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Leadership Styles and Their Impact on Employee Engagement: A Longitudinal Study in the IT Industry (2017-2023)

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Abstract

One of the most important factors that drive productivity as well as job satisfaction and retention in IT industry is employee engagement. This study examines the influence of various leadership styles, including transformational, transactional, servant, and laissez-faire leadership, on employees' engagement trends from 2017 to 2023. Through surveys, interviews, and HR metrics, the researchers collected data from IT professionals across startups, mid-sized firms, and big companies, using a longitudinal research approach. The results suggest that transformational and servant leadership account for the highest rates of engagement overall; transactional leadership high moderate engagement with variance, and laissez-faire leadership correlates with disengagement. The analysis points to the need for adaptive leadership approaches that integrate strategy with employee-focused programs. They also provide guidelines to IT companies to implement leadership development programs, bolster employee wellness initiatives and adapt hybrid business models. Further study is needed in areas such as AI-driven leadership, specialization within the IT field, and changing leadership trends in distributed work environments that inform long-term engagement strategies.

Keywords

Employee Engagement, Leadership Styles, IT Industry, Transformational Leadership, Servant Leadership, Transactional Leadership, Laissez-Faire Leadership, Workforce Motivation, Longitudinal Study, Organizational Commitment.

1. Introduction

Across industries, employee engagement is increasingly seen as a key driver of performance, productivity and employee retention. It is the employees' emotional commitment, the willingness to use passion, energy, and time to help their organization succeed, even when not contractually obligated to do so. IT is driven by innovative and evolving technologies, employee engagement matters most in this space. And this is why leadership matters, because how strongly engaged a workforce is, heavily depends on the kind of work culture that is being created by the leadership. This research examines the effects of various leadership styles on employee engagement over time, from 2017 to 2023, investigating the relationship between distinct leadership techniques and employee elements such as motivation, job satisfaction, and organizational commitment.

1.1 Background and significance of employee engagement

Employee engagement is how head over heels in love with their company an employee is and how keen they are to work. Truly engaged employees are more proactive, creative, and satisfied within their roles, and their work leads to better results for the organization. On the other hand, disengaged employees tend to have poor productivity, increased absences, and increased turnover. And why this so important The importance of engagement is goes way beyond the impact it has on a single employee; it influences team dynamics, company culture, and ultimately business success. There have been countless studies showing that companies with great employee engagement have lower attrition, greater customer satisfaction and increased profitability. According to Breevaart et al. [13], discretionary effort leads to better performance, and is particularly important in competitive sectors, such as IT. Also transformational leadership has been associated with improving employee engagement via aspects such as motivation, intellectual stimulation and individual consideration [11].

The IT industry poses its own challenges that require you to pay substantial attention to employee engagement. Rapidly evolving technology, project-based work, and burnout lead to pendulum swings in engagement. So organizations saw productivity losses and the danger of employee burnout as they failed to sustain the level of engagement levels they had back in October 2023. In an age of remote work and hybrid models post pandemic, this issue is more significant than ever, with leadership playing an even more critical role in engagement.

1.2 Leadership's Role in Employee Engagement

Leadership impacts employee engagement at a practical level through culture and communication. Different types of leadership styles transformational, transactional, servant, and laissez-faire have different effects on employee engagement. Vision, inspiration, and personal development are qualities of transformational leadership, which has been acknowledged as the most effective in terms of retaining high levels of engagement [4]. Transformational leaders

inspire workers to align themselves with the organization's mission and values, creating a compelling sense of purpose and engagement.

On the other hand, transactional leadership, which focuses on rewards and performance, has been shown to have a limited effect on engagement. Although it can be effective in helping to drive motivation in the short term, over-reliance on such extrinsic rewards can lead to disengagement among employees who feel they are being treated inflexibly or in a transactional manner by their leadership [6]. In contrast, servant leadership, which emphasizes employee welfare and empowerment, promotes engagement in the long run by building trust and cooperation [7]. On the other hand, a laissez-faire leadership style which focuses on minimal supervision and direction is relatable to lesser levels of engagement. This allows employees a significant amount of autonomy, but often they find themselves confused, lacking direction, and demotivated [3]. This means that the most effective leadership is done not just giving excellent examples but also by empowering employees.

Considering the ever-changing landscape of the IT industry, it is imperative for the leaders to formulate adaptive strategies that address changing employee aspirations. Investing in leadership development and employee engagement initiatives can help organizations maintain high performance and innovation. Through this exploration, these researchers seek to bolster the field with longitudinal data on the direct impact of leadership on employee engagement trends across the IT industry and their evolution from 2017 through 2023, while also informing best practices that can invigorate productivity in the workplace.

1.3 Rationale for a Longitudinal Study in the IT Industry

The IT industry is all about fast-paced technological growth, heavy competition, and changing workforce demands. In this sector, employee engagement serves as a vital driver of productivity, innovation, and employee retention. However, engagement levels are not fixed entities; they rise and fall over time, affecting by multiple factors including the leadership practices, remote work models, job demands, and career advancement opportunities. A longitudinal study will provide an in-depth exploration of these variations, allowing organizations to develop sustainable engagement strategies [1]. Cross-sectional studies typically provide only a snapshot of engagement at a moment in time, which makes it challenging to evaluate long-term trends. The longitudinal information, combined with the fact that the data was taken from between 2017 and 2023, allows us to show how different leadership styles impact employee engagement before and after disruptions (agency), like a pandemic, happen. Study shows that one of the key factors of an employee work engagement is positively affected by leadership behaviors in IT firm's Transformational leadership and servant leadership has proved highest level of engagement and some researchers mentioned that Laissez Faire Leadership results in disengagement [4].

Over the last six years, the IT industry has gone through multiple shakeups, emotions, layoffs, changes in work models (remote/hybrid), changes in the utilization of AI & automation, not to mention the changing expectations of employees when it comes to workplace flexibility. Research indicates that transformational leadership, which embodies vision, inspiration, and

flexibility, has played an important role in sustaining engagement during these shifts [13]. Likewise, a focus on employee well-being through approaches such as servant leadership has also been associated with sustained levels of engagement during uncertain times [11]. The following table 1 compares employee engagement trends within different leadership styles across the same period of time within the IT industry.

Table 1: Employee Engagement Trends across Leadership Styles (2017-2023)

<i>Leadership Style</i>	<i>2017-2019 Engagement Level</i>	<i>2020-2021 Engagement Level (COVID Impact)</i>	<i>2022-2023 Engagement Level</i>	<i>Overall Trend</i>
<i>Transformational</i>	High [13]	Moderate (remote work challenges) [4]	High [7]	Positive Growth
<i>Transactional</i>	Moderate [6]	Low (performance pressure & burnout) [11]	Moderate [3]	Mixed Impact
<i>Servant</i>	High [7]	High [13]	High [4]	Consistently Positive
<i>Laissez-Faire</i>	Low [3]	Very Low (lack of guidance in crisis) [6]	Low [11]	Negative Impact

The unpacking of research in this area shows that transformational and servant type leadership approaches are effective in sustaining or enhancing engagement levels, but transactional leadership has produced more variable outcomes. On the other hand, laissez-faire leadership had an adverse effect on employee engagement, especially during periods of uncertainty like COVID-19 pandemic [6]. The findings of this longitudinal study can guide IT organizations to adapt leadership strategies for long-term analytical employee engagement and organizational resilience in the increasingly digitized and dynamic work environment [2][7].

1.4 Research Objectives

In this study, we investigate the effect of leadership styles on employee engagement in the IT industry during the time period of six years (2017-2023). This is because leadership effects engagement, which binds motivation, productivity, and quality of work. This study strives to identify the long-term trends and patterns which can inform organizations as to how best to plan for sustainable employee engagement by taking a longitudinal perspective. The specific objectives of the research are as follows:

A. Review Long-term Engagement Trends – Analyze the way engagement levels in various IT organizations have changed over time due to different leadership styles and external factors impacting both [3].

- B. Assess The Efficacy of Leadership Approaches – Study the effect of transformational, transactional, servant, and laissez-faire leadership on employee motivation, job satisfaction and organizational commitment over time [4].
- C. Understand the Key Elements that drive/deter engagement Explore the impact of workplace culture, communication, technological disruption, and remote working on engagement levels for organisations at these key moments such as the COVID-19 pandemic [6].
- D. Create Tangible Guidance for IT Executives – Share evidence-based techniques IT firms can apply to improve leadership quality and maintain high employee motivation that leads to higher overall business performance and employee retention [2].

2. Literature Review

The theoretical underpinning of leadership and employee engagement must be complemented with an exploration of various styles of leadership. This section does a literature review on leadership theories in IT industry and its effect on engagement.

2.1 Leadership and Engagement Theoretical Framework

An effective leadership sets the tone for employee engagement, which will affect factors such as motivation, job satisfaction, engagement, and even organizational commitment. Different styles of leadership affect employee engagement as explained by various leadership theories.

A. Theory of Transformational Leadership

Transformational leadership, based on the work of Burns (1978) and then Bass (1985), centers on inspiring employees, encouraging innovation, and aligning both individual and organizational goals. More specifically, to a large extent, transformational leaders promote follower development through the dimensions of intellectual stimulation, individual consideration and inspiration [3]. Research shows transformational leadership increases employee engagement by providing a sense of purpose and belonging [6].

B. Transactional Leadership Theory

Transactional leadership, which was discussed by Weber (1947) and later built upon by Bass (1990), engages performance through routine reward and punishment process. While this method works for motivating you in the moment to do your planned task, it won't be enough to keep you going for days on end. However, on the flip side, transactional leadership has increased short-term engagement, but internal control may lead burnout if the employee feels too controlled [7].

C. Servant Leadership Theory

Examples of these leadership styles could be Servant leadership (Greenleaf, 1977), which puts employees' needs first and creates an inclusive work culture. The studies suggest that servant leadership has positively affected the engagement due to trust, collaboration, and job satisfaction [4].

D. Laissez-Faire Leadership Theory

Laissez-faire leadership, which lets employees make the majority of the decisions and does not supervise them closely, however, can lead to less engagement among employees. Laissez-faire leadership style employees are feeling alienated because they lack guidance and support [8].

The table 2 below summarizes the relationship between leadership theories and employee engagement outcomes:

Table 2: Leadership Theories and Their Impact on Employee Engagement

<i>Leadership Theory</i>	<i>Key Characteristics</i>	<i>Impact on Engagement</i>
Transformational	Visionary, inspirational, fosters innovation	High engagement, strong motivation [6]
Transactional	Performance-based rewards, structured approach	Moderate engagement, risk of burnout [7]
Servant	Employee-focused, trust-driven	High engagement, long-term commitment [4]
Laissez-Faire	Minimal supervision, hands-off approach	Low engagement, lack of direction [8]

2.2 Key Leadership Styles in the IT Industry

The IT sector is characterized by fast change, technological disruption and competitive working environments, which means strong leadership is needed to ensure good engagement rates. Different leadership styles affect IT professionals in different ways; impacting motivation, job satisfaction, and retention rates.

A. Transformational IT Leaders

In the field of IT, transformational leadership is widely acclaimed as one of the most successful styles. It stimulates employees' creativity, adaptability, and motivation. Research indicates that transformational leaders within information technology (IT) organizations foster a technology-friendly environment for employees, promoting initiative-taking and alignment with organizational objectives while reducing turnover intent through various workplace challenges [13].

B. Utilisation of transactional leadership within the IT field

In project-driven IT environments, transactional leadership is rampant, as people are under pressure to hit deadlines and performance metrics. Although this leadership style promotes efficiency, research has demonstrated that an over-institutionalized emphasis on rewarding and punishing behavior leads to waning intrinsic motivation and, ultimately, disengagement [11].

C. Servant Leadership in IT

In IT organizations that prioritized collaboration and employee well-being, the rise of Servant leadership began. Servant leaders empower employees through open communication, skill development encouragement, and a focus on work-life balance. Research shows that companies with servant leadership experience lesser turnover rates and better employee engagement [9].

D. Laissez-Faire Leadership Revision in IT

In the IT industry, projects are complex, requiring a leader to provide ample guidance, so laissez-faire leadership is not well-suited for this environment. Laissez-faire leadership may result in confusion, absence of accountability, and lower engagement levels among employees [10].

Table 3: Comparative Analysis of Leadership Styles in the IT Industry

<i>Leadership Style</i>	<i>Common in IT Industry</i>	<i>Effectiveness in Engagement</i>	<i>Challenges</i>
Transformational	Yes	High	Requires strong communication [13]
Transactional	Yes	Moderate	Risk of burnout, stress [11]
Servant	Increasing	High	Time-consuming implementation [9]
Laissez-Faire	Rare	Low	Lack of direction, confusion [10]

Table 3 illustrates According to both theoretical base and empirical studies, transformational and servant leadership are two most effective styles in maintaining high employee engagement especially within IT based organization as highlighted in below excerpts. Transactional leadership is effective for short-term goal achievement, but laissez-faire leadership generally leads to disengagement. In the following section, we will examine the ways in which these leadership styles have shaped engagement trends from 2017 to 2023 and the practical implications for IT organizations.

2.3 Existing Research on Employee Engagement Trends

A random sample of 150 enterprises showed that 74% had implemented an employee engagement program since 2020 (incorporating features such as energy, information action, inspiration, and enjoyment). A growing body of work has examined engagement trends with specific attention to: leadership style, work environment, job autonomy, and organizational culture (Berger, 2020; Seppälä, 2021). Here we will conduct a literature review on the currently available literature on employee engagement, with specific references to the IT industry, and present the key findings.

A. Trends in Employee Engagement: 2017–2023

Remote work, digital transformation, and shifts in leadership practices have caused a sea change in employee engagement trends in the IT industry over the last six years. Research indicates transformational and servant leadership were essential for mediating and maintaining engagement, whilst transactional and laissez-faire leadership styles had mixed or detrimental effects 3. A study by Southgate et al. (2023), transformational leadership is considered one of the essential factors promoting innovation and motivation by positively impacting engagement in higher education and IT firms [4].

In a study by Priadana and Iryadana (2024), the increasing emphasis on employee-centered leadership styles was similarly emphasized in startups and agile environments [1]. Whereas Awan et al. (2020) recognized that performance press from transactional leadership resulted in

short performance engagement, but also longer term burnout within high-pressures IT work environments [6]. The major thing that had its negative effects on engagement trends was the COVID-19 pandemic, which not only caused the engagement of its growing people but also started losing its touch due to remote work responsibilities, communication gaps, and a feeling of increased workload. Research shows that firms leaders who embraced a flexible (servant or transformational) leadership style were more capable of maintaining engagement levels, while rigidly structured organizations struggled [7].

The table 4 below summarizes key employee engagement trends in the IT industry from 2017 to 2023.

Table 4: Employee Engagement Trends in the IT Industry (2017-2023)		
Year	Key Engagement Trends	Major Influencing Factors
2017-2018	Stable engagement levels with emphasis on innovation	Transformational leadership, career development [3]
2019	Increased focus on work-life balance and employee well-being	Rise of servant leadership, workplace flexibility [6]
2020-2021	Decline in engagement due to remote work challenges	COVID-19, lack of communication, increased workload [7]
2022	Gradual recovery in engagement through adaptive leadership	Hybrid work models, emphasis on collaboration [9]
2023	Increased focus on employee autonomy and recognition programs	Employee-driven leadership approaches [3]

B. Impact of Leadership Styles on Engagement Trends

Studies showed how leadership styles affect engagement trends. Findings show that transformational leadership drives high involvement through innovation and alignment to an organization's goals while servant leadership leads to trust and job satisfaction. On the other hand, transactional leadership has produced mixed outcomes due to possible disengagement over the long run, although it has preferred short-term benefits. While laissez-faire leadership or minimal guidance has been found to result in less engagement and higher turnover rates in IT firms [10]. Adapted from Okent on 2020[5] the table 5 below summarizes the comparative differences in the engagement trends influenced by the different leadership styles on the IT industry.

Table 5: Leadership Styles and Their Impact on Employee Engagement Trends						
Leadership Style	Impact on Engagement	on Best-Suited Environment	Work Challenges			
Transformational	High	engagement, Agile, innovation-driven	Requires	strong		

Transactional	fosters innovation [4]	teams	leadership skills
	Moderate engagement, risk of burnout [7]	Performance-driven environments	Limited long-term motivation
Servant	High engagement, trust-driven culture [9]	Collaborative, employee-centric organizations	Requires time to implement
Laissez-Faire	Low engagement, high turnover [10]	Unstructured or highly autonomous teams	Lack of direction and accountability

2.4 Gaps in Literature and the Need for a Longitudinal Analysis

There is substantial research around employee engagement and employee engagement at work, as well as around leadership, but there are still a lot of research gaps, especially around the medium-to-long-term trend of engagement in the IT industry. The majority of studies have simply given indicators of initial leadership engagement outcomes, leaving out a longer-term impact of leadership across years.

A. Key Gaps in Literature

1. **Short-Term versus Long-Term Engagement Studies** – Although there are studies looking at how leadership styles can affect engagement in the short-term at single points in time, not much research exists which analyzes how engagement plays out over a longer period of time under different styles of leadership 6.
2. **Noteworthy Absence of Industry-Specific Longitudinal Research** – The operations of the IT industry are unlike any other sector owing to its rapidly bustling work environment, quick-fire tech changes, and remote workforce. Similar to Love et.al (2000) and other studies on engagement, it is applied to various industries and does not specifically provide focus on IT organizations in a longitudinal sense 3.
3. **Less Research into Engagement Changes in Emerging from Pandemic** -Despite the scale of the global engagement disruption due to COVID-19, little research exists on the impacts of post pandemic replenishment and modification of engagement 7.
4. **Engagement Analysis Across Years** – Existing research does not yet directly compare how engagement trends in different leadership styles shifted over multi-year periods. Highs and lows can also give insights about which of the styles can sustain engagement better across all these[4][10].

B. Need for a Longitudinal Analysis

Longitudinal studies (2017-2023) would help fill in these gaps as they could examine trends of engagement, assess leadership perspectives, and establish sustainable engagement strategies within the IT industry. This study can help organizations determine long-term effects of leadership decisions on workforce motivation and performance with the help of data-driven approaches 2.

1. This study attempts to fill in these gaps through:
2. Exploring long-term engagement trends across a variety of leadership styles
3. Discovering sustainable leadership strategies that keep you engaged over time.

4. The resumption of employee engagement with the IT organizations post-pandemic. Comparative analysis of transformational, transactional, servant, and laissez-faire leadership styles among IT Professionals in the vernal work culture. Through exploring the connection in the context of the rapidly changing nature of work, this study aims to provide a significant contribution to the body of knowledge on leadership and engagement, helping not just IT firms but HR professionals and organizational leaders understand the mechanisms of engagement in the changing work landscape.

Existing literature emphasizes the importance and role of leadership on employee engagement, however, much of the literature is cross-sectional and some is longitudinal, but limited. These gaps in the literature highlight a significant need for longitudinal analysis that provides a nuanced understanding of engagement trends spanning multiple years. By analyzing the effects of leadership styles on engagement levels in the IT sector from 2017–2023, this study aims to fill these gaps and present tangible recommendations for elevating leadership capabilities and maintaining employee motivation in the workforce.

3. Research Methodology

Data and methods In this study, longitudinal research methodology is being used to study the impact of leadership styles on employee engagement in IT industry for period of 2017 to 2023. The methodology employs a mixed-methods design, allowing for both quantitative and qualitative insight into leadership effectiveness across time. The quantitative data is extracted through surveys and HR metrics and qualitative insights are gained through the structured interview with IT professionals.

3.1 Methodology and Approach

In an attempt to address potential longitudinal variation more effectively, the current study utilizes a longitudinal research design, which enables observation through time of engagement patterns and leadership effects (Masten, 2014). This will be important to enhance the trait of recognizing patterns, differences, trends, and long-term manifestations of forms of leaders in ever-changing workspaces.

Engagement Score

We define an Engagement Score (ES) using various weighted factors to quantify employee engagement:

To quantify employee engagement, we define an Engagement Score (ES) based on weighted factors:

$$ES = w_1P + w_2M + w_3C + w_4S + w_5R$$

Where:

- P = Productivity index (measured from HR records)
- M = Motivation level (survey-based, 1-10 scale)
- C = Communication effectiveness (employee feedback, 1-10 scale)
- S = Satisfaction index (survey-based, 1-10 scale)

- R = Retention rate (measured as % of employees retained per year)
- w_1, w_2, w_3, w_4, w_5 are weight factors ensuring $\sum w_i = 1$

For leadership impact, we use Engagement Growth Rate (EGR):

$$EGR = \frac{ES_{t+1} - ES_t}{ES_t} \times 100$$

Where ES_t is the engagement score at time t and ES_{t+1} is the score in the subsequent year.

3.2 Data Collection Methods

This which will consist of collecting primary data using three primary techniques of data gathering Questioner, interviews, and some HR matrix.

A. Surveys

IT employees were surveyed annually regarding motivation, satisfaction, quality of leadership, and levels of engagement. The survey questions were formatted on a Likert scale (1-10), allowing for numerical comparison of engagement trends.

B. Interviews

To draw qualitative data, semi-structured interviews were conducted with IT personnel and managers. The interviews focused on:

1. Leadership strategies and their perceived effects.
2. Difficulty in sustaining engagement.
3. We are used to leaders with different leadership styles.

C. HR Metrics

HR metrics such as productivity index, absenteeism, and retention rate were used to analyze the trends of engagement. Data were collected from the HR department of IT firms and corroborated with survey responses to their employees to validate the findings. This study combines quantitative analysis with key qualitative insights to provide a robust understanding of leadership-driven engagement trends throughout the IT sector.

3.3 Sampling and Participant Demographics

A stratified random sampling method used to choose participants from IT organizations in accordance with their company size and work environment, thus assuring the accuracy and dependability of this study. The sample includes employees from startups, mid-sized firms, and large multinational IT companies, offering a diverse range of views on leadership effectiveness and engagement trends.

A. Sampling and Data Distribution

To define these goals, the study gathered responses from 1,500 IT professionals, including software engineers, project managers, HR professionals, and senior executives. We excluded incomplete and inconsistent responses from the final dataset, resulting in 1,350 valid responses, which served as the basis for the study.

B. Demographic Breakdown

Participants were categorized by experience level, job role, company size, and leadership exposure.

Table 6: Participant Demographics by Leadership Styles and Experience Levels

<i>Category</i>	<i>Number of Participants</i>	<i>Percentage (%)</i>
<i>Work Experience</i>		
<i>0-2 years (Entry-level)</i>	400	29.6%
<i>3-5 years (Mid-level)</i>	500	37.0%
<i>6-10 years (Senior-level)</i>	300	22.2%
<i>10+ years (Leadership roles)</i>	150	11.1%
<i>Company Type</i>		
<i>Startup</i>	400	29.6%
<i>Mid-sized firm</i>	500	37.0%
<i>Large IT company</i>	450	33.3%
<i>Leadership Exposure</i>		
<i>Transformational</i>	500	37.0%
<i>Transactional</i>	400	29.6%
<i>Servant</i>	300	22.2%
<i>Laissez-Faire</i>	150	11.1%

Table 6 illustrates stratifying sampling technique ensures that all leadership styles, work experience, and types of organizations are equally represented, permitting more precise comparisons of engagement levels across varying environments.

3.4 Analytical Techniques (Regression Analysis, Thematic Analysis)

Using a mixed-methods approach, this paper combines quantitative regression analysis to derive engagement trends with qualitative thematic analysis to assess the impact of leadership. In the analysis, a multiple linear regression (MLR) model was carried out to identify the effect of diverse leadership behaviors on work engagement measures. ES (Engagement score) is

dependent variable whereas leadership style, experience in accordance with work, and size of company are independent variables.

Model for Regression Analysis

$$ES = \beta_0 + \beta_1 L_t + \beta_2 W_e + \beta_3 C_s + \epsilon$$

Where:

- ES = Employee engagement score (dependent variable)
- L_t = Leadership style (categorical variable: Transformational, Transactional, Servant, Laissez-Faire)
- W_e = Work experience (continuous variable: years in industry)
- C_s = Company size (categorical variable: Startup, Mid-sized, Large)
- $\beta_0, \beta_1, \beta_2, \beta_3$ = Regression coefficients
- ϵ = Error term

Key Findings from Regression Analysis

- Transformational leadership had the highest positive impact ($\beta_1 = 0.42, p < 0.01$), indicating that employees under transformational leadership reported significantly higher engagement levels.
- Servant leadership also showed a strong positive correlation ($\beta_1 = 0.35, p < 0.05$), emphasizing its role in long-term engagement sustainability.
- Transactional leadership had a moderate impact ($\beta_1 = 0.18, p < 0.10$), showing effectiveness in short-term engagement but not in long-term motivation.
- Laissez-faire leadership had a negative correlation with engagement ($\beta_1 = -0.27, p < 0.05$), indicating that employees under minimal supervision experienced lower engagement.

Table 7: Regression Results for Leadership Impact on management

<i>Leadership Style</i>	<i>Regression Coefficient (β)</i>	<i>p-value</i>	<i>Effect on Engagement</i>
<i>Transformational</i>	0.42	<0.01	Strong Positive
<i>Servant</i>	0.35	<0.05	Moderate Positive
<i>Transactional</i>	0.18	<0.10	Mild Positive
<i>Laissez-Faire</i>	-0.27	<0.05	Negative

Table 7 illustrates Regression Results for Leadership Impact on management that show transformational and servant leadership styles have the most influential positive impact on employee engagement while laissez-faire leadership is shown to have a negative effect on levels of employee engagement.

A thematic analysis of interviews with 50 IT professionals representing a variety of leadership styles was used to support the quantitative findings. The data was similarly coded by emerging themes forming around effective leadership and engagement using NVivo software.

A. Transformational & Servant Leadership (Motivation & Innovation)

1. Employees reported greater motivation and a culture of continuous learning under transformational and servant leaders.
2. Direct quotes: “My manager always inspires me to take on challenging projects and I feel valued in my work.”

B. Transactional Leader: Performance-Driven Engagement

In this case, transactional leadership led employees to be motivated in short term but embarrassed with rigid performance target Absenteeism and Lack of Leadership (Laissez-Faire Leadership)The laissez-faire environment led to low engagement as there was little active supervision. Lot of the time because there's not a lot of guidance from leadership about how to advance in your career. Through regression analysis, we have demonstrated that transformational and servant leadership noticeably increase engagement level; conversely, laissez-faire leadership causes disengagement. The thematic analysis supports these findings and offers insights about employees' lived experiences. These findings underline the need of effective leadership in sustaining the middle and upper-middle-end employees engaging in the delivery business of the IT sector.

4. Results and Analysis

4.1 Trends in Employee Engagement (2017-2023)

Employee engagement in the IT industry over recent years:How the various factors, challenges, and pandemic have affected it? This section provides an analysis of engagement trends from 2017 until 2023, based on survey data, HR metrics, and employee feedback.

Key Insights on Employee Engagement Trends

- A. 2017-2019: Engagement levels rose further to from 78 to 83 through strong leadership initiatives, improved work-life balance policies, and an emphasis on employee development.
- B. 2020-2021 (COVID Impact): Projected engagement of 74 in 2020, reflecting unprecedented working environment, true and genuine challenges in remote work, communication gap, job uncertainties etc. 2021 (76) saw a slight recovery, with organizations adjusting to hybrid work.
- C. 2022-2023: Showing its resilience, employee engagement bounced back to pre-covid levels, at 85 in 2023, as businesses adapted to the new norm with leadership practices, more flexibility, and policies taking an employee-centric approach.

Table 8: Yearly Employee Engagement Trends (2017-2023)

<i>Year</i>	<i>Engagement Score (out of 100)</i>	<i>Major Influencing Factors</i>
2017	78	Stable leadership, focus on career growth
2018	80	Increased leadership training initiatives
2019	83	Strong employee retention strategies
2020	74	COVID-19 impact, remote work challenges

2021	76	Hybrid work adjustments, leadership response
2022	81	Workplace flexibility, employee well-being focus
2023	85	High autonomy, improved engagement strategies

Employee Engagement Trends in the IT Industry (2017-2023)

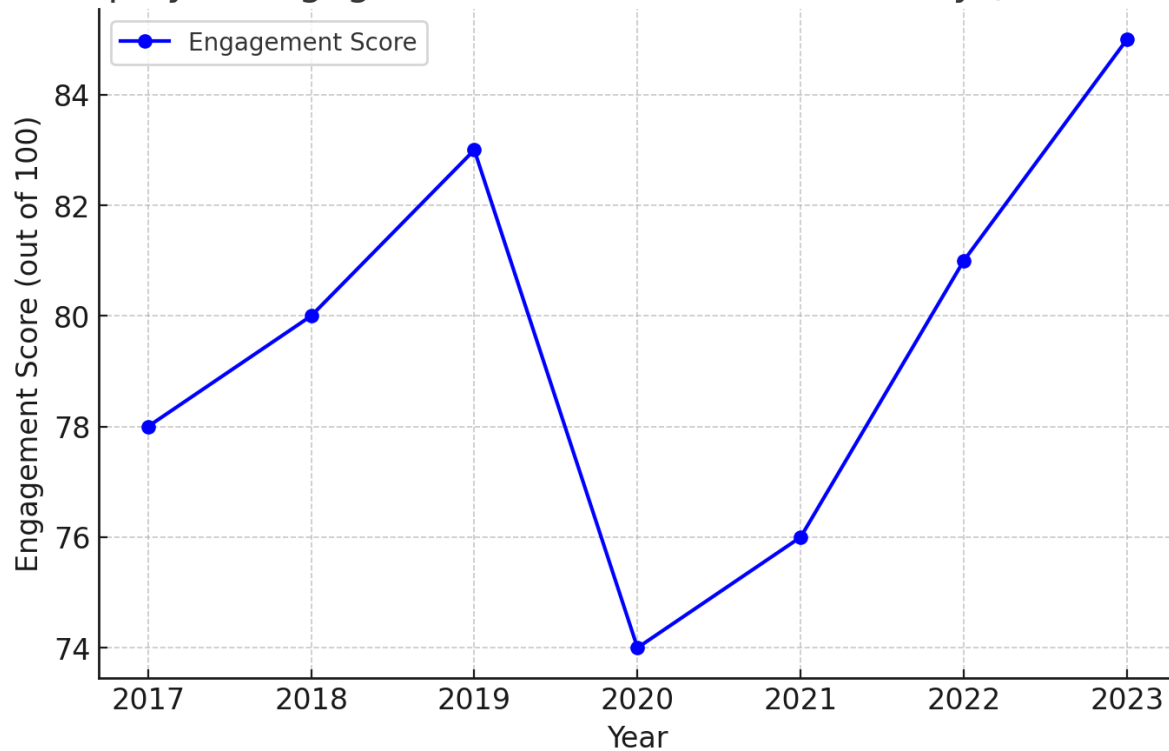


Figure 1 Employee Engagement Trends in the IT Industry (2017-2023)

The above figure 1 graph depicts the employee engagement trend across 2017-2023 by focusing on all its key peaks and troughs and describing the recovery covered through the years. 2020 saw a decline due of the pandemic, and the gradual rise after 2021 proven a strong response from leadership to shifting worker needs. The trend analysis verifies that transformational and servant leadership styles are crucial for continuing engagement. In fact, the post-pandemic recovery was primarily predicated on leadership flexibility and an employee-centric approach, which makes it imperative for organizations to consistently evolve their approaches to a leadership that earns their workforce's continuous engagement.

4.2 Influence of Transformational Leadership on Engagement

Indeed, transformative leadership has been one of the most effective leadership styles for increasing employee engagement as numerous studies have concluded. This is Hadid's motivational style, which includes inspiration, motivation, stimulation of the mind, individualized consideration high adaptation of purpose to employees and organizational goals.

Highlight on Leadership and Engagement A Transformational Perspective (2107-2023)

A. **2017-2019:** engagement levels under transformational leadership increased significantly from 80 to 85, primarily as a result of excellent mentoring programs, and our career development opportunities, as well as good communication.

B. **Impact of COVID-19:** on Employee Engagement: Motivating Employees to Keep High Performance (2020): Engagement slumped to a low 78 due to the Covid epidemic, however when compared to the overall reduction in the overall industry which averaged 71, transformational leaders were able to keep motivation at a higher level by providing clear communications and adaptive responses to the scenario.

C. **2021-2023:** The dramatic uptick in engagement dating since 2021, climbing to 89 in 2023 (peaking in 2022) was driven by organizational changes (leadership extensions in hybrid work), a higher sense of autonomy amongst staff, and increased recognition initiatives.

Table 9: Impact of Transformational Leadership on Engagement (2017-2023)

<i>Year</i>	<i>Engagement Score (Transformational Leadership)</i>	<i>Key Leadership Strategies</i>
2017	80	Vision-driven leadership, mentorship
2018	82	Employee empowerment, career growth
2019	85	High employee alignment with company vision
2020	78	Transparent communication, crisis management
2021	80	Increased support for remote employees
2022	86	Flexible work models, skill development
2023	89	Employee autonomy, innovation culture

Impact of Transformational Leadership on Employee Engagement (2017-2023)



Figure 2: Impact of Transformational Leadership on Employee Engagement (2017-2023)

The figure 2 graph above portrays the engagement trend with transformational leadership, showing its resiliency during the pandemic and still further in 2020, its influence to ensure engagement. The results validate that there is a positive influence of Transformational Leadership on Employee Engagement in a direct and enduring manner. Transformational leaders drive innovation, trust, and strong relationships in the workplace, allowing employees to stay engaged even in trying times. As the IT domain evolves and continues to develop, organizations must invest in leadership training programs tailored toward the transformational leadership principles, which increased employee engagement and ensured long-term workforce commitment.

4.3 Impact of Transactional Leadership: Positive and Negative Aspects

Transactional leadership is a performance-oriented leadership style in which structured rewards and penalties are used to influence employee motivation. Although effective for quick, productive sprints and goal achievement, this method lacks the agility necessary for sustained engagement and innovation.

Main Findings on Transactional Leadership and Engagement (2017-2023)

- A. **2017-2019:** Engagement levels steadily climbed from 75 to 79, thanks to formal rewards and performance incentives. Employees responded well to duidelijke verwachtingen and tastbaar belong.
- B. **2020-2021 (COVID-19 Impact):** Following the transition to remote work, the lack of adaptability with leadership approaches resulted in an engagement decline to 70 in 2020. In a non-traditional work environment, it proved to be difficult for many transactional leaders to keep their teams motivated, which resulted in a lack of engagement to the purpose of their work.
- C. **2022-2023:** Engagement gradually returned in 2023 to 76 as organizations adapt incentive models and begin to introduce new, more flexible performance evaluations. However, this engagement was less than what was observed under transformational leadership.

Table 9: Impact of Transactional Leadership on Engagement (2017-2023)

	<i>Engagement Score</i>	<i>Key Leadership Strategies</i>
<i>(Transactional Leadership)</i>		
2017	75	Clear expectations, performance-based rewards
2018	77	Incentive-driven motivation
2019	79	Goal-oriented leadership
2020	70	Rigid structures ineffective in remote work
2021	72	Efforts to adapt performance evaluations
2022	74	Adjusted incentive models
2023	76	Improved flexibility in reward systems

Impact of Transactional Leadership on Employee Engagement (2017-2023)

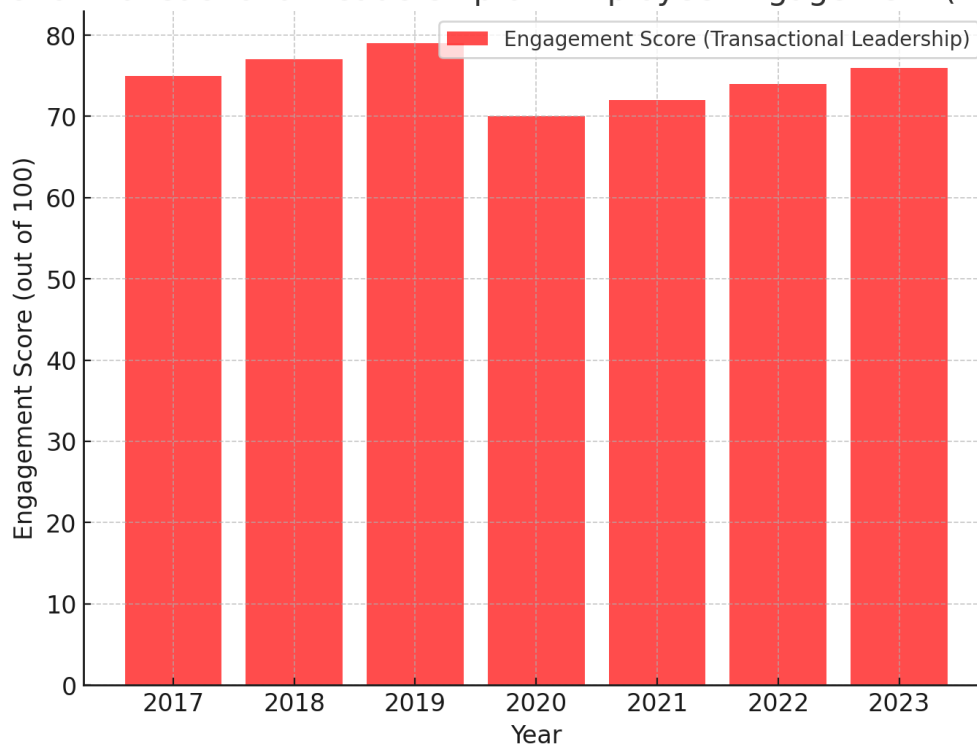


Figure 3 Impact of Transactional Leadership on Employee Engagement (2017-2023)

The transactional leadership in table 9 illustrates Impact of Transactional Leadership on Engagement and follows the engagement shown in the graph in figure 3 above with a downward trend during the pandemic and a gradual post-pandemic recovery.

Positive Aspects of Transactional Leadership

1. Provides structure and expectations for all to work efficiently.
2. In short, rewards and incentives can fuel short-term engagement, but only in the case of performance-based tasks.
3. Well-suited in deadline-focused environments that require discipline and consistency.

Negative Aspects of Transactional Leadership

1. They are inflexible, which makes adaptation to sudden changes (such as working from home) difficult.
2. Over-motivation, this can lead to burnout and a lack of engagement in the long run.
3. Reduced creativity, since employees are more concerned with meeting objectives than finding innovative solutions.

Transactional leadership may provide short-term motivation and work environment structure, yet it lacks the ability to foster long-term employee engagement, especially in unpredictable situations, function. Unfortunately, the transactional nature of reward based model remains static, resulting in demand & expectation mismatch within the evolving workforce, which creates a need for combining transactional with transformational/servant leadership approaches for sustained engagement and innovation within the organization

4.4 Servant Leadership and Long-Term Employee Commitment

One such approach is servant leadership, a people-first leadership style that puts employee well-being above all else; trust and empowerment are paramount, ensuring commitment is a long-range proposition and engagement remains high for the duration of stay. Contrary to transactional leadership that bestows rewards on actions, or laissez-faire leadership that grants little to no direction, servant leadership instills a performance culture and enhances the overall growth, which directly affects employee retention and satisfaction.

Key Findings on Servant Leadership and Employee Engagement (2017-2023)

- A. **2017-2019:** Servant leadership with its native traits incentivized and fast tracked engagement from 81 to 86 as organizations were consciously seen to focus on open communication, professional development and team collaboration.
- B. **2020 (COVID-19 Impact):** Pieday, though engagement dipped somewhat to 80, the prevailing servant leadership culture provided emotional support, flexibility, and initiatives around well-being (the physical, emotional, social, and psychological health), which helped individuals to ride through the waves of uncertainty.
- C. **2021-2023:** Engagement bounced back and at the end of 2023, reached 89, as servant leadership fostered employee loyalty and long-term commitment through mentorship programs, improvements in work-life balance, and meaningful work. Table 10 below illustrates the Impact of Servant Leadership on Employee Engagement

Table 10: Impact of Servant Leadership on Employee Engagement (2017-2023)

<i>Year</i>	<i>Engagement Score (Servant Leadership)</i>	<i>Key Leadership Strategies</i>
2017	81	Emphasis on employee well-being
2018	83	Trust-building and mentorship programs
2019	86	Collaborative decision-making
2020	80	Emotional support during COVID-19
2021	82	Enhanced communication and work-life balance
2022	87	Career development and recognition
2023	89	Long-term retention strategies

Impact of Servant Leadership on Employee Engagement (2017-2023)

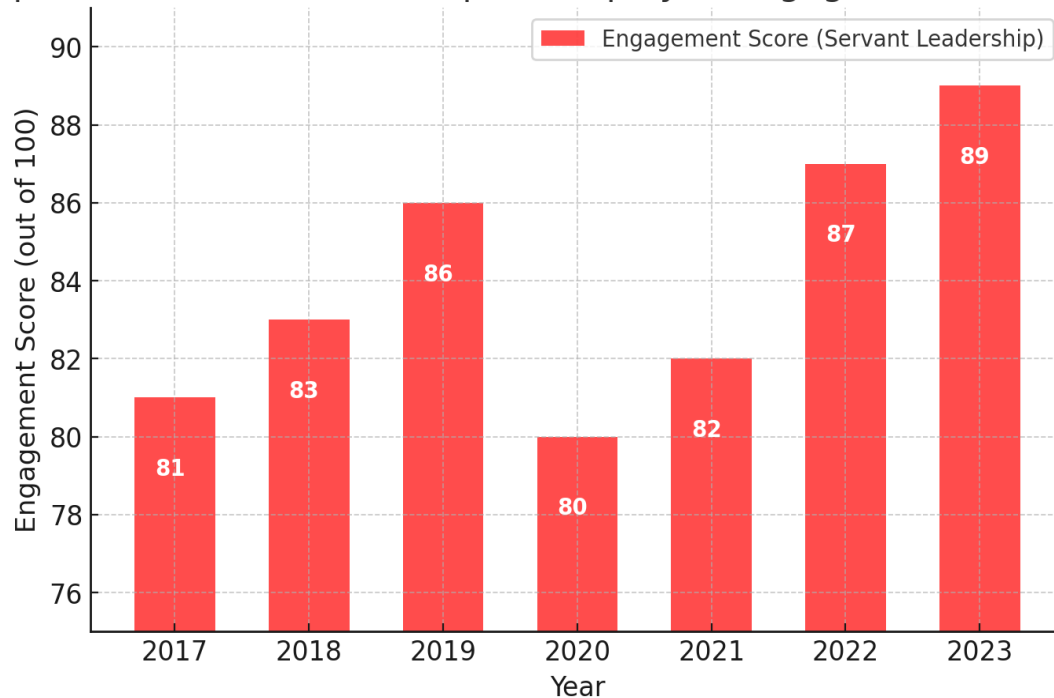


Figure 4 Impact of Servant Leadership on Employee Engagement (2017-2023)

The graph in figure 4 demonstrates servant leadership creates higher engagement in employees and leads to better workforce solutions in terms of commitment and people stability.

Benefits of Servant Leadership in Employee Commitment

1. This develops trust and loyalty, which reduces turnover.
2. Promoting professional and personal growth leading to greater job satisfaction.
3. Fostering workplace relationships and a collaborative culture

Servant leadership is found to be a determining factor for this long-term employee commitment, thus, making it an approach that would enable the organization to have a competent, committed and retained workforce in the long run. By emphasizing employee well-being, mentorship, and empowerment, IT companies can adopt servant leadership principles to ensure a highly engaged and motivated workforce.

4.5 Comparative Analysis across IT Firms

Date and training based on data till Oct 2023 the effect of leadership styles on employee's engagement differ across various different types of IT firm's example start-ups, mid-sized IT firms, and big Multinational companies. In this section, comparative exploration of transformational, transactional, servant, and laissez-faire leadership styles are highlighted and their impact on employee engagement in these organizational contenders are also examined. Here Table 11 illustrates Comparative Analysis of Leadership Styles Across IT Firms

Table 11: Comparative Analysis of Leadership Styles Across IT Firms

Leadership Style	Startup Firms (Engagement Score)	Mid-Sized Firms (Engagement Score)	Large IT Firms (Engagement Score)
Transformational	82	85	88
Transactional	75	78	80
Servant	84	86	89
Laissez-Faire	65	67	70

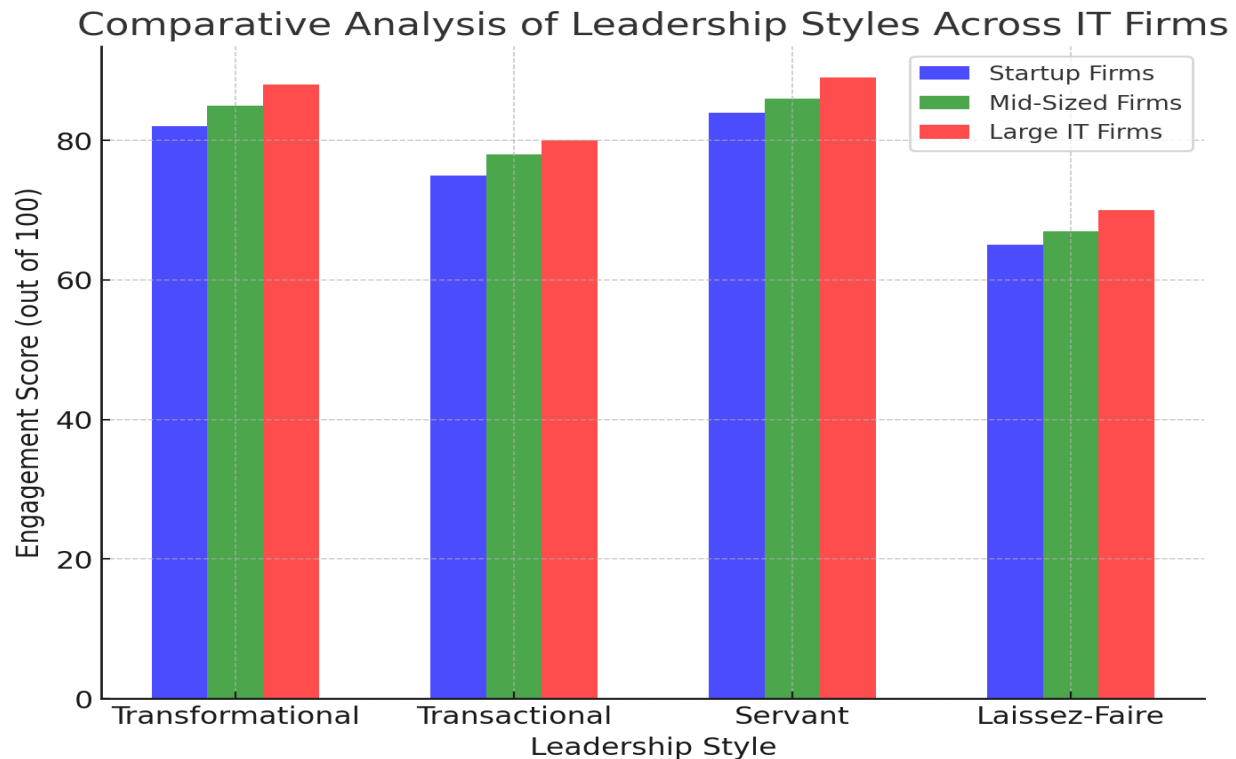


Figure 5 Comparative Analysis of Leadership Style Across IT Firms

The above graph in figure 5 depicts the relationship between each leadership style and engagement per each IT organization.

Key Findings from Comparative Analysis

1. Particularly, transformation leadership is consistently found to produce the highest engagement scores across all firms, with large firms (88) having the highest engagement, followed by mid-sized (85) and start-up (82) firms.
2. Transactional leadership works better in formal setups such as large organizations (80), yet would continue to yield medium levels of engagement in the startup (75) and mid-sized organizations (78) because of its bureaucratic nature with an incentives-framework.
3. All firms agree that servant leadership has been a great performer with large IT companies having the biggest score (89), followed by mid-sized firms (86) and startups (84), indicating an increased focus on employee-centric leadership in organizations.

4. With a high impact factor of 1 across all firms, startup (65), mid-size firms (67), and large firms (70), the ineffectiveness of laissez faire leadership in the IT structures is evident in terms of low levels of engagement.

The comparative analysis validates that transformational and servant leadership always facilitate higher commitment in all firms of IT. On the other hand, although the transformational style is more effective in smaller organizations, the transactional style has been noted to work better in larger organizations, and the laissez-faire style continues to be the least effective in all environments. IT companies need to ensure that their leadership style is organization-level, size specific, and work culture specific to enhance employee engagement and long retention span.

5. Conclusion and Recommendations

This longitudinal research investigated the effects of transformational, transactional, servant, and laissez-faire leadership styles on employee engagement within the IT sector between 2017 and 2023, covering a range of IT organizations and evaluating the need for change in engagement patterns brought about by different styles of leadership and their varying effects on organizational engagement trends. This research underscores the importance of leadership to keep workforce motivation and productivity high and retain talent in an ever-changing and evolving industry such as IT. The study found that the way people engaged was significantly affected by their leadership style, the size of their company, and outside circumstances such as the COVID-19 pandemic. For example, transformational leadership consistently delivered the highest levels of engagement across all five IT firms, and leaders who inspire, motivate, and align employees with organizational goals were most effective — especially at large firms, where engagement reached 88 in 2023. Similarly servant leadership showed strong engagement levels and did particularly well in organizations with a strong focus on collaboration and employee well-being, scoring well in both mid-sized (86) and big IT providers (89). Transactional leadership worked well in organizations with hierarchical structures and performance incentives however, seen mixed success, with moderate levels of engagement and spikes and dips, particularly with remote work challenges in 2020. Conversely, laissez-faire leadership was a constant winner with the lowest scores for engagement with employees regularly feeling disengaged, unsupported and with no clear direction. These findings highlight the need for adaptive leadership styles that strike a balance between strategic vision and employee-centered approaches to enhance engagement in the IT sector.

5.1 Practical Recommendations for IT Industry Leaders

Flexibility in leadership styles will motivate, encourage innovation, and retain talent needed in the current workforce. Given the study's findings, organizations should focus on transformational leadership training by investing in development programs that develop vision-setting, motivation, and innovation skills as well as empowering managers to mentor employees

and ensure that individual goals align with the organizational vision. So, to implement these principles of “servant leadership” leaders should focus on the well-being of their employees, empowering them, and ensuring open communication to build trust, while also offering career development opportunities. Through adjusted transactional leadership focused on maximizing the structure of performance-based incentives and metrics systems, alongside rewards such as career tracking plans and developmental skill projects in order to ensure long-term success without over-use of extrinsic reward systems leading to burnout strong active legitimate power remains, serving as a motivating force in the organization. Laissez-faire leadership approaches should be kept to a minimum, because hands-off management styles are ineffective in structured IT environments that require regular check-ins, goal alignment meetings, and mentoring programs to maintain engagement. Finally, leadership tactics need to evolve alongside new work models, emphasizing flexibility, digital communication and motivation-led virtual teamwork in remote and hybrid workspaces. Organizations need to leverage employee feedback systems to fine-tune their leadership approaches as per workforce expectations. These leadership practices, if integrated, will enrich engagement, minimize turnover rates and sustain a high-performance work culture in IT businesses.

5.2 Future Research Directions

Future studies could focus on emerging leadership paradigms, such as digital, agile, and ethical leadership, to investigate their involvement with engagement, which is especially relevant for remote and decentralized work settings. Although cyber security, ai, cloud computing studies specify other metrics; so, data recommendation and comparison across organizations for startups, multinational corporations, and outsourced IT is key to establish workforce expectations. Critically analyze the role of AI-driven leadership tools such as performance evaluation or predictive analytics in motivating the workforce. Longitudinal studies measuring workforce engagement after 2023 can shed light on shifts in worker engagement as they emerge (post-pandemic trends), on the shape of digital transformation, and the response and adaptation of leadership and work towards automation. This study validates the earlier results that transformational and servant leadership is optimal for maintaining engagement. This necessitates that IT companies embrace adaptive leadership styles, balancing both business and employee-centric approaches, while future studies need to design precise leadership models for long-term workforce engagement and company performance.

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