role in influencing satisfaction levels.

In summary, this analysis highlights significant age-based differences in Employee Engagement and all dimensions of Organizational Commitment, with older respondents (>55 years) consistently reporting higher levels compared to younger respondents. However, no robust age-related differences are observed in Transformational Leadership or Job Satisfaction. These findings suggest that efforts to improve engagement and commitment may need to focus more on younger employees, while perceptions of leadership and satisfaction appear unaffected by age. Additional information on the data comparison with the respondents' age group is provided in the Annex.

### **3.5.3. Evaluation of variables according to the respondents' education**

The one-way ANOVA results indicate no statistically significant differences in the analyzed constructs—Transformational Leadership, Employee Engagement, Organizational Commitment (Affective, Normative, and Continuance), and Job Satisfaction—across different education levels. Despite minor variations in mean scores, particularly with Ph.D. holders reporting slightly higher scores in certain constructs (e.g., Employee Engagement and Organizational Commitment), these differences were not statistically significant as indicated by the p-values exceeding the significance threshold of 0.05.

Post-hoc tests, including LSD and Bonferroni corrections, support these findings by showing that any observed pairwise differences in means between education groups are not robust or consistent. For example, while some comparisons suggest higher scores for Ph.D. holders in certain dimensions (e.g., Affective and Normative Commitment), these differences do not hold under stricter statistical corrections.

Overall, the results suggest that education level does not play a significant role in shaping perceptions of Transformational Leadership, Employee Engagement, Organizational

Commitment, or Job Satisfaction. This implies that these workplace constructs are perceived similarly across individuals with varying educational backgrounds, and education is not a major determinant in this context. Additional information on the data comparison with the respondents' education is provided in the Annex.

**Table 14.** *Evaluation differences of variables according to the respondents' education*

| Variables                             | High School (N=15) |         | Bachelor's Degree (N=216) |         | Master's Degree (N=98) |         | Ph.D. (N=6) |         | Other (N=19) |         | One-way ANOVA |       |
|---------------------------------------|--------------------|---------|---------------------------|---------|------------------------|---------|-------------|---------|--------------|---------|---------------|-------|
|                                       | M                  | SD      | M                         | SD      | M                      | SD      | M           | SD      | M            | SD      | f             | p     |
| Transformational Leadership           | 3.9333             | 0.73274 | 4.0000                    | 0.67250 | 4.0434                 | 0.92023 | 4.3611      | 0.76316 | 3.8289       | 0.57230 | 0.703         | 0.591 |
| Employee Engagement                   | 5.3576             | 0.77936 | 5.5135                    | 1.03476 | 5.2820                 | 1.06414 | 6.2273      | 0.74468 | 5.4737       | 1.32628 | 1.685         | 0.153 |
| Affective Organizational Commitment   | 3.4000             | 0.82808 | 3.3164                    | 0.97791 | 3.2857                 | 1.04317 | 4.3889      | 0.74287 | 3.3684       | 1.07091 | 1.790         | 0.130 |
| Normative Organizational Commitment   | 3.4444             | 0.85139 | 3.3951                    | 0.98427 | 3.3299                 | 0.94220 | 4.4444      | 0.86066 | 3.4035       | 0.95309 | 1.897         | 0.110 |
| Continuance Organizational Commitment | 2.9556             | 0.67691 | 2.8904                    | 0.94491 | 2.8707                 | 0.94479 | 3.3889      | 1.32358 | 2.7544       | 0.89472 | 0.550         | 0.699 |
| Job Satisfaction                      | 4.4278             | 0.81520 | 4.5235                    | 0.82056 | 4.4881                 | 0.90206 | 5.1806      | 0.62897 | 4.5482       | 0.79413 | 1.014         | 0.400 |

*Source:* Compiled by the author according to research data.

#### **3.5.4. Evaluation of variables according to the respondents' work experience**

The one-way ANOVA results show that Job Satisfaction varies significantly across work experience groups ( $F=3.00$ ,  $p=0.037$ ). Respondents with more than 10 years of work experience reported the highest levels of job satisfaction ( $M = 4.74$ ), compared to those with shorter tenures such as less than 1 year ( $M = 4.28$ ). Post-hoc LSD analysis reinforces this finding, highlighting significant differences between the more experienced groups (7–10 years and more than 10 years) and less experienced groups (less than 1 year and 1–3 years).

However, when Bonferroni corrections are applied, the significance of these differences diminishes, suggesting a cautious interpretation of the results.

Employee Engagement also shows a trend of increasing with work experience (e.g.,  $M = 5.14$  for less than 1 year vs.  $M = 5.74$  for more than 10 years), though this trend does not reach statistical significance ( $F=2.10$ ,  $p=0.076$ ). This suggests a potential pattern where engagement may improve with tenure, but the data does not provide robust evidence for this relationship.

On the other hand, Transformational Leadership ( $F=1.20$ ,  $p=0.305$ ) and Organizational Commitment across all its dimensions (Affective, Normative, and Continuance) show no statistically significant differences across work experience groups. This indicates that perceptions of leadership and commitment remain stable regardless of the respondents' years of experience.

In summary, while Job Satisfaction appears to vary with work experience, particularly for employees with longer tenures, the findings should be interpreted cautiously due to the lack of robustness under stricter statistical corrections. Meanwhile, Employee Engagement, Transformational Leadership, and Organizational Commitment appear consistent across work experience groups. These insights suggest that organizations may need to focus on addressing the unique needs of less experienced employees to enhance satisfaction and engagement, while maintaining consistent leadership practices and commitment-building strategies across all experience levels. Additional information on the data comparison with the respondents' work experience is provided in the Annex

**Table 15.** *Evaluation differences of variables according to the respondents' work experience*

| Variables                           | Less than 1 year<br>(N=19) |         | 1-3 years<br>(N=83) |         | 4-6 years<br>(N=108) |         | 7-10 years<br>(N=88) |         | More than 10 years<br>(N=56) |         | One-way ANOVA |       |
|-------------------------------------|----------------------------|---------|---------------------|---------|----------------------|---------|----------------------|---------|------------------------------|---------|---------------|-------|
|                                     | M                          | SD      | M                   | SD      | M                    | SD      | M                    | SD      | M                            | SD      | f             | p     |
| Transformational Leadership         | 3.8202                     | 0.98416 | 4.0793              | 0.61471 | 3.9807               | 0.72134 | 3.9252               | 0.81670 | 4.1369                       | 0.76812 | 1.213         | 0.305 |
| Employee Engagement                 | 5.1483                     | 1.18384 | 5.5356              | 1.04466 | 5.4125               | 1.07446 | 5.3027               | 1.01060 | 5.7468                       | 0.99052 | 2.136         | 0.076 |
| Affective Organizational Commitment | 3.2456                     | 1.04729 | 3.3333              | 1.01078 | 3.2346               | 0.91060 | 3.2614               | 1.06668 | 3.6607                       | 0.97544 | 1.945         | 0.103 |

*Continuation of Table 15*

|                                       |        |         |        |         |        |         |        |         |        |         |       |       |
|---------------------------------------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|-------|-------|
| Normative Organizational Commitment   | 3.2281 | 0.96898 | 3.5060 | 0.95333 | 3.3241 | 0.92216 | 3.2197 | 1.05274 | 3.7143 | 0.87716 | 0.565 | 0.688 |
| Continuance Organizational Commitment | 2.8947 | 0.85384 | 2.8795 | 1.08022 | 2.9198 | 0.84754 | 2.7803 | 0.94401 | 3.0119 | 0.90334 | 2.855 | 0.024 |
| Job Satisfaction                      | 4.2851 | 0.96438 | 4.6847 | 0.77248 | 4.4267 | 0.87969 | 4.3939 | 0.90494 | 4.7470 | 0.61709 | 3.090 | 0.016 |

*Source:* Compiled by the author according to research data.

### 3.5.5. Evaluation of variables according to the respondents' supervision of employees

Independent samples T-test was used to assess the differences in respondents' evaluations of the variables according to the supervision of employees.

**Table 16.** *Evaluation differences of variables according to the respondents' supervision of employees*

| Variables                           | Yes    |         | No     |         | t-test |       |               |
|-------------------------------------|--------|---------|--------|---------|--------|-------|---------------|
|                                     | Means  | SD      | Means  | SD      | t      | p     | p (two-sided) |
| Transformational Leadership         | 3.9751 | 0.68785 | 4.0385 | 0.80607 | -0.797 | 0.072 | 0.426         |
| Employee Engagement                 | 5.5826 | 0.97243 | 5.3169 | 1.11524 | 2.393  | 0.129 | 0.017         |
| Affective Organizational Commitment | 3.5028 | 0.97095 | 3.1541 | 0.99644 | 3.334  | 0.766 | <0.001        |
| Normative Organizational Commitment | 3.5451 | 0.93951 | 3.2428 | 0.97853 | 2.489  | 0.821 | 0.003         |

*Continuation of Table 16*

|   |        |         |        |         |       |       |       |
|---|--------|---------|--------|---------|-------|-------|-------|
| Continuance<br>Organizational<br>Commitment | 3.0092 | 0.91451 | 2.7630 | 0.94676 | 2.966 | 0.568 | 0.013 |
| Job Satisfaction                            | 4.5645 | 0.80512 | 4.4778 | 0.87553 | 0.969 | 0.169 | 0.333 |

*Source:* Compiled by the author according to research data.

The t-test results show significant differences in Employee Engagement ( $p=0.017$ ) and all dimensions of Organizational Commitment (Affective, Normative, and Continuance) between supervisors and non-supervisors. Supervisors report higher engagement ( $M = 5.5826$ ) compared to non-supervisors ( $M = 5.3169$ ), indicating that supervisory responsibilities are associated with greater workplace engagement. Similarly, supervisors demonstrate higher levels of Affective Organizational Commitment ( $M = 3.5028$  vs.  $3.1541$ ,  $p < 0.001$ ), Normative Organizational Commitment ( $M = 3.5451$  vs.  $3.2428$ ,  $p = 0.003$ ), and Continuance Organizational Commitment ( $M = 3.0092$  vs.  $2.7630$ ,  $p = 0.013$ ), suggesting that supervisory roles enhance employees' emotional, normative, and necessity-driven connection to their organization.

However, no significant differences are found for Transformational Leadership ( $p = 0.426$ ) or Job Satisfaction ( $p = 0.333$ ) between supervisors and non-supervisors. These findings suggest that while supervisory responsibilities enhance engagement and organizational commitment, they do not significantly influence perceptions of leadership or satisfaction levels.

### **3.5.6. Evaluation of variables according to the respondents' work years in their current organization**

The one-way ANOVA and post-hoc tests provide a nuanced understanding of how work tenure within a current organization influences perceptions of Transformational Leadership, Employee Engagement, Organizational Commitment, and Job Satisfaction. The findings indicate variability in organizational commitment and job satisfaction based on work tenure, while perceptions of transformational leadership and employee engagement remain consistent.

For Transformational Leadership, the ANOVA results reveal no significant differences across tenure groups ( $F=0.714$ ,  $p=0.584$ ). Post-hoc analyses, including LSD and Bonferroni corrections, confirm that differences between groups are not statistically significant. The

mean scores for transformational leadership are stable across groups, ranging from 3.92 to 4.27. These results suggest that perceptions of leadership are unaffected by how long employees have been with their current organization.

In the case of Employee Engagement, the ANOVA results similarly show no significant differences across tenure groups ( $F=1.448$ ,  $p=0.228$ ). While the LSD test highlights a potential difference between employees with more than 20 years of tenure and those with less than 1 year (Mean Difference = 0.73992,  $p = 0.035$ ), this finding does not hold under the stricter Bonferroni correction. Although there is a visible trend of increased engagement with longer tenure, the differences are not statistically robust, indicating that engagement levels are relatively stable across tenure groups.

For Organizational Commitment, significant differences are observed across tenure groups ( $F=3.400$ ,  $p=0.011$ ). Post-hoc analysis revealed that employees with more than 20 years of tenure report significantly higher commitment compared to those with less than 1 year (Mean Difference = 1.00332,  $p < 0.001$ ), 1–3 years (Mean Difference = 0.91479,  $p = 0.001$ ), and 4–6 years (Mean Difference = 0.85625,  $p = 0.006$ ). These differences remain significant even after Bonferroni correction, underscoring a robust relationship between longer tenure and higher organizational commitment. This suggests that employees who have remained with their organization for extended periods are more committed, likely due to deeper emotional, normative, and necessity-based connections.

Finally, Job Satisfaction also shows significant differences across tenure groups ( $F=2.708$ ,  $p=0.037$ ). LSD post-hoc tests indicate that employees with more than 20 years of tenure report significantly higher satisfaction levels compared to those with less than 1 year (Mean Difference = 0.36925,  $p = 0.037$ ) and 4–6 years (Mean Difference = 0.39889,  $p = 0.031$ ). However, these differences lose significance under Bonferroni correction, suggesting that while there is an indication of greater satisfaction among long-tenured employees, the results are less conclusive. Additional information on the data comparison with the respondents' education is provided in the Annex.

**Table 17.** *Evaluation differences of variables according to the respondents' work years in their current organization*

| Variables                             | Less than 1 year (N=87) |         | 1-3 years (N=157) |         | 4-6 years (N=64) |         | 7-10 years (N=36) |         | More than 20 years (N=10) |         | One-way ANOVA |       |
|---------------------------------------|-------------------------|---------|-------------------|---------|------------------|---------|-------------------|---------|---------------------------|---------|---------------|-------|
|                                       | M                       | SD      | M                 | SD      | M                | SD      | M                 | SD      | M                         | SD      | f             | p     |
| Transformational Leadership           | 3.9847                  | 0.82109 | 4.0037            | 0.75670 | 4.0443           | 0.61345 | 3.9259            | 0.76682 | 4.2750                    | 0.71476 | 0.484         | 0.747 |
| Employee Engagement                   | 5.2874                  | 1.06676 | 5.4783            | 1.09842 | 5.5568           | 0.93323 | 5.3965            | 1.01049 | 6.0273                    | 0.88871 | 1.498         | 0.202 |
| Affective Organizational Commitment   | 3.2605                  | 1.01338 | 3.2378            | 1.04326 | 3.3906           | 0.79139 | 3.5370            | 0.99611 | 4.3333                    | 0.76980 | 3.514         | 0.008 |
| Normative Organizational Commitment   | 3.2184                  | 1.02404 | 3.3609            | 0.95926 | 3.5052           | 0.85241 | 3.5000            | 0.98400 | 4.4667                    | 0.54885 | 4.293         | 0.002 |
| Continuance Organizational Commitment | 2.7778                  | 0.90885 | 2.9236            | 0.98917 | 2.8021           | 0.89229 | 3.0000            | 0.83571 | 3.4667                    | 0.83444 | 1.584         | 0.178 |
| Job Satisfaction                      | 4.5057                  | 0.92069 | 4.4761            | 0.83275 | 4.6081           | 0.79899 | 4.5116            | 0.78000 | 4.8750                    | 0.70847 | 0.734         | 0.570 |

*Source:* Compiled by the author according to research data.

### 3.5.7. Evaluation of variables according to the respondents' organization sector

To assess the differences in the respondent's evaluation of variables according to the sector organization operates in one-way ANOVA test was performed. The companies with the highest number of survey participants were selected for further analysis.



**Table 18.** *Evaluation differences of variables according to the respondents' organization sector*

| Variables                             | Financial Services (N=86) |         | Trade (N=38) |         | IT Services (N=37) |         | Health (N=36) |         | Other (N=89) |         | One-way ANOVA |       |
|---------------------------------------|---------------------------|---------|--------------|---------|--------------------|---------|---------------|---------|--------------|---------|---------------|-------|
|                                       | M                         | SD      | M            | SD      | M                  | SD      | M             | SD      | M            | SD      | f             | p     |
| Transformational Leadership           | 3.9922                    | 0.88114 | 4.0439       | 0.60365 | 4.2185             | 0.56017 | 4.0455        | 0.63605 | 3.9251       | 0.76025 | 0.686         | 0.684 |
| Employee Engagement                   | 5.4450                    | 1.13990 | 5.7344       | 0.81951 | 5.5307             | 1.02259 | 5.5427        | 0.89520 | 5.4597       | 1.00752 | 0.967         | 0.455 |
| Affective Organizational Commitment   | 3.3372                    | 0.96270 | 3.5614       | 0.90744 | 3.3604             | 1.02854 | 3.4747        | 1.00702 | 3.1685       | 0.96547 | 0.748         | 0.632 |
| Normative Organizational Commitment   | 3.2326                    | 0.95393 | 3.5965       | 0.93692 | 3.5135             | 0.82997 | 3.6061        | 0.98056 | 3.3371       | 0.98151 | 1.460         | 0.181 |
| Continuance Organizational Commitment | 2.6550                    | 0.92524 | 3.0702       | 0.96222 | 2.9910             | 0.88012 | 3.2020        | 0.77253 | 2.6816       | 0.89599 | 3.691         | <.001 |
| Job Satisfaction                      | 4.6298                    | 0.87490 | 4.5110       | 0.72446 | 4.6577             | 0.73172 | 4.6237        | 0.91693 | 4.4916       | 0.80902 | 1.102         | 0.362 |

*Source:* Compiled by the author according to research data.

The one-way ANOVA results indicate that there are no statistically significant differences in Transformational Leadership, Employee Engagement, Organizational Commitment, or Job Satisfaction across organizational sectors. While small variations in mean scores exist—for example, higher Transformational Leadership ratings in IT Services ( $M = 4.21$ ) and higher Employee Engagement in the Trade sector ( $M = 5.73$ )—these differences are not statistically significant. Similarly, organizational commitment and job satisfaction levels do not vary meaningfully across sectors.

For specific components of organizational commitment, such as Continuance Commitment, the analysis reveals a significant effect ( $F = 3.91$ ,  $p = 0.006$ ). Post-hoc tests suggest that Public Administration has significantly lower mean scores compared to other sectors, such as

Financial Services and IT Services, though these findings need careful interpretation due to the varying sample sizes across sectors. Additional information on the data comparison according to the sector the organization operates in is provided in the Annex.

### 3.5.8. Evaluation of variables according to the size of the company

The table below (Table 19) presents an analysis of differences in variables such as Transformational Leadership, Employee Engagement, Organizational Commitment, and Job Satisfaction, evaluated across different company sizes using one-way ANOVA.

**Table 19.** *Evaluation differences of variables according to the size of the company*

| Variables                             | 1-9<br>(N=65) |         | 10-49<br>(N=89) |         | 50-199<br>(N=61) |         | 200 and<br>above<br>(N=139) |         | One-way<br>ANOVA |       |
|---------------------------------------|---------------|---------|-----------------|---------|------------------|---------|-----------------------------|---------|------------------|-------|
|                                       | M             | SD      | M               | SD      | M                | SD      | M                           | SD      | f                | p     |
| Transformational Leadership           | 4.0487        | 0.60969 | 3.9260          | 0.74190 | 3.9508           | 0.74588 | 4.0618                      | 0.80921 | 0.777            | 0.507 |
| Employee Engagement                   | 5.7329        | 0.92373 | 5.2155          | 1.13557 | 5.4590           | 1.08970 | 5.4709                      | 1.01044 | 3.116            | 0.026 |
| Affective Organizational Commitment   | 3.6513        | 0.98501 | 3.1685          | 1.05663 | 3.3279           | 0.94573 | 3.2902                      | 0.96295 | 3.155            | 0.025 |
| Normative Organizational Commitment   | 3.7949        | 0.96230 | 3.2135          | 1.06630 | 3.3825           | 0.91254 | 3.3357                      | 0.88692 | 5.073            | 0.002 |
| Continuance Organizational Commitment | 3.1128        | 0.90192 | 2.7940          | 0.94081 | 2.9344           | 0.86027 | 2.8249                      | 0.97417 | 1.817            | 0.144 |
| Job Satisfaction                      | 4.6859        | 0.77655 | 4.3418          | 0.83834 | 4.4180           | 0.78580 | 4.6067                      | 0.87395 | 3.023            | 0.030 |

*Source:* Compiled by the author according to research data.

The analysis of the one-way ANOVA results reveals interesting patterns regarding how company size influences perceptions of Transformational Leadership, Employee Engagement, Organizational Commitment, and Job Satisfaction. For Transformational Leadership, no statistically significant differences were observed across different company sizes ( $F = 0.77$ ,  $p = 0.50$ ). This finding, supported by both LSD and Bonferroni post-hoc

tests, indicates that employees perceive leadership effectiveness similarly, regardless of whether they work in small, medium, or large organizations.

In contrast, Employee Engagement exhibited significant differences across company sizes ( $F = 3.60$ ,  $p = 0.02$ ). Specifically, post-hoc tests reveal that employees in companies with 1–9 employees reported significantly higher engagement compared to those in companies with 10–49 employees (mean difference = 0.51734,  $p = 0.003$ , LSD). However, no significant differences were observed between other groups, suggesting that engagement levels decline modestly as organizations grow from very small to small-to-mid-sized but stabilize thereafter for larger firms.

Organizational Commitment showed the strongest and most consistent differences across company sizes ( $F = 4.68$ ,  $p < 0.001$ ). Employees in the smallest companies (1–9 employees) reported significantly higher commitment compared to those in companies with 10–49 employees (mean difference = 0.46098,  $p < 0.001$ ) and 200+ employees (mean difference = 0.36938,  $p = 0.004$ ). These differences remained significant under both LSD and Bonferroni adjustments, highlighting a clear trend: organizational commitment decreases as company size increases. This finding suggests that smaller organizations foster a stronger sense of loyalty and connection among their employees.

Finally, Job Satisfaction also showed significant variability across company sizes ( $F = 3.02$ ,  $p = 0.03$ ). Employees in companies with 1–9 employees reported higher satisfaction compared to those in companies with 10–49 employees (mean difference = 0.3441,  $p = 0.012$ , LSD). However, no significant differences were found between other group pairs. This indicates that smaller organizations may provide environments that are more conducive to job satisfaction, but this trend diminishes as organizations grow larger. Additional information on the data comparison according to the sector the organization operates in is provided in the Annex.

### **3.5.9. Evaluation of variables according to the organizational sector**

Independent samples T-test was used to assess the differences in respondents' evaluations of the variables according to the sector of the organization.

**Table 20.** *Evaluation differences of variables according to organizational sector*

| Variables                             | Private Sector |         | Public Sector |         | t-test     |       |               |
|---------------------------------------|----------------|---------|---------------|---------|------------|-------|---------------|
|                                       | Means          | SD      | Means         | SD      | t          | p     | p (two-sided) |
| Transformational Leadership           | 4.0324         | 0.76625 | 3.8849        | 0.64609 | 1.421      | 0.347 | 0.156         |
| Employee Engagement                   | 5.4642         | 1.06994 | 5.3997        | 0.96879 | 0.441      | 0.249 | 0.659         |
| Affective Organizational Commitment   | 3.3574         | 1.02226 | 3.2169        | 0.87202 | 1.013      | 0.096 | 0.312         |
| Normative Organizational Commitment   | 3.3986         | 0.99189 | 3.3915        | 0.86455 | 0.053      | 0.252 | 0.958         |
| Continuance Organizational Commitment | 2.8477         | 0.97049 | 3.0794        | 0.74226 | -<br>1.785 | 0.006 | 0.075         |
| Job Satisfaction                      | 4.5687         | 0.82510 | 4.3069        | 0.88177 | 2.256      | 0.731 | 0.025         |

*Source:* Compiled by the author according to research data.

The table presents a comparison of Transformational Leadership, Employee Engagement, Organizational Commitment, and Job Satisfaction between employees in the private and public sectors, analyzed using independent samples t-tests. For each variable, the means (M) and standard deviations (SD) are reported for both sectors, alongside the t-value and p-value, indicating whether differences between the groups are statistically significant.

For Transformational Leadership, private sector employees reported a slightly higher mean score (M = 4.0324, SD = 0.76625) than public sector employees (M = 3.8849, SD = 0.64609). However, the difference was not statistically significant (t = 1.421, p = 0.156), suggesting that perceptions of leadership effectiveness are comparable across both sectors.

Regarding Employee Engagement, private sector employees again scored marginally higher (M = 5.4642, SD = 1.06994) compared to public sector employees (M = 5.3997, SD = 0.96879). This difference was also not significant (t = 0.441, p = 0.659), indicating that employee engagement is similarly experienced in both types of organizations.

For Affective and Normative Organizational Commitment, there were no significant differences between private and public sector employees. While the private sector showed slightly higher scores for Affective Commitment ( $M = 3.3574$ ,  $SD = 1.02226$  vs.  $M = 3.2169$ ,  $SD = 0.87202$ ), the t-test results ( $t = 1.013$ ,  $p = 0.312$ ) were not significant. Similarly, for Normative Commitment ( $M = 3.3986$ ,  $SD = 0.99189$  vs.  $M = 3.3915$ ,  $SD = 0.86455$ ), the results ( $t = 0.053$ ,  $p = 0.958$ ) did not show any meaningful difference.

For Continuance Organizational Commitment, the public sector ( $M = 3.0794$ ,  $SD = 0.74226$ ) scored slightly higher than the private sector ( $M = 2.8477$ ,  $SD = 0.97049$ ). Although the t-test ( $t = -1.785$ ,  $p = 0.075$ ) approached significance, it did not reach the conventional threshold, suggesting a potential but inconclusive difference in continuance commitment between the sectors.

The only statistically significant difference was observed in Job Satisfaction. Private sector employees ( $M = 4.5687$ ,  $SD = 0.82510$ ) reported significantly higher satisfaction compared to public sector employees ( $M = 4.3069$ ,  $SD = 0.88177$ ). This difference was confirmed by the t-test results ( $t = 2.256$ ,  $p = 0.025$ ). Additional information on the data comparison according to the sector the organization operates in is provided in the Annex.

In conclusion, statistically significant differences between the following were discovered after comparing the averages of the variables with the respondents' demographic and organizational features:

First, gender differences were evident in how respondents rated key variables. Male employees rated Transformational Leadership, Employee Engagement, and Job Satisfaction significantly higher than female employees, with p-values of 0.017, 0.012, and 0.016, respectively. However, gender differences were not significant for Affective or Continuance Organizational Commitment, indicating that perceptions of organizational loyalty and necessity-based attachment were similar across genders.

Second, age-related differences were prominent, particularly for Employee Engagement and Organizational Commitment (both  $p = 0.006$ ). Older employees, especially those aged 55 and above, reported significantly higher engagement and commitment levels compared to their younger counterparts. This suggests that engagement and commitment may strengthen with age, possibly due to increased workplace experience and attachment. In contrast, Transformational Leadership and Job Satisfaction showed no significant differences across age groups, implying that these perceptions remain consistent irrespective of age.

Third, work experience played a crucial role in shaping Job Satisfaction and Organizational Commitment. Respondents with more than 10 years of experience reported significantly

higher satisfaction ( $p = 0.016$ ) and commitment ( $p = 0.011$ ), emphasizing the positive impact of tenure on workplace attachment and morale. However, Employee Engagement and perceptions of Transformational Leadership did not differ significantly based on years of experience, indicating that these factors may not be influenced by tenure alone.

Fourth, organizational size significantly influenced Employee Engagement ( $p = 0.026$ ), Organizational Commitment ( $p = 0.007$ ), and Job Satisfaction ( $p = 0.030$ ). Employees in smaller organizations (1–9 employees) consistently reported higher levels of engagement, commitment, and satisfaction compared to those in larger companies. This suggests that smaller organizational environments may foster stronger workplace bonds and greater satisfaction, potentially due to closer relationships and fewer bureaucratic constraints. However, Transformational Leadership remained unaffected by organizational size.

Fifth, the organizational sector was a significant determinant of Job Satisfaction. Employees in the private sector reported significantly higher satisfaction levels ( $p = 0.025$ ) compared to those in the public sector, possibly reflecting differences in work environments, policies, or incentive structures. However, there were no significant sector-based differences for Transformational Leadership, Employee Engagement, or Organizational Commitment, indicating that these perceptions are consistent across sectors.

Supervisory roles also influenced key workplace outcomes. Supervisors exhibited significantly higher levels of Employee Engagement ( $p = 0.017$ ) and Organizational Commitment across its dimensions, including Affective ( $p < 0.001$ ), Normative ( $p = 0.003$ ), and Continuance Commitment ( $p = 0.013$ ), compared to non-supervisors. This suggests that taking on supervisory responsibilities may enhance employees' workplace attachment and engagement. However, Job Satisfaction and perceptions of Transformational Leadership were consistent regardless of supervisory roles.

Interestingly, education level did not significantly influence any of the variables. While there were minor variations (e.g., higher ratings among employees with Ph.D. degrees), these differences were not statistically significant. This indicates that education level does not substantially impact perceptions of leadership, engagement, commitment, or satisfaction.

Tenure within the current organization significantly influenced Organizational Commitment ( $p = 0.011$ ) and Job Satisfaction ( $p = 0.037$ ). Employees with over 20 years of organizational tenure reported the highest levels of commitment and satisfaction, underscoring the positive effects of long-term relationships with the organization. However, Transformational Leadership and Employee Engagement did not vary significantly with tenure.

Demographic factors such as gender and age, along with organizational features like company size, sector, and tenure, play significant roles in shaping employees' perceptions of engagement, commitment, and satisfaction. However, perceptions of Transformational Leadership remain consistent across these variables, suggesting its universal applicability in diverse workplace contexts. These findings highlight the importance of tailoring workplace strategies to address disparities in engagement, commitment, and satisfaction while leveraging the stable perception of leadership to drive organizational success.

### **3.6. The influence of transformational leadership on employee engagement, organizational commitment, and job satisfaction research analysis**

To investigate the relationships between transformational leadership, employee engagement, organizational commitment, and job satisfaction, thus identifying whether employee engagement and job satisfaction have a moderation and mediation effect, linear regression, moderation, and mediation analysis was performed. The analysis will confirm or reject the following hypothesis:

**H1a Transformational leadership positively influences affective organizational commitment.**

**H1b Transformational leadership positively influences continuance organizational commitment.**

**H1c Transformational leadership positively influences normative organizational commitment.**

**H2a Employee engagement mediates the relationship between transformational leadership and affective organizational commitment.**

**H2b Employee engagement mediates the relationship between transformational leadership and normative organizational commitment.**

**H2c Employee engagement mediates the relationship between transformational leadership and continuance organizational commitment.**

**H3a Job Satisfaction mediates the relationship between transformational leadership and affective organizational commitment.**

**H3b Job Satisfaction mediates the relationship between transformational leadership and normative organizational commitment.**

**H3c Job Satisfaction mediates the relationship between transformational leadership and continuance organizational commitment.**

The relationship between transformational leadership and organizational commitment is shown below:

**Table 21.** *Relationship between transformational leadership and organizational commitment*

| Independent Variable (X)    | Dependent Variable (Y)    | Adjusted R Square | ANOVA (F) | ANOVA P value | Unstandardized B | P value | VIF |
|-----------------------------|---------------------------|-------------------|-----------|---------------|------------------|---------|-----|
| Transformational Leadership | Organizational Commitment | 0.217             | 98.977    | <0.001        | 0.537            | <0.001  | 1   |

*Source:* Compiled by the author according to research data.

Based on the linear regression analysis results, the adjusted R square value of 0.217 suggests that 21.7% of the variance in Organizational Commitment can be predicted by Transformational Leadership. The positive unstandardized coefficient  $B=0.537$  and p-value  $<0.001$  indicate a statistically significant positive relationship between Transformational Leadership and Organizational Commitment. Additional information on the linear regression analysis is provided in the Annex.

The relationship between transformational leadership and affective organizational commitment is shown below:

**Table 22.** *Relationship between transformational leadership and affective organizational commitment*

| Independent Variable (X)    | Dependent Variable (Y)              | Adjusted R Square | ANOVA (F) | ANOVA P value | Unstandardized B | P value | VIF |
|-----------------------------|-------------------------------------|-------------------|-----------|---------------|------------------|---------|-----|
| Transformational Leadership | Affective Organizational Commitment | 0.215             | 97.483    | <0.001        | 0.621            | <0.001  | 1   |

*Source:* Compiled by the author according to research data.

Based on the linear regression analysis results, the adjusted R square value of 0.215 indicates that 21.5% of the variance in Affective Organizational Commitment can be explained by Transformational Leadership. The unstandardized coefficient ( $B=0.621$ ) and the p-value ( $<0.001$ ) demonstrate a statistically significant positive relationship between Transformational Leadership and Affective Organizational Commitment. The ANOVA result ( $F=97.483$ ,  $p<0.001$ ) further confirms the significance of the model. Therefore, the **H1a**



**hypothesis is confirmed.** Additional information on the linear regression analysis is provided in the Annex.

The relationship between transformational leadership and continuance organizational commitment is shown below:

**Table 23.** *Relationship between transformational leadership and continuance organizational commitment*

| Independent Variable (X)    | Dependent Variable (Y)                | Adjusted R Square | ANOVA (F) | ANOVA P value | Unstandardized B | P value | VIF |
|-----------------------------|---------------------------------------|-------------------|-----------|---------------|------------------|---------|-----|
| Transformational Leadership | Continuance Organizational Commitment | 0.089             | 35.318    | <0.001        | 0.379            | <0.001  | 1   |

*Source:* Compiled by the author according to research data.

Based on the linear regression analysis results, the adjusted R square value of 0.189 indicates that 18.9% of the variance in Continuance Organizational Commitment can be explained by Transformational Leadership. The unstandardized coefficient (B=0.379) and the p-value (<0.001) demonstrate a statistically significant positive relationship between Transformational Leadership and Continuance Organizational Commitment. The ANOVA result (F=35.318,  $p < 0.001$ ) further confirms the significance of the model. Therefore, the **H1b hypothesis is confirmed.** Additional information on the linear regression analysis is provided in the Annex.

The relationship between transformational leadership and normative organizational commitment is shown below:

**Table 24.** *Relationship between transformational leadership and normative organizational commitment*

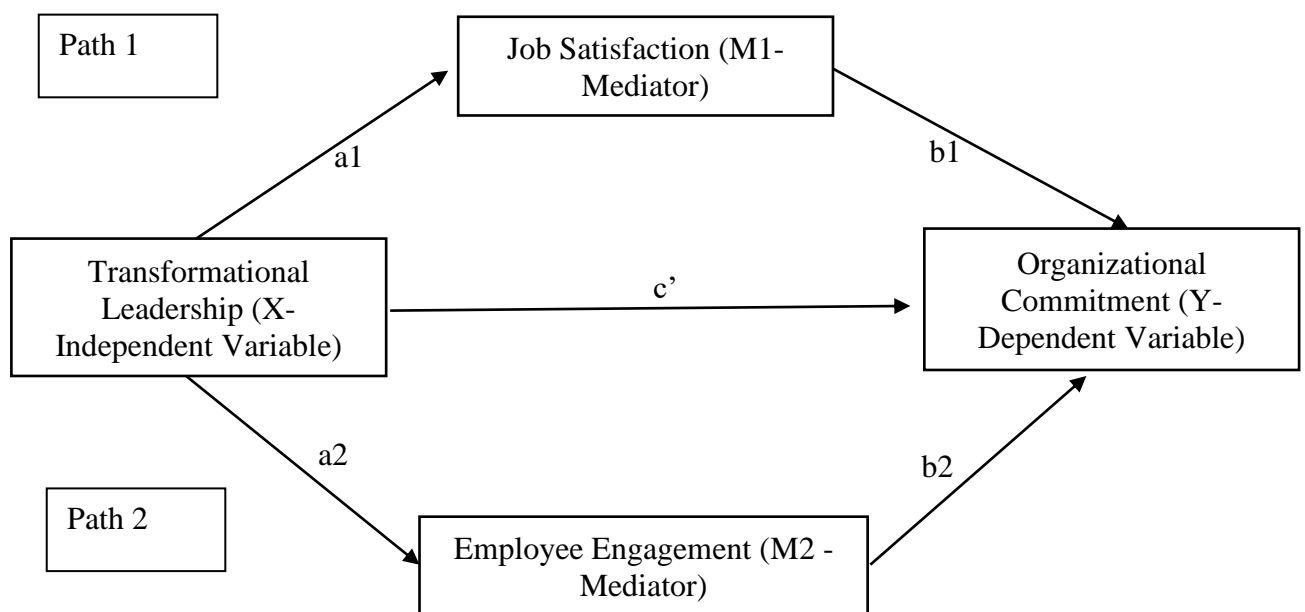
| Independent Variable (X)    | Dependent Variable (Y)              | Adjusted R Square | ANOVA (F) | ANOVA P value | Unstandardized B | P value | VIF |
|-----------------------------|-------------------------------------|-------------------|-----------|---------------|------------------|---------|-----|
| Transformational Leadership | Normative Organizational Commitment | 0.220             | 100.457   | <0.001        | 0.611            | <0.001  | 1   |

*Source:* Compiled by the author according to research data.

Based on the linear regression analysis results, the adjusted R square value of 0.220 indicates that 22.0% of the variance in Normative Organizational Commitment can be explained by Transformational Leadership. The unstandardized coefficient ( $B=0.611$ ) and the p-value ( $<0.001$ ) demonstrate a statistically significant positive relationship between Transformational Leadership and Normative Organizational Commitment. The ANOVA result ( $F=100.457$ ,  $p < 0.001$ ) further confirms the significance of the model. Therefore, the **H1c hypothesis is confirmed**. Additional information on the linear regression analysis is provided in the Annex.

The mediation analysis will be carried out according to the parallel mediation diagram shown in Figure 5

Figure 5. *Parallel mediation diagram*



Source: Created by the author.

Path 1 (Indirect effect) =  $a1 * b1$

Path 2 (Indirect effect) =  $a2 * b2$

The direct and indirect relationships between transformational leadership, job satisfaction, and organizational commitment (all its dimensions) are shown in Table 25, Table 26, and Table 27.

**Table 25.** *The direct relationship between transformational leadership, job satisfaction, and organizational commitment (all its dimensions)*

| <i>Direct effect</i> |                                 |                                       |          |          |          |             |             |
|----------------------|---------------------------------|---------------------------------------|----------|----------|----------|-------------|-------------|
| <i>Path 1</i>        | <i>Independent Variable (X)</i> | <i>Dependent Variable (Y)</i>         | <i>b</i> | <i>t</i> | <i>p</i> | <i>LLCI</i> | <i>ULCI</i> |
| a1                   | Transformational Leadership     | Job Satisfaction                      | 0.7307   | 16.0532  | 0.0000   | 0.6412      | 0.8202      |
| b1                   | Job Satisfaction                | Affective Organizational Commitment   | 0.6871   | 10.7290  | 0.0000   | 0.5612      | 0.8131      |
|                      |                                 | Normative Organizational Commitment   | 0.4249   | 6.2466   | 0.0000   | 0.2911      | 0.5587      |
|                      |                                 | Continuance Organizational Commitment | 0.0690   | 0.8395   | 0.4018   | -0.0926     | 0.2305      |

Source: Compiled by the author according to research data.

**Table 26.** *The indirect effect of transformational leadership on organizational commitment (all its dimensions) through job satisfaction*

| <i>Indirect effect</i> |                                 |                      |                                       |               |             |             |
|------------------------|---------------------------------|----------------------|---------------------------------------|---------------|-------------|-------------|
| <i>Path 1</i>          | <i>Independent Variable (X)</i> | <i>Mediator (M1)</i> | <i>Dependent Variable (Y)</i>         | <i>Effect</i> | <i>LLCI</i> | <i>ULCI</i> |
|                        | Transformational Leadership     | Job Satisfaction     | Affective Organizational Commitment   | 0.5021        | 0.3878      | 0.6333      |
|                        |                                 |                      | Normative Organizational Commitment   | 0.2919        | 0.1587      | 0.4100      |
|                        |                                 |                      | Continuance Organizational Commitment | 0.0504        | -0.0706     | 0.1780      |

Source: Compiled by the author according to research data.

**Table 27.** *The total and direct effect of transformational leadership on organizational commitment (all its dimensions) through job satisfaction*

| <i>Total effect (c)</i>         |                                     |               |          |          |             |             |
|---------------------------------|-------------------------------------|---------------|----------|----------|-------------|-------------|
| <i>Independent Variable (X)</i> | <i>Dependent Variable (Y)</i>       | <i>Effect</i> | <i>t</i> | <i>p</i> | <i>LLCI</i> | <i>ULCI</i> |
| Transformational Leadership     | Affective Organizational Commitment | 0.6214        | 9.8734   | 0.0000   | 0.4976      | 0.7452      |
|                                 | Normative Organizational Commitment | 0.6110        | 10.0228  | 0.0000   | 0.4911      | 0.7308      |

Continuation of Table 27

|                                 |                                       |               |          |          |             |             |
|---------------------------------|---------------------------------------|---------------|----------|----------|-------------|-------------|
|                                 | Continuance Organizational Commitment | 0.3786        | 5.9429   | 0.0000   | 0.2533      | 0.5039      |
| <i>Direct (c')</i>              |                                       |               |          |          |             |             |
| <i>Independent Variable (X)</i> | <i>Dependent Variable (Y)</i>         | <i>Effect</i> | <i>t</i> | <i>p</i> | <i>LLCI</i> | <i>ULCI</i> |
| Transformational Leadership     | Affective Organizational Commitment   | 0.1193        | 1.6575   | 0.0983   | -0.0223     | 0.2609      |
|                                 | Normative Organizational Commitment   | 0.0719        | 1.0810   | 0.2805   | -0.0589     | 0.2028      |
|                                 | Continuance Organizational Commitment | 0.1242        | 1.5458   | 0.1230   | -0.0338     | 0.2822      |

Source: Compiled by the author according to research data.

The direct and indirect relationships between transformational leadership, employee engagement, and organizational commitment (all its dimensions) are shown in Table 28, Table 29, and Table 30.

**Table 28.** *The direct relationship between transformational leadership, employee engagement, and organizational commitment (all its dimensions)*

| <i>Direct effect</i> |                                 |                                       |          |          |          |             |             |
|----------------------|---------------------------------|---------------------------------------|----------|----------|----------|-------------|-------------|
| <i>Path 2</i>        | <i>Independent Variable (X)</i> | <i>Dependent Variable (Y)</i>         | <i>b</i> | <i>t</i> | <i>p</i> | <i>LLCI</i> | <i>ULCI</i> |
| a2                   | Transformational Leadership     | Employee Engagement                   | 0.7088   | 10.9448  | 0.0000   | 0.5815      | 0.8362      |
| b2                   | Employee Engagement             | Affective Organizational Commitment   | 0.3997   | 8.3816   | 0.0000   | 0.3059      | 0.4935      |
|                      |                                 | Normative Organizational Commitment   | 0.3224   | 6.7444   | 0.0000   | 0.2284      | 0.4165      |
|                      |                                 | Continuance Organizational Commitment | 0.2878   | 4.9844   | 0.0000   | 0.1742      | 0.4013      |

Source: Compiled by the author according to research data.

**Table 29.** *The indirect effect of transformational leadership on organizational commitment (all its dimensions) through employee engagement*

| <i>Indirect effect</i> |                                 |                      |                                       |               |             |             |
|------------------------|---------------------------------|----------------------|---------------------------------------|---------------|-------------|-------------|
| <i>Path</i>            | <i>Independent Variable (X)</i> | <i>Mediator (M1)</i> | <i>Dependent Variable (Y)</i>         | <i>Effect</i> | <i>LLCI</i> | <i>ULCI</i> |
| 2                      | Transformational Leadership     | Employee Engagement  | Affective Organizational Commitment   | 0.2833        | 0.2013      | 0.3756      |
|                        |                                 |                      | Normative Organizational Commitment   | 0.2286        | 0.1501      | 0.3157      |
|                        |                                 |                      | Continuance Organizational Commitment | 0.2040        | 0.1112      | 0.2977      |

*Source:* Compiled by the author according to research data.

**Table 30.** *The total and direct effect of transformational leadership on organizational commitment through employee engagement*

| <i>Total effect (c)</i>         |                                       |               |          |          |             |             |
|---------------------------------|---------------------------------------|---------------|----------|----------|-------------|-------------|
| <i>Independent Variable (X)</i> | <i>Dependent Variable (Y)</i>         | <i>Effect</i> | <i>t</i> | <i>p</i> | <i>LLCI</i> | <i>ULCI</i> |
| Transformational Leadership     | Affective Organizational Commitment   | 0.6214        | 9.8734   | 0.0000   | 0.4976      | 0.7452      |
|                                 | Normative Organizational Commitment   | 0.6110        | 10.0228  | 0.0000   | 0.4911      | 0.7308      |
|                                 | Continuance Organizational Commitment | 0.3786        | 5.9429   | 0.0000   | 0.2533      | 0.5039      |
| <i>Direct (c')</i>              |                                       |               |          |          |             |             |
| <i>Independent Variable (X)</i> | <i>Dependent Variable (Y)</i>         | <i>Effect</i> | <i>t</i> | <i>p</i> | <i>LLCI</i> | <i>ULCI</i> |
| Transformational Leadership     | Affective Organizational Commitment   | 0.0462        | 0.6959   | 0.4870   | -0.0843     | 0.1767      |
|                                 | Normative Organizational Commitment   | 0.0719        | 1.0810   | 0.2805   | -0.0589     | 0.2028      |
|                                 | Continuance Organizational Commitment | 0.1242        | 1.5458   | 0.1230   | -0.0338     | 0.2822      |

*Source:* Compiled by the author according to research data.

The analysis provides a clear understanding of the mediating roles of employee engagement and job satisfaction in the relationship between transformational leadership and the three

dimensions of organizational commitment: affective commitment, normative commitment, and continuance commitment.

The results indicate that the indirect effect of transformational leadership on affective organizational commitment through employee engagement is significant. The indirect effect is 0.3997 (BootSE = 0.0477, BootLLCI = 0.3059, BootULCI = 0.4935), and the direct effect becomes non-significant at 0.0462 ( $p = 0.4870$ ). This suggests full mediation, where transformational leadership influences affective commitment entirely through employee engagement. Therefore, **H2a is accepted**, indicating that transformational leadership positively impacts affective organizational commitment through increased employee engagement. Similarly, the results show that the indirect effect of transformational leadership on normative organizational commitment via employee engagement is significant. The indirect effect is 0.3224 (BootSE = 0.0478, BootLLCI = 0.2284, BootULCI = 0.4165). The direct effect of transformational leadership on normative commitment is 0.0719 ( $p = 0.2805$ ), which is not significant. This indicates full mediation, where employee engagement fully explains the relationship. Consequently, **H2b is accepted**, suggesting that transformational leadership enhances normative organizational commitment by improving employee engagement.

Furthermore, the indirect effect of transformational leadership on continuance organizational commitment through employee engagement is also significant. The indirect effect is 0.2878 (BootSE = 0.0577, BootLLCI = 0.1742, BootULCI = 0.4013), while the direct effect is 0.1242 ( $p = 0.1230$ ), which is not significant. These results indicate full mediation, where transformational leadership indirectly influences continuance commitment via employee engagement. Thus, **H2c is accepted**, confirming that transformational leadership positively impacts continuance organizational commitment through enhanced employee engagement.

The analysis also shows that job satisfaction significantly mediates the relationship between transformational leadership and affective organizational commitment. The indirect effect is 0.2919 (BootSE = 0.0411, BootLLCI = 0.2199, BootULCI = 0.3906). The direct effect of transformational leadership on affective commitment is 0.0462 ( $p = 0.4870$ ), which is not significant, indicating full mediation. Therefore, **H3a is accepted**, suggesting that job satisfaction fully mediates the positive relationship between transformational leadership and affective organizational commitment. Job satisfaction also significantly mediates the relationship between transformational leadership and normative organizational commitment. The indirect effect is 0.4249 (BootSE = 0.0680, BootLLCI = 0.2911, BootULCI = 0.5587). The direct effect of transformational leadership on normative commitment is 0.0719 ( $p =$

0.2805), which is not significant. This confirms full mediation, therefore **H3b is accepted**, where job satisfaction mediates the relationship between transformational leadership and normative organizational commitment.

However, the results do not support job satisfaction as a mediator in the relationship between transformational leadership and continuance organizational commitment. The indirect effect is 0.0504 (BootSE = 0.0630, BootLLCI = -0.0706, BootULCI = 0.1780), with the confidence interval including zero. Additionally, the direct effect of transformational leadership on continuance commitment is 0.1242 ( $p = 0.1230$ ), which is also not significant. Therefore, **H3c is rejected**, indicating that job satisfaction does not mediate the relationship between transformational leadership and continuance organizational commitment.

In summary, the results demonstrate that employee engagement fully mediates the relationship between transformational leadership and all three dimensions of organizational commitment: affective, normative, and continuance commitment. Conversely, job satisfaction fully mediates the relationships between transformational leadership and affective and normative commitments but does not mediate the relationship with continuance commitment. These findings highlight the critical roles of employee engagement and job satisfaction as mechanisms through which transformational leadership enhances organizational commitment. Transformational leadership fosters an inspiring work environment that boosts employee engagement and satisfaction, which in turn strengthens affective and normative commitments. However, for continuance commitment, only employee engagement serves as a significant mediator, suggesting that job satisfaction does not play a role in influencing this dimension. Overall, the findings underscore the ways in which transformational leadership interacts with psychological and emotional variables to influence organizational outcomes.

**Table 31.** *Hypothesis Testing Results*

| Hypothesis  | Findings   | Conclusions  |
|---|--|--|
| H1a: Transformational leadership positively influences affective organizational commitment.   | Supported: A significant positive relationship was observed. | Transformational leadership enhances affective commitment through inspiration and motivation.    |
| H1b: Transformational leadership positively influences continuance organizational commitment. | Supported: A significant positive relationship was observed. | Transformational leadership strengthens continuance commitment by fostering a sense of value.    |
| H1c: Transformational leadership positively influences normative organizational commitment.   | Supported: A significant positive relationship was observed. | Transformational leadership increases normative commitment through ethical and moral influences. |

|   |   |  |
|---|---|--|
| H2a: Employee engagement mediates the relationship between transformational leadership and affective organizational commitment.   | Supported: Employee engagement fully mediates the relationship.             | Employee engagement acts as a key mediator, linking leadership to affective commitment.  |
| H2b: Employee engagement mediates the relationship between transformational leadership and normative organizational commitment.   | Supported: Employee engagement fully mediates the relationship.             | Employee engagement mediates the link between transformational leadership and normative commitment.  |
| H2c: Employee engagement mediates the relationship between transformational leadership and continuance organizational commitment. | Supported: Employee engagement fully mediates the relationship.             | Employee engagement plays a partial mediating role for continuance commitment.   |
| H3a: Job satisfaction mediates the relationship between transformational leadership and affective organizational commitment.      | Supported: Job satisfaction fully mediates the relationship.                | Job satisfaction significantly mediates affective commitment outcomes.   |
| H3b: Job satisfaction mediates the relationship between transformational leadership and normative organizational commitment.      | Supported: Job satisfaction fully mediates the relationship.                | Job satisfaction mediates normative commitment, enhancing ethical loyalty.   |
| H3c: Job satisfaction mediates the relationship between transformational leadership and continuance organizational commitment.    | Rejected: No significant mediating effect of job satisfaction was observed. | Job satisfaction is not supported as a mediator in the relationship between transformational leadership and continuance organizational commitment. |

*Source:* Compiled by the author according to research data.



## CONCLUSION AND RECOMMENDATION

The following key elements were determined following the examination of the empirical investigation and the scientific literature:

- Transformational leadership directly influences employee engagement by inspiring employees and fostering a shared sense of purpose. Leaders who exhibit transformational qualities, such as idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, create an environment where employees feel valued and are motivated to contribute at higher levels.
- Job satisfaction plays a pivotal mediating role in the relationship between transformational leadership, employee engagement, and organizational commitment. Leaders who create a supportive work environment and recognize individual contributions enhance employees' emotional and professional fulfillment, leading to increased satisfaction.
- Transformational leadership fosters organizational commitment by aligning employees' personal and professional goals with the organization's vision. Employees develop a sense of loyalty and moral obligation to the organization, reducing turnover intentions and strengthening engagement.
- This study highlighted that not all managers possess inherent transformational qualities. This necessitates targeted leadership development programs to cultivate transformational traits. Cultural and contextual factors also influence the effectiveness of transformational leadership, requiring its adaptation to fit organizational and regional needs.
- The findings emphasize a positive feedback loop where transformational leadership enhances job satisfaction, which increases engagement and deepens organizational commitment. This synergy drives higher productivity, innovation, and organizational resilience, demonstrating the strategic importance of transformational leadership in competitive markets.

Based on the results, the following recommendations are proposed:

- Organizations should prioritize training and development programs to instill transformational leadership qualities among managers. These programs should focus on communication skills, motivation techniques, and personalized employee support to foster engagement and satisfaction.

- Establish a culture of transparency where employees feel empowered to share ideas, voice concerns, and participate in decision-making processes. Open communication builds trust, strengthens engagement, and aligns employees with organizational goals.
- Implement robust recognition programs to celebrate individual and team achievements. Acknowledging contributions reinforces job satisfaction and commitment, creating a more motivated and loyal workforce.
- Recognize the varying stress levels and needs of employees by providing mental health resources, workload management tools, and flexible work arrangements. These initiatives help maintain high engagement while mitigating burnout risks.
- Conduct periodic evaluations of leadership effectiveness on employee engagement, job satisfaction, and organizational commitment. Use these insights to refine leadership strategies, ensuring alignment with evolving employee expectations and organizational objectives.

By adopting these recommendations, organizations can leverage transformational leadership to create a committed, engaged, and satisfied workforce. This will not only enhance employee well-being but also drive organizational success and sustainability in competitive business environments.

Future research should adopt a longitudinal strategy that covers several years in order to accurately determine the long-lasting effects of transformational leadership on employee engagement and organizational commitment. This would offer valuable information into the progression or endurance of these effects.

There is a necessity for research that encompasses a wide range of sectors and cultural contexts. This would facilitate comprehension of the universality or uniqueness of this research's findings, taking into account diverse corporate cultures and business environment. Examining the impact of transformational leadership on promoting innovation and adaptability within businesses, specifically in relation to market dynamics and advancements in technology, is of utmost importance.

Future research should prioritize investigating the psychological dimensions of transformational leadership and its effects on employee mental health, stress levels, and overall well-being. This is particularly important due to the growing recognition of mental health issues in the workplace.

Further investigation is needed to understand how digitalization affects leadership dynamics, specifically in the context of digital transformation, remote work settings, digital communication tools, and virtual team dynamics.

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## **ANNEXES**

### **Annex 1. Research Questionnaire**

An Investigation of the Influence of Transformational Leadership on Employee Engagement, Organizational Commitment, and Job Satisfaction.

You are being invited to complete an online survey as part of a Master's course being undertaken by Nnaemeka Anthony Nwankwo, a student at Vilnius University in Lithuania studying a Master's in Human Resources Management. Don't hesitate to contact me if you have any questions or want more information. You are eligible to take part in this study if you are working in any work sector and aged 18 years and above.

#### **Study Overview**

This research aims to examine the impact of the impact of transformational leadership on employee engagement, organizational commitment, and job satisfaction.

The study's objectives include:

- To investigate and explain the influence of transformational leadership on employee engagement, organizational commitment, and job satisfaction.
- To understand how transformational leadership, with its motivational and inspirational qualities, shapes an environment conducive to heightened employee engagement, and commitment.
- To examine the interconnections between these elements, and how they affect employee's job satisfaction.
- To identify the challenges and barriers faced in implementing transformational leadership within organizations.

#### **Participation Details**

Should you choose to take part in this study, you will be asked to complete an online survey/questionnaire. This survey/questionnaire will focus on assessing the Influence of Transformational Leadership on Employee Engagement, Organizational Commitment, and Job Satisfaction. The time required to complete the survey is estimated at approximately 10-15 minutes.

#### **Potential Benefits and Risks**

Although you may not directly gain from your involvement in this research, we aspire that your participation will contribute to stakeholders by providing relevant information useful for various work sectors. No anticipated risks are associated with your participation. The

information you provide in the questionnaire will be used exclusively for academic purposes and will be treated with the utmost confidentiality. All study data will be securely stored on my system, with my exclusive access, and will be deleted upon completion of my assessment.

### **Utilization of Findings**

The outcomes of this study will assist the researcher in obtaining relevant information essential for formulating solutions to the research questions.

### **Ethical Approval**

This study has received ethical approval from Vilnius University. If you require more information or have additional queries concerning this project, please feel free to contact me via email at [nnaemeka.nwankwo@evaf.stud.vu.lt](mailto:nnaemeka.nwankwo@evaf.stud.vu.lt). If you opt not to partake in this survey, simply close your browser.

Conversely, if you are interested in participating, please peruse the statements below and then fill them out.

#### 1. Gender

- Male
- Female
- Other

#### 2. Age (Please type in your age)

#### 3. Educational Background

- High School
- Bachelor's Degree
- Master's Degree
- Ph.D.
- Other

#### 4. Work Experience (Years spent working for different organizations)

- Less than 1 year
- 1-3 years
- 4-6 years
- 7-10 years
- More than 10 years

5. Do you have employees under your supervision?

- Yes
- No

6. How many years have you spent working in your current organization?

- Less than 1 year
- 1-3 years
- 4-6 years
- 7-10 years
- More than 20 years

7. In what sector does your organization operate?

- Public Administration
- Financial Services
- IT Services
- Education
- Health Services
- Manufacturing
- Trade
- Other

8. How big is your organization?

- 1-9
- 10-49
- 50-199
- 200

and

Above

9. In what sector does your organization operate?

- Private Sector
- Public Sector

10. Tell us about your supervisor

|   | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>agree |
|---|----------------------|----------|---------|-------|-------------------|
| My supervisor instills pride in others.                                   |                      |          |         |       |                   |
| My supervisor acts in ways that build respect.                            |                      |          |         |       |                   |
| My supervisor goes beyond self-interest for the good of the team.         |                      |          |         |       |                   |
| My supervisor talks optimistically about the future.                      |                      |          |         |       |                   |
| My supervisor talks enthusiastically about what needs to be accomplished. |                      |          |         |       |                   |
| My supervisor articulates a   |                      |          |         |       |                   |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| compelling vision of the future.   |  |  |  |  |  |
| My supervisor re-examines critical assumptions to see if they are suitable.                              |  |  |  |  |  |
| My supervisor seeks different perspectives/opinions when solving problems.                               |  |  |  |  |  |
| My supervisor gets others to look at problems from many different angles.                                |  |  |  |  |  |
| My supervisor spends time teaching and coaching staff members.   |  |  |  |  |  |
| My supervisor considers an individual as having different needs, abilities, and aspirations from others. |  |  |  |  |  |
| My supervisor helps others to develop their strengths.   |  |  |  |  |  |

11. Tell us how you feel about your engagement at work.

|  | Never | Almost<br>Never | Rarely | Sometimes | Often | Very<br>Often | Always |
|--|-------|-----------------|--------|-----------|-------|---------------|--------|
| At my work, I feel bursting with energy.                 |       |                 |        |           |       |               |        |
| At my job, I feel strong and vigorous.                   |       |                 |        |           |       |               |        |
| When I get up in the morning, I feel like going to work. |       |                 |        |           |       |               |        |
| At my job, I am very resilient, mentally.                |       |                 |        |           |       |               |        |
| I find the work that I do full of meaning and purpose.   |       |                 |        |           |       |               |        |
| I am enthusiastic about my job.                          |       |                 |        |           |       |               |        |
| My job inspires me.                                      |       |                 |        |           |       |               |        |
| I am proud of the work that I do.                        |       |                 |        |           |       |               |        |
| Time flies when I'm working.                             |       |                 |        |           |       |               |        |
| I feel happy when I am working intensely.                |       |                 |        |           |       |               |        |
| I am immersed in my work.                                |       |                 |        |           |       |               |        |

12. Tell us how you feel about your commitment to your organization.

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly agree |
|--|-------------------|----------|---------|-------|----------------|
| I would be very happy to spend the rest of my career with my present organization.                     |                   |          |         |       |                |
| I really feel as if this organization's problems are my own.   |                   |          |         |       |                |
| This organization has a great deal of personal meaning for me.   |                   |          |         |       |                |
| It would be very hard for me to leave my organization right now, even if I wanted to.                  |                   |          |         |       |                |
| Too much of my life would be disrupted if I decided I wanted to leave my organization now.             |                   |          |         |       |                |
| If I had not already put so much of myself into this organization, I might consider working elsewhere. |                   |          |         |       |                |
| This organization deserves my loyalty.   |                   |          |         |       |                |
| I would not leave my organization right now because I have a sense of obligation to the people in it.  |                   |          |         |       |                |
| I owe a great deal to my organization.   |                   |          |         |       |                |

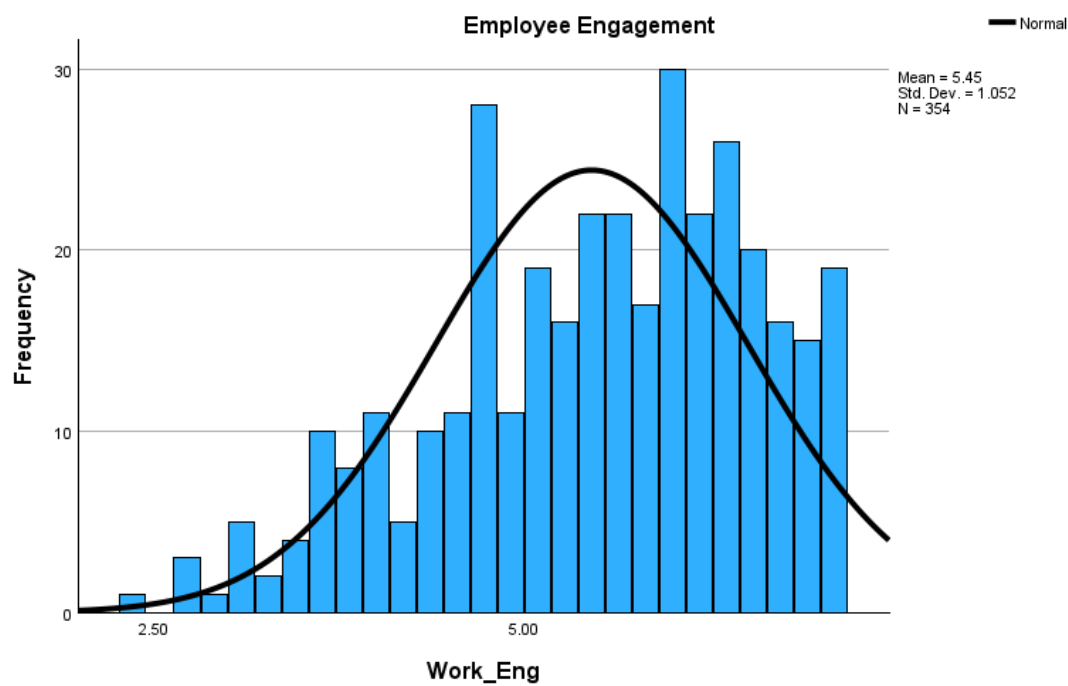
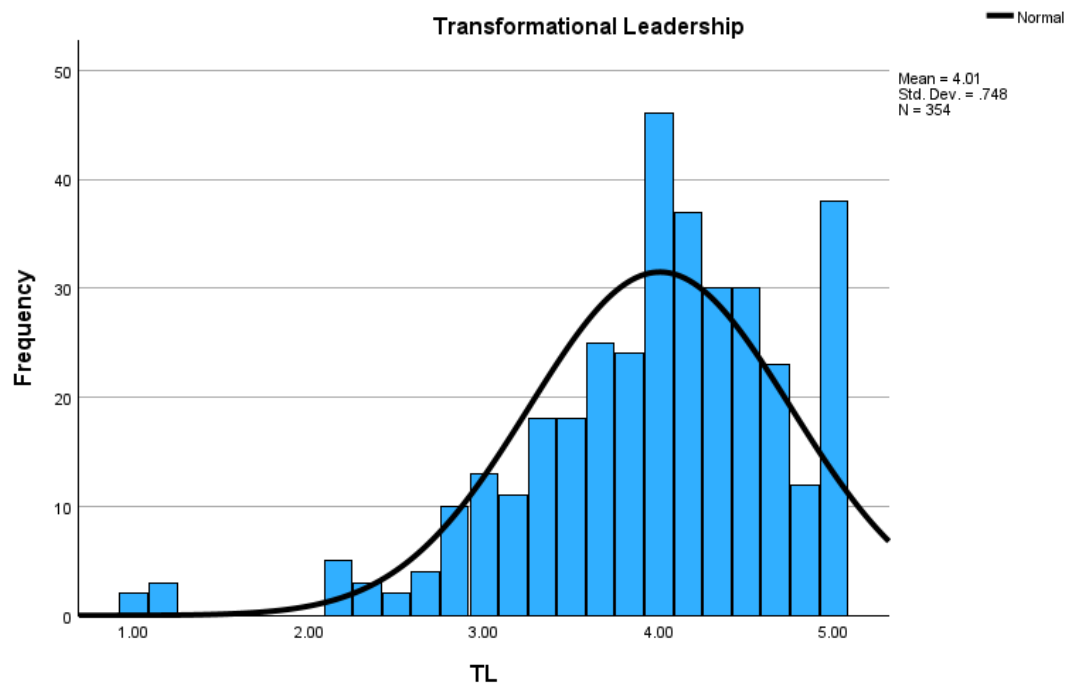
13. Tell us how satisfied you feel about your job.

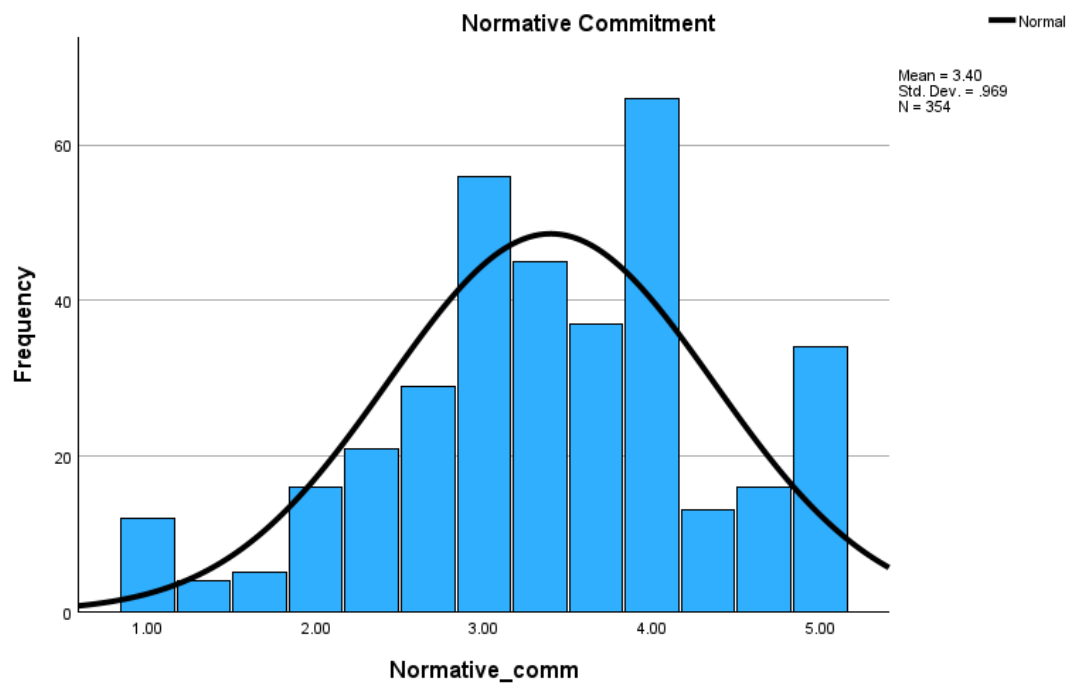
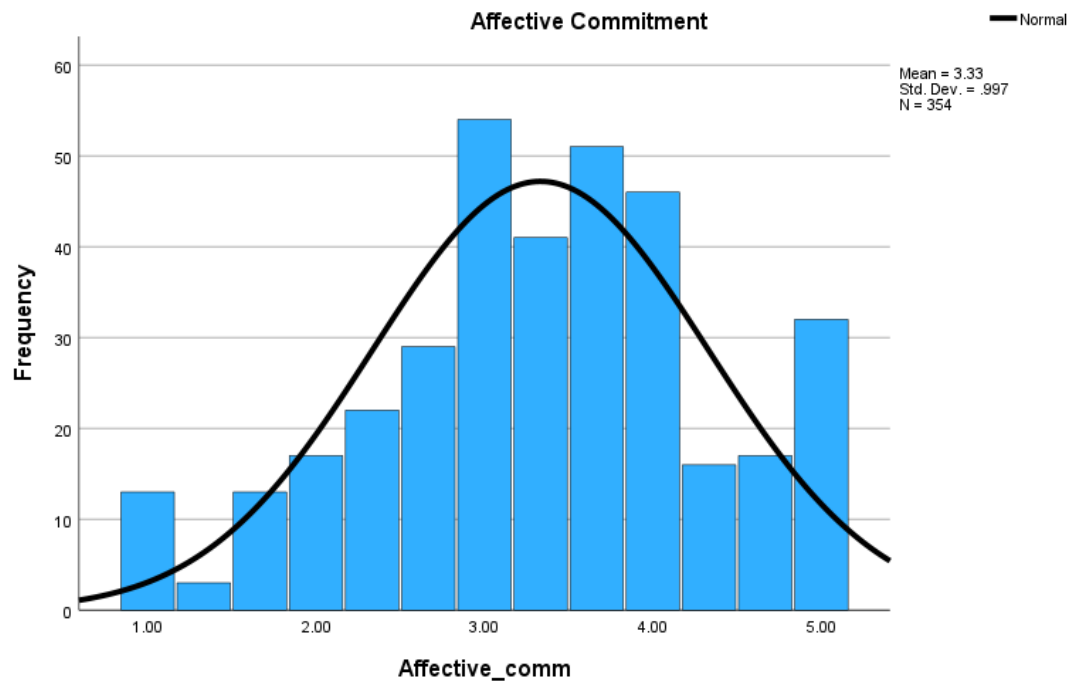
|   | Strongly Disagree | Disagree | Slightly Disagree | Slightly Agree | Agree | Strongly Agree |
|---|-------------------|----------|-------------------|----------------|-------|----------------|
| I feel I am being paid a fair amount for the work I do.                       |                   |          |                   |                |       |                |
| When I do a good job, I receive the recognition for it that I should receive. |                   |          |                   |                |       |                |
| I feel unappreciated by the organization when I think about what they pay me. |                   |          |                   |                |       |                |
| My supervisor is quite competent in doing his/her job.                        |                   |          |                   |                |       |                |
| My supervisor shows too little interest in the feelings of                    |                   |          |                   |                |       |                |

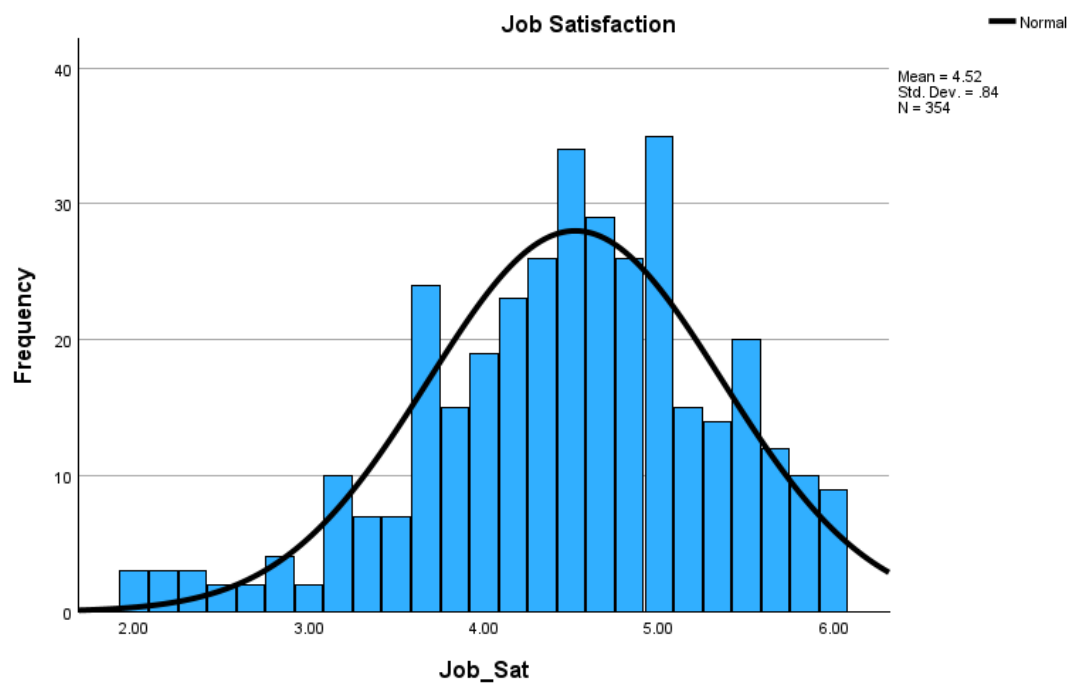
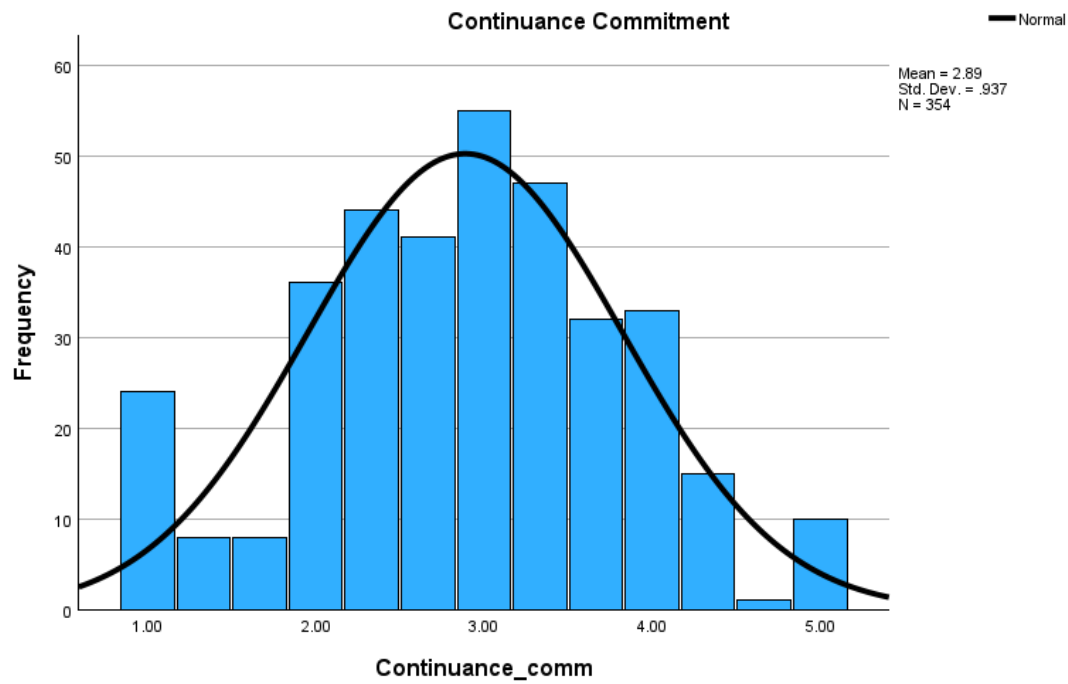
|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| subordinates.                                      |  |  |  |  |  |  |
| I like my supervisor.                              |  |  |  |  |  |  |
| I like the people I work with.                     |  |  |  |  |  |  |
| Communications seem good within this organization. |  |  |  |  |  |  |
| There is too much bickering and fighting at work.  |  |  |  |  |  |  |
| I like doing the things I do at work.              |  |  |  |  |  |  |
| I feel a sense of pride in doing my job.           |  |  |  |  |  |  |
| My job is enjoyable.                               |  |  |  |  |  |  |



## Annex 2. Histograms of the variables







Source: IBM SPSS output data

### Annex.3 Evaluation differences of variables according to gender

Evaluation differences of variables according to gender: means, standard deviation

| Group Statistics |        |     |        |                |                 |
|------------------|--------|-----|--------|----------------|-----------------|
|                  | Gender | N   | Mean   | Std. Deviation | Std. Error Mean |
| TL               | Male   | 165 | 4.1076 | .69204         | .05387          |
|                  | Female | 189 | 3.9175 | .78400         | .05703          |
| Work_Eng         | Male   | 165 | 5.6028 | 1.03132        | .08029          |
|                  | Female | 189 | 5.3218 | 1.05437        | .07669          |
| Job_Sat          | Male   | 165 | 4.6369 | .78465         | .06109          |
|                  | Female | 189 | 4.4220 | .87564         | .06369          |
| Affective_comm   | Male   | 165 | 3.4141 | 1.00483        | .07823          |
|                  | Female | 189 | 3.2610 | .98814         | .07188          |
| Continuance_comm | Male   | 165 | 2.9394 | .95230         | .07414          |
|                  | Female | 189 | 2.8448 | .92414         | .06722          |
| Normative_comm   | Male   | 165 | 3.5172 | .95168         | .07409          |
|                  | Female | 189 | 3.2928 | .97492         | .07092          |

Source: IBM SPSS output data

Evaluation differences of variables according to gender: T-test results

| Independent Samples Test                |                             |       |      |                              |         |              |             |                 |                       |   |        |
|---|-----------------------------|-------|------|------------------------------|---------|--------------|-------------|-----------------|-----------------------|---|--------|
| Levene's Test for Equality of Variances |                             |       |      | t-test for Equality of Means |         |              |             |                 |                       |   |        |
|   |                             | F     | Sig. | t                            | df      | Significance |             | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |        |
|   |                             |       |      |                              |         | One-Sided p  | Two-Sided p |                 |                       | Lower                                     | Upper  |
| TL                                      | Equal variances assumed     | .505  | .478 | 2.402                        | 352     | .008         | .017        | .19003          | .07912                | .03443                                    | .34563 |
|   | Equal variances not assumed |       |      | 2.422                        | 351.954 | .008         | .016        | .19003          | .07845                | .03573                                    | .34432 |
| Work_Eng                                | Equal variances assumed     | .091  | .764 | 2.527                        | 352     | .006         | .012        | .28097          | .11120                | .06227                                    | .49966 |
|   | Equal variances not assumed |       |      | 2.530                        | 347.468 | .006         | .012        | .28097          | .11103                | .06259                                    | .49935 |
| Job_Sat                                 | Equal variances assumed     | 1.831 | .177 | 2.417                        | 352     | .008         | .016        | .21491          | .08891                | .04005                                    | .38977 |
|   | Equal variances not assumed |       |      | 2.435                        | 351.754 | .008         | .015        | .21491          | .08825                | .04135                                    | .38848 |
| Affective_comm                          | Equal variances assumed     | .032  | .858 | 1.443                        | 352     | .075         | .150        | .15312          | .10611                | -.05558                                   | .36181 |
|   | Equal variances not assumed |       |      | 1.441                        | 343.950 | .075         | .150        | .15312          | .10623                | -.05583                                   | .36207 |
| Continuance_comm                        | Equal variances assumed     | .072  | .788 | .947                         | 352     | .172         | .344        | .09460          | .09987                | -.10182                                   | .29101 |
|   | Equal variances not assumed |       |      | .945                         | 342.541 | .173         | .345        | .09460          | .10007                | -.10224                                   | .29143 |
| Normative_comm                          | Equal variances assumed     | .025  | .874 | 2.184                        | 352     | .015         | .030        | .22440          | .10273                | .02237                                    | .42644 |
|   | Equal variances not assumed |       |      | 2.188                        | 347.625 | .015         | .029        | .22440          | .10256                | .02269                                    | .42611 |

Source: IBM SPSS output data

## Annex.4 Evaluation differences of variables according to age groups

### Evaluation differences of variables according to age groups: means, standard deviation

| Descriptives     |             |     |        |                |            |                                  |             |         |         |
|------------------|-------------|-----|--------|----------------|------------|----------------------------------|-------------|---------|---------|
|                  |             | N   | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|                  |             |     |        |                |            | Lower Bound                      | Upper Bound |         |         |
| TL               | <25 years   | 23  | 3.8841 | .67548         | .14085     | 3.5920                           | 4.1762      | 2.33    | 4.83    |
|                  | 25-35 years | 239 | 3.9732 | .77148         | .04990     | 3.8748                           | 4.0715      | 1.00    | 5.00    |
|                  | 36-45 years | 74  | 4.0653 | .70283         | .08170     | 3.9025                           | 4.2281      | 1.00    | 5.00    |
|                  | 46-55 years | 14  | 4.4524 | .40525         | .10831     | 4.2184                           | 4.6864      | 3.83    | 5.00    |
|                  | >55 years   | 4   | 4.0208 | 1.11674        | .55837     | 2.2439                           | 5.7978      | 2.42    | 5.00    |
|                  | Total       | 354 | 4.0061 | .74757         | .03973     | 3.9280                           | 4.0843      | 1.00    | 5.00    |
| Work_Eng         | <25 years   | 23  | 5.2174 | .95651         | .19945     | 4.8038                           | 5.6310      | 3.36    | 6.82    |
|                  | 25-35 years | 239 | 5.4260 | 1.06995        | .06921     | 5.2897                           | 5.5624      | 2.36    | 7.00    |
|                  | 36-45 years | 74  | 5.5332 | 1.04201        | .12113     | 5.2918                           | 5.7746      | 2.64    | 7.00    |
|                  | 46-55 years | 14  | 5.5909 | .95994         | .25656     | 5.0367                           | 6.1452      | 4.00    | 6.64    |
|                  | >55 years   | 4   | 6.4318 | .42234         | .21117     | 5.7598                           | 7.1039      | 6.00    | 7.00    |
|                  | Total       | 354 | 5.4527 | 1.05162        | .05589     | 5.3428                           | 5.5627      | 2.36    | 7.00    |
| Job_Sat          | <25 years   | 23  | 4.5145 | .71273         | .14861     | 4.2063                           | 4.8227      | 3.25    | 5.50    |
|                  | 25-35 years | 239 | 4.4630 | .89249         | .05773     | 4.3493                           | 4.5768      | 2.00    | 6.00    |
|                  | 36-45 years | 74  | 4.6104 | .72164         | .08389     | 4.4432                           | 4.7775      | 2.42    | 6.00    |
|                  | 46-55 years | 14  | 4.9524 | .42707         | .11414     | 4.7058                           | 5.1990      | 4.25    | 5.67    |
|                  | >55 years   | 4   | 4.9583 | 1.04638        | .52319     | 3.2933                           | 6.6234      | 3.67    | 6.00    |
|                  | Total       | 354 | 4.5221 | .84019         | .04466     | 4.4343                           | 4.6100      | 2.00    | 6.00    |
| Affective_comm   | <25 years   | 23  | 3.4058 | .77170         | .16091     | 3.0721                           | 3.7395      | 2.00    | 5.00    |
|                  | 25-35 years | 239 | 3.2399 | 1.03221        | .06677     | 3.1084                           | 3.3714      | 1.00    | 5.00    |
|                  | 36-45 years | 74  | 3.4369 | .88609         | .10301     | 3.2316                           | 3.6422      | 1.00    | 5.00    |
|                  | 46-55 years | 14  | 3.8333 | .95854         | .25618     | 3.2799                           | 4.3868      | 2.00    | 5.00    |
|                  | >55 years   | 4   | 4.7500 | .50000         | .25000     | 3.9544                           | 5.5456      | 4.00    | 5.00    |
|                  | Total       | 354 | 3.3324 | .99748         | .05302     | 3.2281                           | 3.4367      | 1.00    | 5.00    |
| Continuance_comm | <25 years   | 23  | 3.0145 | .72110         | .15036     | 2.7027                           | 3.3263      | 1.67    | 4.33    |
|                  | 25-35 years | 239 | 2.8354 | .96332         | .06231     | 2.7127                           | 2.9582      | 1.00    | 5.00    |
|                  | 36-45 years | 74  | 2.9234 | .88027         | .10233     | 2.7195                           | 3.1274      | 1.00    | 5.00    |
|                  | 46-55 years | 14  | 2.9762 | .84190         | .22501     | 2.4901                           | 3.4623      | 2.00    | 4.33    |
|                  | >55 years   | 4   | 4.4167 | .68718         | .34359     | 3.3232                           | 5.5101      | 3.67    | 5.00    |
|                  | Total       | 354 | 2.8889 | .93723         | .04981     | 2.7909                           | 2.9869      | 1.00    | 5.00    |
| Normative_comm   | <25 years   | 23  | 3.3043 | .79717         | .16622     | 2.9596                           | 3.6491      | 2.00    | 5.00    |
|                  | 25-35 years | 239 | 3.3445 | 1.01108        | .06540     | 3.2157                           | 3.4733      | 1.00    | 5.00    |
|                  | 36-45 years | 74  | 3.4730 | .85119         | .09895     | 3.2758                           | 3.6702      | 1.00    | 5.00    |
|                  | 46-55 years | 14  | 3.6905 | .95599         | .25550     | 3.1385                           | 4.2424      | 2.00    | 5.00    |
|                  | >55 years   | 4   | 4.6667 | .47140         | .23570     | 3.9166                           | 5.4168      | 4.00    | 5.00    |
|                  | Total       | 354 | 3.3974 | .96930         | .05152     | 3.2960                           | 3.4987      | 1.00    | 5.00    |

Source: IBM SPSS output data

Evaluation of differences of variables according to age groups: ANOVA test results

|                  |                | <b>ANOVA</b>   |     |             |       |      |
|------------------|----------------|----------------|-----|-------------|-------|------|
|                  |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| TL               | Between Groups | 3.651          | 4   | .913        | 1.645 | .162 |
|                  | Within Groups  | 193.628        | 349 | .555        |       |      |
|                  | Total          | 197.278        | 353 |             |       |      |
| Work_Eng         | Between Groups | 6.025          | 4   | 1.506       | 1.368 | .245 |
|                  | Within Groups  | 384.362        | 349 | 1.101       |       |      |
|                  | Total          | 390.387        | 353 |             |       |      |
| Job_Sat          | Between Groups | 4.765          | 4   | 1.191       | 1.701 | .149 |
|                  | Within Groups  | 244.423        | 349 | .700        |       |      |
|                  | Total          | 249.188        | 353 |             |       |      |
| Affective_comm   | Between Groups | 14.529         | 4   | 3.632       | 3.765 | .005 |
|                  | Within Groups  | 336.692        | 349 | .965        |       |      |
|                  | Total          | 351.222        | 353 |             |       |      |
| Continuance_comm | Between Groups | 10.577         | 4   | 2.644       | 3.081 | .016 |
|                  | Within Groups  | 299.497        | 349 | .858        |       |      |
|                  | Total          | 310.074        | 353 |             |       |      |
| Normative_comm   | Between Groups | 8.937          | 4   | 2.234       | 2.416 | .049 |
|                  | Within Groups  | 322.722        | 349 | .925        |       |      |
|                  | Total          | 331.660        | 353 |             |       |      |

Source: IBM SPSS output data

## Annex.5 Evaluation differences of variables according to education

### Evaluation differences of variables according to education: means, standard deviation

| Descriptives     |                   |     |        |                |            |                                  |        |         |         |
|------------------|-------------------|-----|--------|----------------|------------|----------------------------------|--------|---------|---------|
|                  |                   | N   | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |        | Minimum | Maximum |
| TL               | High School       | 15  | 3.9333 | .73274         | .18919     | 3.5276                           | 4.3391 | 2.42    | 4.83    |
|                  | Bachelor's Degree | 216 | 4.0000 | .67250         | .04576     | 3.9098                           | 4.0902 | 1.00    | 5.00    |
|                  | Master's Degree   | 98  | 4.0434 | .92023         | .09296     | 3.8589                           | 4.2279 | 1.00    | 5.00    |
|                  | Ph.D.             | 6   | 4.3611 | .76316         | .31156     | 3.5602                           | 5.1620 | 3.17    | 5.00    |
|                  | Other             | 19  | 3.8289 | .57230         | .13129     | 3.5531                           | 4.1048 | 3.00    | 5.00    |
|                  | Total             | 354 | 4.0061 | .74757         | .03973     | 3.9280                           | 4.0843 | 1.00    | 5.00    |
| Work_Eng         | High School       | 15  | 5.3576 | .77936         | .20123     | 4.9260                           | 5.7892 | 4.09    | 6.73    |
|                  | Bachelor's Degree | 216 | 5.5135 | 1.03476        | .07041     | 5.3747                           | 5.6522 | 2.36    | 7.00    |
|                  | Master's Degree   | 98  | 5.2820 | 1.06414        | .10749     | 5.0687                           | 5.4954 | 2.64    | 7.00    |
|                  | Ph.D.             | 6   | 6.2273 | .74468         | .30401     | 5.4458                           | 7.0088 | 5.00    | 7.00    |
|                  | Other             | 19  | 5.4737 | 1.32628        | .30427     | 4.8344                           | 6.1129 | 3.09    | 7.00    |
|                  | Total             | 354 | 5.4527 | 1.05162        | .05589     | 5.3428                           | 5.5627 | 2.36    | 7.00    |
| Job_Sat          | High School       | 15  | 4.4278 | .81520         | .21048     | 3.9763                           | 4.8792 | 2.25    | 5.50    |
|                  | Bachelor's Degree | 216 | 4.5235 | .82056         | .05583     | 4.4135                           | 4.6336 | 2.00    | 6.00    |
|                  | Master's Degree   | 98  | 4.4881 | .90206         | .09112     | 4.3072                           | 4.6689 | 2.00    | 6.00    |
|                  | Ph.D.             | 6   | 5.1806 | .62897         | .25678     | 4.5205                           | 5.8406 | 4.42    | 6.00    |
|                  | Other             | 19  | 4.5482 | .79413         | .18219     | 4.1655                           | 4.9310 | 3.17    | 6.00    |
|                  | Total             | 354 | 4.5221 | .84019         | .04466     | 4.4343                           | 4.6100 | 2.00    | 6.00    |
| Affective_comm   | High School       | 15  | 3.4000 | .82808         | .21381     | 2.9414                           | 3.8586 | 1.67    | 4.67    |
|                  | Bachelor's Degree | 216 | 3.3164 | .97791         | .06654     | 3.1852                           | 3.4475 | 1.00    | 5.00    |
|                  | Master's Degree   | 98  | 3.2857 | 1.04317        | .10538     | 3.0766                           | 3.4949 | 1.00    | 5.00    |
|                  | Ph.D.             | 6   | 4.3889 | .74287         | .30327     | 3.6093                           | 5.1685 | 3.33    | 5.00    |
|                  | Other             | 19  | 3.3684 | 1.07091        | .24568     | 2.8523                           | 3.8846 | 1.00    | 5.00    |
|                  | Total             | 354 | 3.3324 | .99748         | .05302     | 3.2281                           | 3.4367 | 1.00    | 5.00    |
| Continuance_comm | High School       | 15  | 2.9556 | .67691         | .17478     | 2.5807                           | 3.3304 | 2.00    | 4.33    |
|                  | Bachelor's Degree | 216 | 2.8904 | .94491         | .06429     | 2.7637                           | 3.0172 | 1.00    | 5.00    |
|                  | Master's Degree   | 98  | 2.8707 | .94479         | .09544     | 2.6813                           | 3.0602 | 1.00    | 5.00    |
|                  | Ph.D.             | 6   | 3.3889 | 1.32358        | .54035     | 1.9999                           | 4.7779 | 2.00    | 5.00    |
|                  | Other             | 19  | 2.7544 | .89472         | .20526     | 2.3231                           | 3.1856 | 1.00    | 4.67    |
|                  | Total             | 354 | 2.8889 | .93723         | .04981     | 2.7909                           | 2.9869 | 1.00    | 5.00    |
| Normative_comm   | High School       | 15  | 3.4444 | .85139         | .21983     | 2.9730                           | 3.9159 | 2.00    | 5.00    |
|                  | Bachelor's Degree | 216 | 3.3951 | .98427         | .06697     | 3.2631                           | 3.5271 | 1.00    | 5.00    |
|                  | Master's Degree   | 98  | 3.3299 | .94220         | .09518     | 3.1410                           | 3.5188 | 1.00    | 5.00    |
|                  | Ph.D.             | 6   | 4.4444 | .86066         | .35136     | 3.5412                           | 5.3477 | 3.33    | 5.00    |
|                  | Other             | 19  | 3.4035 | .95309         | .21865     | 2.9441                           | 3.8629 | 1.00    | 5.00    |
|                  | Total             | 354 | 3.3974 | .96930         | .05152     | 3.2960                           | 3.4987 | 1.00    | 5.00    |

Source: IBM SPSS output data

Evaluation differences of variables according to education: ANOVA test

|                  |                | <b>ANOVA</b>   |     |             |       |      |
|------------------|----------------|----------------|-----|-------------|-------|------|
|                  |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| TL               | Between Groups | 1.576          | 4   | .394        | .703  | .591 |
|                  | Within Groups  | 195.702        | 349 | .561        |       |      |
|                  | Total          | 197.278        | 353 |             |       |      |
| Work_Eng         | Between Groups | 7.397          | 4   | 1.849       | 1.685 | .153 |
|                  | Within Groups  | 382.990        | 349 | 1.097       |       |      |
|                  | Total          | 390.387        | 353 |             |       |      |
| Job_Sat          | Between Groups | 2.862          | 4   | .715        | 1.014 | .400 |
|                  | Within Groups  | 246.326        | 349 | .706        |       |      |
|                  | Total          | 249.188        | 353 |             |       |      |
| Affective_comm   | Between Groups | 7.059          | 4   | 1.765       | 1.790 | .130 |
|                  | Within Groups  | 344.163        | 349 | .986        |       |      |
|                  | Total          | 351.222        | 353 |             |       |      |
| Continuance_comm | Between Groups | 1.943          | 4   | .486        | .550  | .699 |
|                  | Within Groups  | 308.131        | 349 | .883        |       |      |
|                  | Total          | 310.074        | 353 |             |       |      |
| Normative_comm   | Between Groups | 7.059          | 4   | 1.765       | 1.897 | .110 |
|                  | Within Groups  | 324.601        | 349 | .930        |       |      |
|                  | Total          | 331.660        | 353 |             |       |      |

Source: IBM SPSS output data



## Annex.6 Evaluation differences of variables according to work experience

Evaluation differences of variables according to work experience: means, standard deviation

| Descriptives     |                    |     |        |                |            |                                  |             |         |         |
|------------------|--------------------|-----|--------|----------------|------------|----------------------------------|-------------|---------|---------|
|                  |                    | N   | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|                  |                    |     |        |                |            | Lower Bound                      | Upper Bound |         |         |
| TL               | Less than 1 year   | 19  | 3.8202 | .98416         | .22578     | 3.3458                           | 4.2945      | 1.00    | 5.00    |
|                  | 1-3 years          | 83  | 4.0793 | .61471         | .06747     | 3.9451                           | 4.2135      | 2.17    | 5.00    |
|                  | 4-6 years          | 108 | 3.9807 | .72134         | .06941     | 3.8431                           | 4.1183      | 1.08    | 5.00    |
|                  | 7-10 years         | 88  | 3.9252 | .81670         | .08706     | 3.7521                           | 4.0982      | 1.00    | 5.00    |
|                  | More than 10 years | 56  | 4.1369 | .76812         | .10264     | 3.9312                           | 4.3426      | 1.08    | 5.00    |
|                  | Total              | 354 | 4.0061 | .74757         | .03973     | 3.9280                           | 4.0843      | 1.00    | 5.00    |
| Work_Eng         | Less than 1 year   | 19  | 5.1483 | 1.18384        | .27159     | 4.5777                           | 5.7189      | 3.36    | 7.00    |
|                  | 1-3 years          | 83  | 5.5356 | 1.04466        | .11467     | 5.3075                           | 5.7637      | 2.91    | 7.00    |
|                  | 4-6 years          | 108 | 5.4125 | 1.07446        | .10339     | 5.2075                           | 5.6174      | 2.36    | 7.00    |
|                  | 7-10 years         | 88  | 5.3027 | 1.01060        | .10773     | 5.0886                           | 5.5168      | 2.64    | 7.00    |
|                  | More than 10 years | 56  | 5.7468 | .99052         | .13236     | 5.4815                           | 6.0120      | 3.55    | 7.00    |
|                  | Total              | 354 | 5.4527 | 1.05162        | .05589     | 5.3428                           | 5.5627      | 2.36    | 7.00    |
| Job_Sat          | Less than 1 year   | 19  | 4.2851 | .96438         | .22124     | 3.8203                           | 4.7499      | 2.25    | 5.75    |
|                  | 1-3 years          | 83  | 4.6847 | .77248         | .08479     | 4.5161                           | 4.8534      | 2.42    | 6.00    |
|                  | 4-6 years          | 108 | 4.4267 | .87969         | .08465     | 4.2589                           | 4.5945      | 2.00    | 6.00    |
|                  | 7-10 years         | 88  | 4.3939 | .90494         | .09647     | 4.2022                           | 4.5857      | 2.00    | 6.00    |
|                  | More than 10 years | 56  | 4.7470 | .61709         | .08246     | 4.5818                           | 4.9123      | 3.58    | 6.00    |
|                  | Total              | 354 | 4.5221 | .84019         | .04466     | 4.4343                           | 4.6100      | 2.00    | 6.00    |
| Affective_comm   | Less than 1 year   | 19  | 3.2456 | 1.04729        | .24026     | 2.7408                           | 3.7504      | 1.00    | 5.00    |
|                  | 1-3 years          | 83  | 3.3333 | 1.01078        | .11095     | 3.1126                           | 3.5540      | 1.00    | 5.00    |
|                  | 4-6 years          | 108 | 3.2346 | .91060         | .08762     | 3.0609                           | 3.4083      | 1.00    | 5.00    |
|                  | 7-10 years         | 88  | 3.2614 | 1.06668        | .11371     | 3.0354                           | 3.4874      | 1.00    | 5.00    |
|                  | More than 10 years | 56  | 3.6607 | .97544         | .13035     | 3.3995                           | 3.9219      | 1.67    | 5.00    |
|                  | Total              | 354 | 3.3324 | .99748         | .05302     | 3.2281                           | 3.4367      | 1.00    | 5.00    |
| Continuance_comm | Less than 1 year   | 19  | 2.8947 | .85384         | .19588     | 2.4832                           | 3.3063      | 1.00    | 4.00    |
|                  | 1-3 years          | 83  | 2.8795 | 1.08022        | .11857     | 2.6436                           | 3.1154      | 1.00    | 5.00    |
|                  | 4-6 years          | 108 | 2.9198 | .84754         | .08155     | 2.7581                           | 3.0814      | 1.00    | 5.00    |
|                  | 7-10 years         | 88  | 2.7803 | .94401         | .10063     | 2.5803                           | 2.9803      | 1.00    | 5.00    |
|                  | More than 10 years | 56  | 3.0119 | .90334         | .12071     | 2.7700                           | 3.2538      | 1.00    | 5.00    |
|                  | Total              | 354 | 2.8889 | .93723         | .04981     | 2.7909                           | 2.9869      | 1.00    | 5.00    |
| Normative_comm   | Less than 1 year   | 19  | 3.2281 | .96898         | .22230     | 2.7610                           | 3.6951      | 1.00    | 5.00    |
|                  | 1-3 years          | 83  | 3.5060 | .95333         | .10464     | 3.2979                           | 3.7142      | 1.00    | 5.00    |
|                  | 4-6 years          | 108 | 3.3241 | .92216         | .08873     | 3.1482                           | 3.5000      | 1.00    | 5.00    |
|                  | 7-10 years         | 88  | 3.2197 | 1.05274        | .11222     | 2.9966                           | 3.4428      | 1.00    | 5.00    |
|                  | More than 10 years | 56  | 3.7143 | .87716         | .11722     | 3.4794                           | 3.9492      | 2.00    | 5.00    |
|                  | Total              | 354 | 3.3974 | .96930         | .05152     | 3.2960                           | 3.4987      | 1.00    | 5.00    |

Source: IBM SPSS output data

Evaluation differences of variables according to work experience: ANOVA test

|                  |                | <b>ANOVA</b>   |     |             |       |      |
|------------------|----------------|----------------|-----|-------------|-------|------|
|                  |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| TL               | Between Groups | 2.706          | 4   | .676        | 1.213 | .305 |
|                  | Within Groups  | 194.573        | 349 | .558        |       |      |
|                  | Total          | 197.278        | 353 |             |       |      |
| Work_Eng         | Between Groups | 9.328          | 4   | 2.332       | 2.136 | .076 |
|                  | Within Groups  | 381.059        | 349 | 1.092       |       |      |
|                  | Total          | 390.387        | 353 |             |       |      |
| Job_Sat          | Between Groups | 8.524          | 4   | 2.131       | 3.090 | .016 |
|                  | Within Groups  | 240.664        | 349 | .690        |       |      |
|                  | Total          | 249.188        | 353 |             |       |      |
| Affective_comm   | Between Groups | 7.657          | 4   | 1.914       | 1.945 | .103 |
|                  | Within Groups  | 343.565        | 349 | .984        |       |      |
|                  | Total          | 351.222        | 353 |             |       |      |
| Continuance_comm | Between Groups | 1.996          | 4   | .499        | .565  | .688 |
|                  | Within Groups  | 308.078        | 349 | .883        |       |      |
|                  | Total          | 310.074        | 353 |             |       |      |
| Normative_comm   | Between Groups | 10.507         | 4   | 2.627       | 2.855 | .024 |
|                  | Within Groups  | 321.153        | 349 | .920        |       |      |
|                  | Total          | 331.660        | 353 |             |       |      |

Source: IBM SPSS output data

## Annex.7 Evaluation of differences in variables according to the supervision of employees

Evaluation differences of variables according to the supervision of employees: means, standard deviation

| Group Statistics |   |     |        |                |                 |
|------------------|---|-----|--------|----------------|-----------------|
|                  | Do you have employees under your supervision? | N   | Mean   | Std. Deviation | Std. Error Mean |
| TL               | Yes   | 181 | 3.9751 | .68785         | .05113          |
|                  | No  | 173 | 4.0385 | .80607         | .06128          |
| Work_Eng         | Yes   | 181 | 5.5826 | .97243         | .07228          |
|                  | No  | 173 | 5.3169 | 1.11524        | .08479          |
| Job_Sat          | Yes   | 181 | 4.5645 | .80512         | .05984          |
|                  | No  | 173 | 4.4778 | .87553         | .06656          |
| Affective_comm   | Yes   | 181 | 3.5028 | .97095         | .07217          |
|                  | No  | 173 | 3.1541 | .99644         | .07576          |
| Continuance_comm | Yes   | 181 | 3.0092 | .91451         | .06798          |
|                  | No  | 173 | 2.7630 | .94676         | .07198          |
| Normative_comm   | Yes   | 181 | 3.5451 | .93951         | .06983          |
|                  | No  | 173 | 3.2428 | .97853         | .07440          |

Source: IBM SPSS output data

## Evaluation differences of variables according to supervision of employees: T-test results

| Independent Samples Test |                             |   |      |                              |         |                          |                          |                 |                       |   |        |
|--------------------------|-----------------------------|---|------|------------------------------|---------|--------------------------|--------------------------|-----------------|-----------------------|---|--------|
|                          |                             | Levene's Test for Equality of Variances |      | t-test for Equality of Means |         |                          |                          |                 |                       |   |        |
|                          |                             | F                                       | Sig. | t                            | df      | Significance One-Sided p | Significance Two-Sided p | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |        |
|                          |                             |   |      |                              |         |                          |                          |                 |                       | Lower                                     | Upper  |
| TL                       | Equal variances assumed     | 3.254                                   | .072 | -.797                        | 352     | .213                     | .426                     | -.06340         | .07953                | -.21981                                   | .09301 |
|                          | Equal variances not assumed |   |      | -.794                        | 338.198 | .214                     | .428                     | -.06340         | .07981                | -.22039                                   | .09359 |
| Work_Eng                 | Equal variances assumed     | 2.318                                   | .129 | 2.393                        | 352     | .009                     | .017                     | .26575          | .11107                | .04730                                    | .48421 |
|                          | Equal variances not assumed |   |      | 2.385                        | 340.827 | .009                     | .018                     | .26575          | .11142                | .04660                                    | .48491 |
| Job_Sat                  | Equal variances assumed     | 1.900                                   | .169 | .969                         | 352     | .166                     | .333                     | .08661          | .08934                | -.08910                                   | .26232 |
|                          | Equal variances not assumed |   |      | .968                         | 346.256 | .167                     | .334                     | .08661          | .08951                | -.08944                                   | .26267 |
| Affective_comm           | Equal variances assumed     | .088                                    | .766 | 3.334                        | 352     | <.001                    | <.001                    | .34862          | .10457                | .14296                                    | .55428 |
|                          | Equal variances not assumed |   |      | 3.332                        | 350.223 | <.001                    | <.001                    | .34862          | .10463                | .14283                                    | .55441 |
| Continuance_comm         | Equal variances assumed     | .327                                    | .568 | 2.489                        | 352     | .007                     | .013                     | .24620          | .09893                | .05164                                    | .44076 |
|                          | Equal variances not assumed |   |      | 2.487                        | 349.765 | .007                     | .013                     | .24620          | .09900                | .05148                                    | .44092 |
| Normative_comm           | Equal variances assumed     | .051                                    | .821 | 2.966                        | 352     | .002                     | .003                     | .30235          | .10194                | .10185                                    | .50284 |
|                          | Equal variances not assumed |   |      | 2.963                        | 349.418 | .002                     | .003                     | .30235          | .10204                | .10166                                    | .50303 |

Source: IBM SPSS output data

## Annex.8 Evaluation differences of variables according to work years in their current organization

Evaluation differences of variables according to work years in their current organization:  
means, standard deviation

| Descriptives     |                    |     |        |                |            |                                  |             |         |         |
|------------------|--------------------|-----|--------|----------------|------------|----------------------------------|-------------|---------|---------|
|                  |                    | N   | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|                  |                    |     |        |                |            | Lower Bound                      | Upper Bound |         |         |
| TL               | Less than 1 year   | 87  | 3.9847 | .82109         | .08803     | 3.8097                           | 4.1597      | 1.00    | 5.00    |
|                  | 1-3 years          | 157 | 4.0037 | .75670         | .06039     | 3.8844                           | 4.1230      | 1.00    | 5.00    |
|                  | 4-6 years          | 64  | 4.0443 | .61345         | .07668     | 3.8910                           | 4.1975      | 2.83    | 5.00    |
|                  | 7-10 years         | 36  | 3.9259 | .76682         | .12780     | 3.6665                           | 4.1854      | 1.08    | 4.75    |
|                  | More than 20 years | 10  | 4.2750 | .71476         | .22603     | 3.7637                           | 4.7863      | 2.42    | 5.00    |
|                  | Total              | 354 | 4.0061 | .74757         | .03973     | 3.9280                           | 4.0843      | 1.00    | 5.00    |
| Work_Eng         | Less than 1 year   | 87  | 5.2874 | 1.06676        | .11437     | 5.0600                           | 5.5147      | 2.36    | 7.00    |
|                  | 1-3 years          | 157 | 5.4783 | 1.09842        | .08766     | 5.3051                           | 5.6514      | 2.64    | 7.00    |
|                  | 4-6 years          | 64  | 5.5568 | .93323         | .11665     | 5.3237                           | 5.7899      | 3.09    | 7.00    |
|                  | 7-10 years         | 36  | 5.3965 | 1.01049        | .16841     | 5.0546                           | 5.7384      | 3.09    | 7.00    |
|                  | More than 20 years | 10  | 6.0273 | .88871         | .28104     | 5.3915                           | 6.6630      | 4.36    | 7.00    |
|                  | Total              | 354 | 5.4527 | 1.05162        | .05589     | 5.3428                           | 5.5627      | 2.36    | 7.00    |
| Job_Sat          | Less than 1 year   | 87  | 4.5057 | .92069         | .09871     | 4.3095                           | 4.7020      | 2.17    | 5.92    |
|                  | 1-3 years          | 157 | 4.4761 | .83275         | .06646     | 4.3448                           | 4.6074      | 2.00    | 6.00    |
|                  | 4-6 years          | 64  | 4.6081 | .79899         | .09987     | 4.4085                           | 4.8077      | 2.58    | 6.00    |
|                  | 7-10 years         | 36  | 4.5116 | .78000         | .13000     | 4.2477                           | 4.7755      | 2.00    | 6.00    |
|                  | More than 20 years | 10  | 4.8750 | .70847         | .22404     | 4.3682                           | 5.3818      | 3.67    | 6.00    |
|                  | Total              | 354 | 4.5221 | .84019         | .04466     | 4.4343                           | 4.6100      | 2.00    | 6.00    |
| Affective_comm   | Less than 1 year   | 87  | 3.2605 | 1.01338        | .10865     | 3.0446                           | 3.4765      | 1.00    | 5.00    |
|                  | 1-3 years          | 157 | 3.2378 | 1.04326        | .08326     | 3.0733                           | 3.4023      | 1.00    | 5.00    |
|                  | 4-6 years          | 64  | 3.3906 | .79139         | .09892     | 3.1929                           | 3.5883      | 1.67    | 5.00    |
|                  | 7-10 years         | 36  | 3.5370 | .99611         | .16602     | 3.2000                           | 3.8741      | 1.00    | 5.00    |
|                  | More than 20 years | 10  | 4.3333 | .76980         | .24343     | 3.7827                           | 4.8840      | 2.67    | 5.00    |
|                  | Total              | 354 | 3.3324 | .99748         | .05302     | 3.2281                           | 3.4367      | 1.00    | 5.00    |
| Continuance_comm | Less than 1 year   | 87  | 2.7778 | .90885         | .09744     | 2.5841                           | 2.9715      | 1.00    | 5.00    |
|                  | 1-3 years          | 157 | 2.9236 | .98917         | .07894     | 2.7676                           | 3.0795      | 1.00    | 5.00    |
|                  | 4-6 years          | 64  | 2.8021 | .89229         | .11154     | 2.5792                           | 3.0250      | 1.00    | 5.00    |
|                  | 7-10 years         | 36  | 3.0000 | .83571         | .13929     | 2.7172                           | 3.2828      | 1.00    | 5.00    |
|                  | More than 20 years | 10  | 3.4667 | .83444         | .26387     | 2.8697                           | 4.0636      | 2.33    | 5.00    |
|                  | Total              | 354 | 2.8889 | .93723         | .04981     | 2.7909                           | 2.9869      | 1.00    | 5.00    |
| Normative_comm   | Less than 1 year   | 87  | 3.2184 | 1.02404        | .10979     | 3.0001                           | 3.4366      | 1.00    | 5.00    |
|                  | 1-3 years          | 157 | 3.3609 | .95926         | .07656     | 3.2097                           | 3.5122      | 1.00    | 5.00    |
|                  | 4-6 years          | 64  | 3.5052 | .85241         | .10655     | 3.2923                           | 3.7181      | 2.00    | 5.00    |
|                  | 7-10 years         | 36  | 3.5000 | .98400         | .16400     | 3.1671                           | 3.8329      | 1.00    | 5.00    |
|                  | More than 20 years | 10  | 4.4667 | .54885         | .17356     | 4.0740                           | 4.8593      | 3.67    | 5.00    |
|                  | Total              | 354 | 3.3974 | .96930         | .05152     | 3.2960                           | 3.4987      | 1.00    | 5.00    |

Source: IBM SPSS output data

Evaluation differences of variables according to work years in their current organization:  
ANOVA test

| ANOVA            |                |                |     |             |       |      |
|------------------|----------------|----------------|-----|-------------|-------|------|
|                  |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| TL               | Between Groups | 1.089          | 4   | .272        | .484  | .747 |
|                  | Within Groups  | 196.190        | 349 | .562        |       |      |
|                  | Total          | 197.278        | 353 |             |       |      |
| Work_Eng         | Between Groups | 6.590          | 4   | 1.648       | 1.498 | .202 |
|                  | Within Groups  | 383.797        | 349 | 1.100       |       |      |
|                  | Total          | 390.387        | 353 |             |       |      |
| Job_Sat          | Between Groups | 2.078          | 4   | .519        | .734  | .570 |
|                  | Within Groups  | 247.110        | 349 | .708        |       |      |
|                  | Total          | 249.188        | 353 |             |       |      |
| Affective_comm   | Between Groups | 13.598         | 4   | 3.399       | 3.514 | .008 |
|                  | Within Groups  | 337.624        | 349 | .967        |       |      |
|                  | Total          | 351.222        | 353 |             |       |      |
| Continuance_comm | Between Groups | 5.528          | 4   | 1.382       | 1.584 | .178 |
|                  | Within Groups  | 304.546        | 349 | .873        |       |      |
|                  | Total          | 310.074        | 353 |             |       |      |
| Normative_comm   | Between Groups | 15.553         | 4   | 3.888       | 4.293 | .002 |
|                  | Within Groups  | 316.107        | 349 | .906        |       |      |
|                  | Total          | 331.660        | 353 |             |       |      |

Source: IBM SPSS output data

## Annex.9 Evaluation differences of variables according to organizational sector

Evaluation differences of variables according to organizational sector: means, standard deviation

|                  |                       | Descriptives |        |                |            |                                  |        |         |         |
|------------------|-----------------------|--------------|--------|----------------|------------|----------------------------------|--------|---------|---------|
|                  |                       | N            | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |        | Minimum | Maximum |
| TL               | Public Administration | 21           | 3.9206 | .68591         | .14968     | 3.6084                           | 4.2329 | 2.17    | 5.00    |
|                  | Financial Services    | 86           | 3.9922 | .88114         | .09502     | 3.8033                           | 4.1812 | 1.00    | 5.00    |
|                  | IT Services           | 37           | 4.2185 | .56017         | .09209     | 4.0317                           | 4.4052 | 3.00    | 5.00    |
|                  | Education             | 28           | 3.9464 | .94804         | .17916     | 3.5788                           | 4.3140 | 1.00    | 5.00    |
|                  | Health Services       | 33           | 4.0455 | .63605         | .11072     | 3.8199                           | 4.2710 | 2.17    | 5.00    |
|                  | Manufacturing         | 22           | 4.0644 | .54853         | .11695     | 3.8212                           | 4.3076 | 3.00    | 5.00    |
|                  | Trade                 | 38           | 4.0439 | .60365         | .09792     | 3.8454                           | 4.2423 | 2.33    | 5.00    |
|                  | Other                 | 89           | 3.9251 | .76025         | .08059     | 3.7649                           | 4.0852 | 1.08    | 5.00    |
|                  | Total                 | 354          | 4.0061 | .74757         | .03973     | 3.9280                           | 4.0843 | 1.00    | 5.00    |
| Work_Eng         | Public Administration | 21           | 5.2771 | .99398         | .21690     | 4.8246                           | 5.7295 | 3.27    | 7.00    |
|                  | Financial Services    | 86           | 5.4450 | 1.13990        | .12292     | 5.2006                           | 5.6894 | 2.36    | 7.00    |
|                  | IT Services           | 37           | 5.5307 | 1.02259        | .16811     | 5.1898                           | 5.8717 | 3.36    | 7.00    |
|                  | Education             | 28           | 5.2208 | 1.30700        | .24700     | 4.7140                           | 5.7276 | 2.91    | 7.00    |
|                  | Health Services       | 33           | 5.5427 | .89520         | .15583     | 5.2253                           | 5.8601 | 2.64    | 6.73    |
|                  | Manufacturing         | 22           | 5.1653 | 1.17719        | .25098     | 4.6434                           | 5.6872 | 3.36    | 6.91    |
|                  | Trade                 | 38           | 5.7344 | .81951         | .13294     | 5.4651                           | 6.0038 | 3.64    | 7.00    |
|                  | Other                 | 89           | 5.4597 | 1.00752        | .10680     | 5.2474                           | 5.6719 | 2.73    | 7.00    |
|                  | Total                 | 354          | 5.4527 | 1.05162        | .05589     | 5.3428                           | 5.5627 | 2.36    | 7.00    |
| Job_Sat          | Public Administration | 21           | 4.3651 | .99285         | .21666     | 3.9131                           | 4.8170 | 2.58    | 6.00    |
|                  | Financial Services    | 86           | 4.6298 | .87490         | .09434     | 4.4423                           | 4.8174 | 2.00    | 6.00    |
|                  | IT Services           | 37           | 4.6577 | .73172         | .12029     | 4.4137                           | 4.9016 | 2.50    | 6.00    |
|                  | Education             | 28           | 4.2292 | .82266         | .15547     | 3.9102                           | 4.5482 | 2.42    | 5.83    |
|                  | Health Services       | 33           | 4.6237 | .91693         | .15962     | 4.2986                           | 4.9489 | 2.00    | 5.83    |
|                  | Manufacturing         | 22           | 4.3864 | .91307         | .19467     | 3.9815                           | 4.7912 | 2.25    | 6.00    |
|                  | Trade                 | 38           | 4.5110 | .72446         | .11752     | 4.2728                           | 4.7491 | 2.92    | 6.00    |
|                  | Other                 | 89           | 4.4916 | .80902         | .08576     | 4.3212                           | 4.6620 | 2.17    | 6.00    |
|                  | Total                 | 354          | 4.5221 | .84019         | .04466     | 4.4343                           | 4.6100 | 2.00    | 6.00    |
| Affective_comm   | Public Administration | 21           | 3.3968 | 1.05735        | .23073     | 2.9155                           | 3.8781 | 1.67    | 5.00    |
|                  | Financial Services    | 86           | 3.3372 | .96270         | .10381     | 3.1308                           | 3.5436 | 1.00    | 5.00    |
|                  | IT Services           | 37           | 3.3604 | 1.02854        | .16909     | 3.0174                           | 3.7033 | 1.00    | 5.00    |
|                  | Education             | 28           | 3.2857 | 1.16433        | .22004     | 2.8342                           | 3.7372 | 1.00    | 5.00    |
|                  | Health Services       | 33           | 3.4747 | 1.00702        | .17530     | 3.1177                           | 3.8318 | 1.00    | 5.00    |
|                  | Manufacturing         | 22           | 3.3182 | 1.09582        | .23363     | 2.8323                           | 3.8040 | 1.00    | 5.00    |
|                  | Trade                 | 38           | 3.5614 | .90744         | .14721     | 3.2631                           | 3.8597 | 1.67    | 5.00    |
|                  | Other                 | 89           | 3.1685 | .96547         | .10234     | 2.9652                           | 3.3719 | 1.00    | 5.00    |
|                  | Total                 | 354          | 3.3324 | .99748         | .05302     | 3.2281                           | 3.4367 | 1.00    | 5.00    |
| Continuance_comm | Public Administration | 21           | 3.4921 | .67181         | .14660     | 3.1863                           | 3.7979 | 2.33    | 5.00    |
|                  | Financial Services    | 86           | 2.6550 | .92524         | .09977     | 2.4567                           | 2.8534 | 1.00    | 4.33    |
|                  | IT Services           | 37           | 2.9910 | .88012         | .14469     | 2.6975                           | 3.2844 | 1.00    | 5.00    |
|                  | Education             | 28           | 2.9643 | 1.13071        | .21368     | 2.5258                           | 3.4027 | 1.00    | 5.00    |
|                  | Health Services       | 33           | 3.2020 | .77253         | .13448     | 2.9281                           | 3.4759 | 1.00    | 4.33    |
|                  | Manufacturing         | 22           | 3.0152 | .98388         | .20976     | 2.5789                           | 3.4514 | 1.67    | 5.00    |
|                  | Trade                 | 38           | 3.0702 | .96222         | .15609     | 2.7539                           | 3.3865 | 1.00    | 5.00    |
|                  | Other                 | 89           | 2.6816 | .89599         | .09498     | 2.4929                           | 2.8704 | 1.00    | 5.00    |
|                  | Total                 | 354          | 2.8889 | .93723         | .04981     | 2.7909                           | 2.9869 | 1.00    | 5.00    |
| Normative_comm   | Public Administration | 21           | 3.6825 | .86587         | .18895     | 3.2884                           | 4.0767 | 2.00    | 5.00    |
|                  | Financial Services    | 86           | 3.2326 | .95393         | .10287     | 3.0280                           | 3.4371 | 1.00    | 5.00    |
|                  | IT Services           | 37           | 3.5135 | .82997         | .13645     | 3.2368                           | 3.7902 | 1.33    | 5.00    |
|                  | Education             | 28           | 3.4286 | 1.15775        | .21879     | 2.9796                           | 3.8775 | 1.00    | 5.00    |
|                  | Health Services       | 33           | 3.6061 | .98056         | .17069     | 3.2584                           | 3.9538 | 1.67    | 5.00    |
|                  | Manufacturing         | 22           | 3.1212 | .99494         | .21212     | 2.6801                           | 3.5623 | 1.00    | 5.00    |
|                  | Trade                 | 38           | 3.5965 | .93692         | .15199     | 3.2885                           | 3.9045 | 1.33    | 5.00    |
|                  | Other                 | 89           | 3.3371 | .98151         | .10404     | 3.1303                           | 3.5438 | 1.00    | 5.00    |
|                  | Total                 | 354          | 3.3974 | .96930         | .05152     | 3.2960                           | 3.4987 | 1.00    | 5.00    |

Source: IBM SPSS output data

Evaluation differences of variables according to organizational sector: ANOVA test

| ANOVA            |                |                |     |             |       |       |
|------------------|----------------|----------------|-----|-------------|-------|-------|
|                  |                | Sum of Squares | df  | Mean Square | F     | Sig.  |
| TL               | Between Groups | 2.702          | 7   | .386        | .686  | .684  |
|                  | Within Groups  | 194.576        | 346 | .562        |       |       |
|                  | Total          | 197.278        | 353 |             |       |       |
| Work_Eng         | Between Groups | 7.490          | 7   | 1.070       | .967  | .455  |
|                  | Within Groups  | 382.898        | 346 | 1.107       |       |       |
|                  | Total          | 390.387        | 353 |             |       |       |
| Job_Sat          | Between Groups | 5.433          | 7   | .776        | 1.102 | .362  |
|                  | Within Groups  | 243.755        | 346 | .704        |       |       |
|                  | Total          | 249.188        | 353 |             |       |       |
| Affective_comm   | Between Groups | 5.235          | 7   | .748        | .748  | .632  |
|                  | Within Groups  | 345.987        | 346 | 1.000       |       |       |
|                  | Total          | 351.222        | 353 |             |       |       |
| Continuance_comm | Between Groups | 21.546         | 7   | 3.078       | 3.691 | <.001 |
|                  | Within Groups  | 288.528        | 346 | .834        |       |       |
|                  | Total          | 310.074        | 353 |             |       |       |
| Normative_comm   | Between Groups | 9.515          | 7   | 1.359       | 1.460 | .181  |
|                  | Within Groups  | 322.144        | 346 | .931        |       |       |
|                  | Total          | 331.660        | 353 |             |       |       |

Source: IBM SPSS output data

## Annex.10 Evaluation differences of variables according to the size of the company

Evaluation differences of variables according to the size of the company: means, standard

| Descriptives     |               |     |        |                |            |                                  |             |         |         |
|------------------|---------------|-----|--------|----------------|------------|----------------------------------|-------------|---------|---------|
|                  |               | N   | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|                  |               |     |        |                |            | Lower Bound                      | Upper Bound |         |         |
| TL               | 1-9           | 65  | 4.0487 | .60969         | .07562     | 3.8976                           | 4.1998      | 2.42    | 5.00    |
|                  | 10-49         | 89  | 3.9260 | .74190         | .07864     | 3.7697                           | 4.0823      | 1.00    | 5.00    |
|                  | 50-199        | 61  | 3.9508 | .74588         | .09550     | 3.7598                           | 4.1418      | 1.00    | 5.00    |
|                  | 200 and above | 139 | 4.0618 | .80921         | .06864     | 3.9260                           | 4.1975      | 1.08    | 5.00    |
|                  | Total         | 354 | 4.0061 | .74757         | .03973     | 3.9280                           | 4.0843      | 1.00    | 5.00    |
| Work_Eng         | 1-9           | 65  | 5.7329 | .92373         | .11457     | 5.5040                           | 5.9618      | 3.18    | 7.00    |
|                  | 10-49         | 89  | 5.2155 | 1.13557        | .12037     | 4.9763                           | 5.4547      | 2.36    | 7.00    |
|                  | 50-199        | 61  | 5.4590 | 1.08970        | .13952     | 5.1799                           | 5.7381      | 2.64    | 7.00    |
|                  | 200 and above | 139 | 5.4709 | 1.01044        | .08570     | 5.3014                           | 5.6404      | 3.00    | 7.00    |
|                  | Total         | 354 | 5.4527 | 1.05162        | .05589     | 5.3428                           | 5.5627      | 2.36    | 7.00    |
| Job_Sat          | 1-9           | 65  | 4.6859 | .77655         | .09632     | 4.4935                           | 4.8783      | 2.25    | 6.00    |
|                  | 10-49         | 89  | 4.3418 | .83834         | .08886     | 4.1652                           | 4.5184      | 2.00    | 5.92    |
|                  | 50-199        | 61  | 4.4180 | .78580         | .10061     | 4.2168                           | 4.6193      | 2.58    | 6.00    |
|                  | 200 and above | 139 | 4.6067 | .87395         | .07413     | 4.4601                           | 4.7533      | 2.00    | 6.00    |
|                  | Total         | 354 | 4.5221 | .84019         | .04466     | 4.4343                           | 4.6100      | 2.00    | 6.00    |
| Affective_comm   | 1-9           | 65  | 3.6513 | .98501         | .12218     | 3.4072                           | 3.8954      | 1.00    | 5.00    |
|                  | 10-49         | 89  | 3.1685 | 1.05663        | .11200     | 2.9460                           | 3.3911      | 1.00    | 5.00    |
|                  | 50-199        | 61  | 3.3279 | .94573         | .12109     | 3.0857                           | 3.5701      | 1.00    | 5.00    |
|                  | 200 and above | 139 | 3.2902 | .96295         | .08168     | 3.1287                           | 3.4517      | 1.00    | 5.00    |
|                  | Total         | 354 | 3.3324 | .99748         | .05302     | 3.2281                           | 3.4367      | 1.00    | 5.00    |
| Continuance_comm | 1-9           | 65  | 3.1128 | .90192         | .11187     | 2.8893                           | 3.3363      | 1.00    | 5.00    |
|                  | 10-49         | 89  | 2.7940 | .94081         | .09973     | 2.5958                           | 2.9922      | 1.00    | 5.00    |
|                  | 50-199        | 61  | 2.9344 | .86027         | .11015     | 2.7141                           | 3.1548      | 1.00    | 5.00    |
|                  | 200 and above | 139 | 2.8249 | .97417         | .08263     | 2.6616                           | 2.9883      | 1.00    | 5.00    |
|                  | Total         | 354 | 2.8889 | .93723         | .04981     | 2.7909                           | 2.9869      | 1.00    | 5.00    |
| Normative_comm   | 1-9           | 65  | 3.7949 | .96230         | .11936     | 3.5564                           | 4.0333      | 1.00    | 5.00    |
|                  | 10-49         | 89  | 3.2135 | 1.06630        | .11303     | 2.9889                           | 3.4381      | 1.00    | 5.00    |
|                  | 50-199        | 61  | 3.3825 | .91254         | .11684     | 3.1488                           | 3.6162      | 1.00    | 5.00    |
|                  | 200 and above | 139 | 3.3357 | .88692         | .07523     | 3.1870                           | 3.4845      | 1.00    | 5.00    |
|                  | Total         | 354 | 3.3974 | .96930         | .05152     | 3.2960                           | 3.4987      | 1.00    | 5.00    |

Source: IBM SPSS output data



Evaluation differences of variables according to the size of the company: ANOVA test

| ANOVA            |                |                |     |             |       |      |
|------------------|----------------|----------------|-----|-------------|-------|------|
|                  |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| TL               | Between Groups | 1.306          | 3   | .435        | .777  | .507 |
|                  | Within Groups  | 195.973        | 350 | .560        |       |      |
|                  | Total          | 197.278        | 353 |             |       |      |
| Work_Eng         | Between Groups | 10.157         | 3   | 3.386       | 3.116 | .026 |
|                  | Within Groups  | 380.230        | 350 | 1.086       |       |      |
|                  | Total          | 390.387        | 353 |             |       |      |
| Job_Sat          | Between Groups | 6.294          | 3   | 2.098       | 3.023 | .030 |
|                  | Within Groups  | 242.894        | 350 | .694        |       |      |
|                  | Total          | 249.188        | 353 |             |       |      |
| Affective_comm   | Between Groups | 9.248          | 3   | 3.083       | 3.155 | .025 |
|                  | Within Groups  | 341.973        | 350 | .977        |       |      |
|                  | Total          | 351.222        | 353 |             |       |      |
| Continuance_comm | Between Groups | 4.756          | 3   | 1.585       | 1.817 | .144 |
|                  | Within Groups  | 305.318        | 350 | .872        |       |      |
|                  | Total          | 310.074        | 353 |             |       |      |
| Normative_comm   | Between Groups | 13.822         | 3   | 4.607       | 5.073 | .002 |
|                  | Within Groups  | 317.838        | 350 | .908        |       |      |
|                  | Total          | 331.660        | 353 |             |       |      |

Source: IBM SPSS output data

## Annex.11 Evaluation differences of variables according to the sector of the company

Evaluation differences of variables according to the sector of the company: means, standard deviation

| Group Statistics |  |     |        |                |                 |
|------------------|--|-----|--------|----------------|-----------------|
|                  | In what sector does your organization operate? | N   | Mean   | Std. Deviation | Std. Error Mean |
| TL               | Private Sector                                 | 291 | 4.0324 | .76625         | .04492          |
|                  | Public Sector                                  | 63  | 3.8849 | .64609         | .08140          |
| Work_Eng         | Private Sector                                 | 291 | 5.4642 | 1.06994        | .06272          |
|                  | Public Sector                                  | 63  | 5.3997 | .96879         | .12206          |
| Job_Sat          | Private Sector                                 | 291 | 4.5687 | .82510         | .04837          |
|                  | Public Sector                                  | 63  | 4.3069 | .88177         | .11109          |
| Affective_comm   | Private Sector                                 | 291 | 3.3574 | 1.02226        | .05993          |
|                  | Public Sector                                  | 63  | 3.2169 | .87202         | .10986          |
| Continuance_comm | Private Sector                                 | 291 | 2.8477 | .97049         | .05689          |
|                  | Public Sector                                  | 63  | 3.0794 | .74226         | .09352          |
| Normative_comm   | Private Sector                                 | 291 | 3.3986 | .99189         | .05815          |
|                  | Public Sector                                  | 63  | 3.3915 | .86455         | .10892          |

Source: IBM SPSS output data

Evaluation differences of variables according to the sector of the company: T-test results

| Independent Samples Test                |                             |       |      |                              |         |                          |                          |                 |                       |   |         |
|---|-----------------------------|-------|------|------------------------------|---------|--------------------------|--------------------------|-----------------|-----------------------|---|---------|
| Levene's Test for Equality of Variances |                             |       |      | t-test for Equality of Means |         |                          |                          |                 |                       |   |         |
|   |                             | F     | Sig. | t                            | df      | Significance One-Sided p | Significance Two-Sided p | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |         |
| TL                                      | Equal variances assumed     | .888  | .347 | 1.421                        | 352     | .078                     | .156                     | .14744          | .10373                | -.05657                                   | .35145  |
|   | Equal variances not assumed |       |      | 1.586                        | 103.457 | .058                     | .116                     | .14744          | .09297                | -.03694                                   | .33182  |
| Work_Eng                                | Equal variances assumed     | 1.331 | .249 | .441                         | 352     | .330                     | .659                     | .06452          | .14630                | -.22321                                   | .35225  |
|   | Equal variances not assumed |       |      | .470                         | 97.611  | .320                     | .639                     | .06452          | .13723                | -.20782                                   | .33686  |
| Job_Sat                                 | Equal variances assumed     | .118  | .731 | 2.256                        | 352     | .012                     | .025                     | .26185          | .11608                | .03355                                    | .49015  |
|   | Equal variances not assumed |       |      | 2.161                        | 87.065  | .017                     | .033                     | .26185          | .12117                | .02102                                    | .50268  |
| Affective_comm                          | Equal variances assumed     | 2.786 | .096 | 1.013                        | 352     | .156                     | .312                     | .14046          | .13860                | -.13214                                   | .41305  |
|   | Equal variances not assumed |       |      | 1.122                        | 102.442 | .132                     | .264                     | .14046          | .12515                | -.10776                                   | .38867  |
| Continuance_comm                        | Equal variances assumed     | 7.762 | .006 | -1.785                       | 352     | .038                     | .075                     | -.23171         | .12983                | -.48706                                   | .02364  |
|   | Equal variances not assumed |       |      | -2.117                       | 113.073 | .018                     | .036                     | -.23171         | .10946                | -.44857                                   | -.01485 |
| Normative_comm                          | Equal variances assumed     | 1.314 | .252 | .053                         | 352     | .479                     | .958                     | .00709          | .13488                | -.25819                                   | .27237  |
|   | Equal variances not assumed |       |      | .057                         | 100.623 | .477                     | .954                     | .00709          | .12347                | -.23785                                   | .25204  |

Source: IBM SPSS output data

## Annex.12 Regression analysis results

The impact of transformational leadership on organizational commitment: linear regression

### Model Summary<sup>b</sup>

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .468 <sup>a</sup> | .219     | .217              | .75810                     | 1.826         |

a. Predictors: (Constant), TL

b. Dependent Variable: Org\_Comm

### ANOVA<sup>a</sup>

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.               |
|-------|------------|----------------|-----|-------------|--------|--------------------|
| 1     | Regression | 56.883         | 1   | 56.883      | 98.977 | <.001 <sup>b</sup> |
|       | Residual   | 202.298        | 352 | .575        |        |                    |
|       | Total      | 259.181        | 353 |             |        |                    |

a. Dependent Variable: Org\_Comm

b. Predictors: (Constant), TL

### Coefficients<sup>a</sup>

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig.  | Collinearity Statistics |       |
|-------|------------|-----------------------------|------------|---------------------------|-------|-------|-------------------------|-------|
|       |            | B                           | Std. Error | Beta                      |       |       | Tolerance               | VIF   |
| 1     | (Constant) | 1.055                       | .220       |                           | 4.797 | <.001 |                         |       |
|       | TL         | .537                        | .054       | .468                      | 9.949 | <.001 | 1.000                   | 1.000 |

a. Dependent Variable: Org\_Comm

### Collinearity Diagnostics<sup>a</sup>

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions |     |
|-------|-----------|------------|-----------------|----------------------|-----|
|       |           |            |                 | (Constant)           | TL  |
| 1     | 1         | 1.983      | 1.000           | .01                  | .01 |
|       | 2         | .017       | 10.825          | .99                  | .99 |

a. Dependent Variable: Org\_Comm

Source: IBM SPSS output data

The impact of transformational leadership on affective organizational commitment: linear regression

### Model Summary<sup>b</sup>

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .466 <sup>a</sup> | .217     | .215              | .88396                     | 1.937         |

a. Predictors: (Constant), TL

b. Dependent Variable: Affective\_comm

**ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.               |
|-------|------------|----------------|-----|-------------|--------|--------------------|
| 1     | Regression | 76.172         | 1   | 76.172      | 97.483 | <.001 <sup>b</sup> |
|       | Residual   | 275.049        | 352 | .781        |        |                    |
|       | Total      | 351.222        | 353 |             |        |                    |

a. Dependent Variable: Affective\_comm

b. Predictors: (Constant), TL

**Coefficients<sup>a</sup>**

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig.  | Collinearity Statistics |       |
|-------|------------|-----------------------------|------------|---------------------------|-------|-------|-------------------------|-------|
|       |            | B                           | Std. Error | Beta                      |       |       | Tolerance               | VIF   |
| 1     | (Constant) | .843                        | .256       |                           | 3.287 | .001  |                         |       |
|       | TL         | .621                        | .063       | .466                      | 9.873 | <.001 | 1.000                   | 1.000 |

a. Dependent Variable: Affective\_comm

**Collinearity Diagnostics<sup>a</sup>**

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions |     |
|-------|-----------|------------|-----------------|----------------------|-----|
|       |           |            |                 | (Constant)           | TL  |
| 1     | 1         | 1.983      | 1.000           | .01                  | .01 |
|       | 2         | .017       | 10.825          | .99                  | .99 |

a. Dependent Variable: Affective\_comm

Source: IBM SPSS output data

The impact of transformational leadership on continuance organizational commitment: linear regression

**Model Summary<sup>b</sup>**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .302 <sup>a</sup> | .091     | .089              | .89474                     | 1.812         |

a. Predictors: (Constant), TL

b. Dependent Variable: Continuance\_comm

**ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.               |
|-------|------------|----------------|-----|-------------|--------|--------------------|
| 1     | Regression | 28.274         | 1   | 28.274      | 35.318 | <.001 <sup>b</sup> |
|       | Residual   | 281.800        | 352 | .801        |        |                    |
|       | Total      | 310.074        | 353 |             |        |                    |

a. Dependent Variable: Continuance\_comm

b. Predictors: (Constant), TL

**Coefficients<sup>a</sup>**

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig.  | Collinearity Statistics |       |
|-------|------------|-----------------------------|------------|---------------------------|-------|-------|-------------------------|-------|
|       |            | B                           | Std. Error | Beta                      |       |       | Tolerance               | VIF   |
| 1     | (Constant) | 1.372                       | .260       |                           | 5.286 | <.001 |                         |       |
|       | TL         | .379                        | .064       | .302                      | 5.943 | <.001 | 1.000                   | 1.000 |

a. Dependent Variable: Continuance\_comm

**Collinearity Diagnostics<sup>a</sup>**

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions |     |
|-------|-----------|------------|-----------------|----------------------|-----|
|       |           |            |                 | (Constant)           | TL  |
| 1     | 1         | 1.983      | 1.000           | .01                  | .01 |
|       | 2         | .017       | 10.825          | .99                  | .99 |

a. Dependent Variable: Continuance\_comm

Source: IBM SPSS output data

The impact of transformational leadership on normative organizational commitment: linear regression

### Model Summary<sup>b</sup>

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .471 <sup>a</sup> | .222     | .220              | .85617                     | 1.735         |

a. Predictors: (Constant), TL

b. Dependent Variable: Normative\_comm

### ANOVA<sup>a</sup>

| Model |            | Sum of Squares | df  | Mean Square | F       | Sig.               |
|-------|------------|----------------|-----|-------------|---------|--------------------|
| 1     | Regression | 73.637         | 1   | 73.637      | 100.457 | <.001 <sup>b</sup> |
|       | Residual   | 258.023        | 352 | .733        |         |                    |
|       | Total      | 331.660        | 353 |             |         |                    |

a. Dependent Variable: Normative\_comm

b. Predictors: (Constant), TL

### Coefficients<sup>a</sup>

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig.  | Collinearity Statistics |       |
|-------|------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------|-------|
|       |            | B                           | Std. Error | Beta                      |        |       | Tolerance               | VIF   |
| 1     | (Constant) | .950                        | .248       |                           | 3.824  | <.001 |                         |       |
|       | TL         | .611                        | .061       | .471                      | 10.023 | <.001 | 1.000                   | 1.000 |

a. Dependent Variable: Normative\_comm

### Collinearity Diagnostics<sup>a</sup>

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions |     |
|-------|-----------|------------|-----------------|----------------------|-----|
|       |           |            |                 | (Constant)           | TL  |
| 1     | 1         | 1.983      | 1.000           | .01                  | .01 |
|       | 2         | .017       | 10.825          | .99                  | .99 |

a. Dependent Variable: Normative\_comm

Source: IBM SPSS output data

## Annex.13 Mediation analysis results

### Model summary

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Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 4.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D.      [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2022). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 4  
Y : Aff\_comm  
X : TL  
M1 : Job\_Sat  
M2 : Work\_Eng

Sample  
Size: 354

\*\*\*\*\*

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 4.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D.      [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2022). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 4  
Y : Nor\_comm  
X : TL  
M1 : Job\_Sat  
M2 : Work\_Eng

Sample  
Size: 354

\*\*\*\*\*

Run MATRIX procedure:

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\*\*\*\*\*

Model : 4  
Y : Con\_comm  
X : TL  
M1 : Job\_Sat  
M2 : Work\_Eng

Sample  
Size: 354

\*\*\*\*\*

Source: IBM SPSS output data

### The relationship between transformational leadership and job satisfaction

\*\*\*\*\*

OUTCOME VARIABLE:

Job\_Sat

Model Summary

| R     | R-sq  | MSE   | F        | df1    | df2      | p     |
|-------|-------|-------|----------|--------|----------|-------|
| .6501 | .4227 | .4087 | 257.7038 | 1.0000 | 352.0000 | .0000 |

Model

|          | coeff  | se    | t       | p     | LLCI   | ULCI   |
|----------|--------|-------|---------|-------|--------|--------|
| constant | 1.5950 | .1855 | 8.5990  | .0000 | 1.2302 | 1.9597 |
| TL       | .7307  | .0455 | 16.0532 | .0000 | .6412  | .8202  |

Standardized coefficients

|    | coeff |
|----|-------|
| TL | .6501 |

\*\*\*\*\*

Source: IBM SPSS output data



# The relationship between transformational leadership and employee engagement

\*\*\*\*\*

OUTCOME VARIABLE:

Work\_Eng

## Model Summary

| R     | R-sq  | MSE   | F        | df1    | df2      | p     |
|-------|-------|-------|----------|--------|----------|-------|
| .5039 | .2539 | .8275 | 119.7895 | 1.0000 | 352.0000 | .0000 |

## Model

|          | coeff  | se    | t       | p     | LLCI   | ULCI   |
|----------|--------|-------|---------|-------|--------|--------|
| constant | 2.6131 | .2639 | 9.9011  | .0000 | 2.0940 | 3.1321 |
| TL       | .7088  | .0648 | 10.9448 | .0000 | .5815  | .8362  |

## Standardized coefficients

|    | coeff |
|----|-------|
| TL | .5039 |

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Source: IBM SPSS output data

# The relationship between transformational leadership, job satisfaction, employee engagement, and organizational commitment (all its dimensions): multivariate regression

\*\*\*\*\*

OUTCOME VARIABLE:

Aff\_comm

## Model Summary

| R     | R-sq  | MSE   | F        | df1    | df2      | p     |
|-------|-------|-------|----------|--------|----------|-------|
| .7133 | .5089 | .4929 | 120.8755 | 3.0000 | 350.0000 | .0000 |

## Model

|          | coeff  | se    | t       | p     | LLCI    | ULCI   |
|----------|--------|-------|---------|-------|---------|--------|
| constant | -.8385 | .2347 | -3.5727 | .0004 | -1.3001 | -.3769 |
| TL       | .0462  | .0664 | .6959   | .4870 | -.0843  | .1767  |
| Job_Sat  | .3995  | .0678 | 5.8881  | .0000 | .2661   | .5329  |
| Work_Eng | .3997  | .0477 | 8.3816  | .0000 | .3059   | .4935  |

## Standardized coefficients

|          | coeff |
|----------|-------|
| TL       | .0346 |
| Job_Sat  | .3365 |
| Work_Eng | .4214 |

\*\*\*\*\*

OUTCOME VARIABLE:

Nor\_comm

Model Summary

| R     | R-sq  | MSE   | F        | df1    | df2      | p     |
|-------|-------|-------|----------|--------|----------|-------|
| .6908 | .4772 | .4954 | 106.4880 | 3.0000 | 350.0000 | .0000 |

Model

|          | coeff  | se    | t       | p     | LLCI    | ULCI   |
|----------|--------|-------|---------|-------|---------|--------|
| constant | -.5705 | .2353 | -2.4244 | .0158 | -1.0333 | -.1077 |
| TL       | .0719  | .0665 | 1.0810  | .2805 | -.0589  | .2028  |
| Job_Sat  | .4249  | .0680 | 6.2466  | .0000 | .2911   | .5587  |
| Work_Eng | .3224  | .0478 | 6.7444  | .0000 | .2284   | .4165  |

Standardized coefficients

|          | coeff |
|----------|-------|
| TL       | .0555 |
| Job_Sat  | .3683 |
| Work_Eng | .3498 |

OUTCOME VARIABLE:

Con\_comm

Model Summary

| R     | R-sq  | MSE   | F       | df1    | df2      | p     |
|-------|-------|-------|---------|--------|----------|-------|
| .4295 | .1844 | .7225 | 26.3838 | 3.0000 | 350.0000 | .0000 |

Model

|          | coeff | se    | t      | p     | LLCI   | ULCI   |
|----------|-------|-------|--------|-------|--------|--------|
| constant | .5103 | .2842 | 1.7957 | .0734 | -.0486 | 1.0692 |
| TL       | .1242 | .0803 | 1.5458 | .1230 | -.0338 | .2822  |
| Job_Sat  | .0690 | .0822 | .8395  | .4018 | -.0926 | .2305  |
| Work_Eng | .2878 | .0577 | 4.9844 | .0000 | .1742  | .4013  |

Standardized coefficients

|          | coeff |
|----------|-------|
| TL       | .0991 |
| Job_Sat  | .0618 |
| Work_Eng | .3229 |

Source: IBM SPSS output data

The relationship between transformational leadership and organizational commitment (all its dimensions)

OUTCOME VARIABLE:

Aff\_comm

Model Summary

| R     | R-sq  | MSE   | F       | df1    | df2      | p     |
|-------|-------|-------|---------|--------|----------|-------|
| .4657 | .2169 | .7814 | 97.4832 | 1.0000 | 352.0000 | .0000 |

Model

|          | coeff | se    | t      | p     | LLCI  | ULCI   |
|----------|-------|-------|--------|-------|-------|--------|
| constant | .8431 | .2565 | 3.2872 | .0011 | .3387 | 1.3475 |
| TL       | .6214 | .0629 | 9.8734 | .0000 | .4976 | .7452  |

Standardized coefficients

|    | coeff |
|----|-------|
| TL | .4657 |

OUTCOME VARIABLE:

Nor\_comm

Model Summary

| R     | R-sq  | MSE   | F        | df1    | df2      | p     |
|-------|-------|-------|----------|--------|----------|-------|
| .4712 | .2220 | .7330 | 100.4571 | 1.0000 | 352.0000 | .0000 |

Model

|          | coeff | se    | t       | p     | LLCI  | ULCI   |
|----------|-------|-------|---------|-------|-------|--------|
| constant | .9498 | .2484 | 3.8237  | .0002 | .4613 | 1.4383 |
| TL       | .6110 | .0610 | 10.0228 | .0000 | .4911 | .7308  |

Standardized coefficients

|    | coeff |
|----|-------|
| TL | .4712 |

OUTCOME VARIABLE:

Con\_comm

Model Summary

| R     | R-sq  | MSE   | F       | df1    | df2      | p     |
|-------|-------|-------|---------|--------|----------|-------|
| .3020 | .0912 | .8006 | 35.3176 | 1.0000 | 352.0000 | .0000 |

Model

|          | coeff  | se    | t      | p     | LLCI  | ULCI   |
|----------|--------|-------|--------|-------|-------|--------|
| constant | 1.3723 | .2596 | 5.2862 | .0000 | .8617 | 1.8828 |
| TL       | .3786  | .0637 | 5.9429 | .0000 | .2533 | .5039  |

Standardized coefficients

|    | coeff |
|----|-------|
| TL | .3020 |

Source: IBM SPSS output data

Total, direct, and indirect effects

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

| Effect | se    | t      | p     | LLCI  | ULCI  | c_cs  |
|--------|-------|--------|-------|-------|-------|-------|
| .6214  | .0629 | 9.8734 | .0000 | .4976 | .7452 | .4657 |

Direct effect of X on Y

| Effect | se    | t     | p     | LLCI   | ULCI  | c'_cs |
|--------|-------|-------|-------|--------|-------|-------|
| .0462  | .0664 | .6959 | .4870 | -.0843 | .1767 | .0346 |

Indirect effect(s) of X on Y:

|          | Effect | BootSE | BootLLCI | BootULCI |
|----------|--------|--------|----------|----------|
| TOTAL    | .5752  | .0601  | .4600    | .6982    |
| Job_Sat  | .2919  | .0578  | .1817    | .4100    |
| Work_Eng | .2833  | .0443  | .2013    | .3756    |

Completely standardized indirect effect(s) of X on Y:

|          | Effect | BootSE | BootLLCI | BootULCI |
|----------|--------|--------|----------|----------|
| TOTAL    | .4311  | .0387  | .3521    | .5046    |
| Job_Sat  | .2188  | .0411  | .1397    | .3006    |
| Work_Eng | .2123  | .0317  | .1510    | .2772    |

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

| Effect | se    | t       | p     | LLCI  | ULCI  | c_cs  |
|--------|-------|---------|-------|-------|-------|-------|
| .6110  | .0610 | 10.0228 | .0000 | .4911 | .7308 | .4712 |

Direct effect of X on Y

| Effect | se    | t      | p     | LLCI   | ULCI  | c'_cs |
|--------|-------|--------|-------|--------|-------|-------|
| .0719  | .0665 | 1.0810 | .2805 | -.0589 | .2028 | .0555 |

Indirect effect(s) of X on Y:

|          | Effect | BootSE | BootLLCI | BootULCI |
|----------|--------|--------|----------|----------|
| TOTAL    | .5390  | .0594  | .4288    | .6622    |
| Job_Sat  | .3105  | .0576  | .2008    | .4284    |
| Work_Eng | .2286  | .0422  | .1501    | .3157    |

Completely standardized indirect effect(s) of X on Y:

|          | Effect | BootSE | BootLLCI | BootULCI |
|----------|--------|--------|----------|----------|
| TOTAL    | .4157  | .0393  | .3397    | .4945    |
| Job_Sat  | .2395  | .0420  | .1571    | .3199    |
| Work_Eng | .1763  | .0311  | .1161    | .2385    |

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

| Effect | se    | t      | p     | LLCI  | ULCI  | c_cs  |
|--------|-------|--------|-------|-------|-------|-------|
| .3786  | .0637 | 5.9429 | .0000 | .2533 | .5039 | .3020 |

Direct effect of X on Y

| Effect | se    | t      | p     | LLCI   | ULCI  | c'_cs |
|--------|-------|--------|-------|--------|-------|-------|
| .1242  | .0803 | 1.5458 | .1230 | -.0338 | .2822 | .0991 |

Indirect effect(s) of X on Y:

|          | Effect | BootSE | BootLLCI | BootULCI |
|----------|--------|--------|----------|----------|
| TOTAL    | .2544  | .0575  | .1427    | .3704    |
| Job_Sat  | .0504  | .0630  | -.0706   | .1780    |
| Work_Eng | .2040  | .0473  | .1112    | .2977    |

Completely standardized indirect effect(s) of X on Y:

|          | Effect | BootSE | BootLLCI | BootULCI |
|----------|--------|--------|----------|----------|
| TOTAL    | .2029  | .0438  | .1163    | .2885    |
| Job_Sat  | .0402  | .0498  | -.0575   | .1383    |
| Work_Eng | .1627  | .0370  | .0890    | .2348    |

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----

Source: IBM SPSS output data