Modeling Transformational Leadership in Creating Organizational Commitment Considering Uncertainty

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Abstract

Leaders, for success, need the ability to behave and choose the right and appropriate role for the situation. To achieve this, leaders require cognitive and behavioral flexibility. A leader needs the ability to understand the needs and goals of individuals and the ability to adapt their personal perspective to the group's activities. The significance of leadership in maintaining and developing organizational culture has been emphasized by successful authors. Leadership has both implicit and explicit effects on culture through language, structure, values, and behavior, operating at both group and individual levels. Bachtal suggests that leadership relationships are crucial for changing the values, beliefs, and attitudes of followers, especially considering their research on the importance of transformational leadership in highly dynamic environments. Due to the long-term psychological effects on the behavior and attitudes of followers, which create a culture that is adaptable to change, they emphasize the importance of transformational leadership in highly dynamic environments.

Keywords: *Transformational Leadership, Organizational Commitment, Uncertainty*

1. Introduction

One of the recent perspectives on leadership, a subject extensively researched in the early 1980s, is the transformational leadership approach. This approach is part of the "new leadership" model. As implied by its name, transformational leadership is a process that transforms individuals and intertwines them with values, ethics, and long-term goals. It involves evaluating followers' motivations, satisfying their needs, and engaging in entirely humanistic behavior and a visionary leadership style. Transformational leadership encompasses a broad spectrum, from individual-level efforts to influence followers at each level to extensive endeavors to change entire organizations and even entire cultures. While transformational leadership plays a central and fundamental role in expediting change, followers and leaders are inexplicably connected in the process of transformation. The emergence of transformational leadership as a significant approach to leadership began with the sociopolitical impact of James MacGregor Burns, titled "Leadership" (Burns, 1978). Burns attempts to connect the roles of leadership and followership, noting leaders who could tap into followers' motivations to better achieve both followers' and leaders' goals. According to Burns, leadership is entirely distinct from exerting power, as it considers it inseparable from followers' needs.

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Given the points mentioned above, this study aims to identify the components of transformational leadership, explore the effects of this type of leadership, and ultimately focus on one of its effects, which is creating organizational commitment among employees. Considering the abundant research on the separate examination of the components of transformational leadership, particularly in relation to organizational commitment, this study recognizes the need to explore the relationship between these two variables. Therefore, the investigation of the relationship between these two variables concerning each other is essential, and this research addresses that necessity (Hasanzadehfar,2019).

In today's dynamic organizational environment, the pursuit of success is more crucial than ever, necessitating organizations to move towards transformation. Transformational leadership, as one of the leadership paradigms, plays a vital role in enhancing organizational performance in the turbulent contemporary environment. It has the ability to inspire employees and foster an organizational culture where ethical norms are perceived as behavioral standards, anticipating environmental changes. Transformational leaders create a vision of a bright and needed future. The capabilities of transformational leaders to execute appropriate transformative processes for organizations are essential for responding swiftly to changing competitive conditions (Hasanzadehfar,2023).

Successful organizations require leaders with depth of insight, proper direction, and a defined path for the organization's future, instilling the motivation for transformation in employees. The transformational leadership style focuses on characteristics and processes essential for the success of change implementation (Dehler, 2002). Therefore, the most important and sensitive roles in organizations are played by organizational leaders. If organizational leaders can create conditions that activate the potential forces of employees, undoubtedly, the organization's performance will improve, necessitating employee empowerment. Additionally, for leaders to effectively fulfill their assigned tasks, employees must feel that their managers are trustworthy, which is a challenge in our country's organizations at the grassroots level. Therefore, the decline of trust in the organization is one of the issues that leads to unmotivated and indifferent employees, hindering the implementation of effective plans.

Considering the demotivation and job dissatisfaction in organizations, trust and empowerment, being effective attributes in transformational leadership, have received significant emphasis. It appears that developing a transformational leadership model can be an appropriate solution to address these two fundamental dilemmas in organizations. The existence of a trusting atmosphere leads to information sharing, performance improvement, employee motivation, job satisfaction, enhanced employee morale, and increased innovation.

2. Leadership

2.1. Leadership Styles

The way a leader utilizes influence to achieve goals is referred to as leadership style. In other words, leadership style denotes the leader's approach to their role and employees. Traditionally, two perspectives on leadership styles exist.

2.2. Authoritarian and Traditional Style - Task-Oriented

In this style, the manager or leader instructs subordinates on what tasks to perform and how to execute them. This style is characterized as authoritarian or directive.

2.3. Democratic or Relationship-Oriented Style

In this style, the leader or manager shares leadership responsibilities with subordinates, involving them in planning and execution. This style is also known as employee-oriented or relationship-oriented.

Leadership styles fundamentally reflect the manager's attitude toward their role and employees. The authoritarian style is task-focused, where the leader dictates tasks and methods. On the other hand, the democratic style, also called employee-oriented or relationship-oriented, involves sharing leadership responsibilities and engaging subordinates in planning and execution.

3. Organizational Commitment

3.1. Concept of Commitment

Managers constantly strive to maintain control over their employees in various aspects. Managers often believe that when someone is employed, they should fully accept all the conditions of that organization. Some managers insist that employee satisfaction can be increased through rewards and encouragement. Perhaps, some managers believe that employees are their subordinates and must accept their directives. While today, due to the financial pressures employees face, more attention is given to their economic concerns, employees gradually lean towards meaningful work and desire more job independence. This way, they feel a sense of value. One of the most significant motivational issues, extensively studied in industrial and organizational psychology in the West, is organizational commitment.

In the context of the studied topic, a research conducted by Wang et al. (2014) titled "Hospital Industry: Effects of Creative Role Identity, Creative Self-Efficacy, Job Complexity" integrates transformational leadership, creativity, and socio-cognitive theories. This study explores the relationships between transformational leadership, creative role identity, creative self-efficacy, creativity, and job complexity. The structural equation modeling (SEM) with a launch estimate has been utilized based on data from 395 supervisor employees in Taiwanese tourist hotels. The results indicate that transformational leadership of supervisors positively influences creativity and creative self-efficacy. Additionally, creative role identity can moderate the relationship between transformational leadership and employees' creative self-efficacy. While creative role identity and creative self-efficacy can moderate the relationship between transformational leadership and creativity, job complexity moderates the relationship between transformational leadership and creative role identity, as well as the relationship between creative role identity and creative self-efficacy. This study incorporates the findings into the context of the hospital.

3.2. Comparative Leadership Styles: Transformational vs. Transactional

Dai and colleagues (2013) conducted a study comparing two leadership styles, transformational and transactional, to determine which style works better. Their case study focused on employees of international tourist hotels in Taipei. The objective was to examine the relationships between transformational leadership, transactional leadership (TFLs/TSLs), organizational justice, organizational trust, organizational commitment, and organizational citizenship behavior (OCB) in the context of international tourist hotels in Taipei. The aim was to create a comprehensive model of TSL/TFL for human resource management and investigate which leadership style is more effective for the hotel industry. They distributed 700 questionnaires among employees of eight international hotels, receiving 358 valid responses.

The research findings revealed that TFL/TSL had a positive and significant relationship with distributive justice. Managers, using TFL, could enhance employee trust. TFL had a positive impact on organizational commitment through distributive justice and organizational trust. Distributive justice had a direct positive effect on trust. TSL contributed to the creation of organizational commitment through distributive justice. Organizational commitment and distributive justice had a positive relationship. Interestingly, TSL had a significant negative impact on organizational commitment. Trust could lead to organizational commitment, and trust and organizational commitment had a positive correlation with OCB. The results can serve as a basis for improving human resource management in collective cultures such as China.

3.3. Transformational Leadership and Job Engagement: An Intermediary for Meaningfulness in Work

Qadi and colleagues (2013) aimed to explore the relationships between transformational leadership and job commitment through estimating meaningfulness in work. The study involved 530 full-time employees in Australia. The structural equation modeling results indicated that transformational leadership was effective in determining job commitment. The direct relationship between transformational leadership and job commitment was moderated by employees' perception of the meaningfulness of work. Industrial reports suggest a global increase in non-committed employees, causing nations to incur billions of dollars in lost productivity. This article provides a model that can help reduce these losses in human resource management and assist in developing training programs to promote transformational leadership behaviors in the workplace. The study also examines these theoretical relationships in the Australian community.

These research studies contribute valuable insights into the effectiveness of leadership styles in different organizational contexts and industries, providing practical implications for human resource management practices.

3.4. The Relative Impact of Complementary Leadership Behaviors

In a study titled "The Relative Impact of Complementary Leadership Behaviors," Piccolo (2012) aimed to investigate the compatibility between the transformational-transactional leadership model and the two-factor model of the Ohio State University. Despite conceptual overlaps between these models, systematic research exploring their alignment or assessing their relative merits is lacking. The study employed two primary investigations:

a) Examination of the key factor structures of both models.
b) Estimation of the relative contributions of these models to two organizational outcomes: employee job satisfaction and perceptions of leadership effectiveness.

While the analysis indicated a meaningful association between transformational leadership and consideration (P=0.74) and initiating structure (P=0.50), the results from the initial two studies supported the independence of these leadership dimensions. Moreover, dominant analyses (Bass, 1993) highlighted the significance of transformational and transactional leadership in predicting employee job satisfaction and leadership effectiveness ratings. When controlling for other effects, both models demonstrated incremental validity. Overall, the results suggested that dimensions of both models are crucial predictors of employee outcomes.

3.5. Investigating the Effects of Work-Life Conflict between Transformational Leadership, Job Satisfaction, and Employees' Physical Health

Moneer and colleagues (2012) conducted a study titled "Investigating the Effects of Work-Life Conflict between Transformational Leadership, Job Satisfaction, and Employees' Physical Health." The research aimed to explore the relationship between transformational leadership and job satisfaction and the physical health of healthcare employees. The importance of work-life balance for job satisfaction and health among healthcare employees is well-acknowledged. The study investigated whether transformational leadership is related to employees' physical health, considering perceptions of work-life conflict as a mediator. The research involved a longitudinal study of elderly Danish healthcare employees who completed a questionnaire initially and were followed up over 18 months (N=188).

The results demonstrated a direct association between transformational leadership and perceptions of work-life conflict, job satisfaction, and physical health. Work-life conflict mediated the relationship between transformational leadership and health but not job satisfaction. According to the findings, transformational leadership can enhance perceptions of work-life balance and the health of employees.

4. Impact of Non-Transformational and Transactional Leadership Styles on Employee Job Satisfaction in the Hospitality Industry in Germany

In another article addressing the impact of non-transformational and transactional leadership styles on employee job satisfaction in the hospitality industry in Germany, Radfelder and colleagues (2012) focused on examining the influence of various leadership behaviors of hotel managers on employee job satisfaction, aiming to fill gaps in leadership studies, particularly in the German context. The study utilized the Mutual Leader Behavior Model (Bass, 1985) as the research framework. A quantitative survey method was employed to assess the impact of leadership on employee job satisfaction, with data collected from 101 hotel employees in Germany.

The collected data underwent analysis through correlation analysis, multiple regression analysis, and MANOVA in three stages. The results demonstrated a strong influence of leadership behavior on the job satisfaction of hotel employees in Germany. In this regard, the impact of transformational leadership on employee job satisfaction significantly differed from non-transformational and transactional behaviors. Previous studies have indicated the influence of culture on appropriate leadership styles, and this study further extended this concept to a new context (Germany), contributing to the research literature on leadership in the hospitality industry.

5. Conceptual Model

Based on the aforementioned background, the following conceptual model is presented. This research is, in terms of its objective, applied. Applied research is conducted on specific organizational issues, and its overarching findings can be beneficial for addressing the questions posed by airport managers. The research objective is to understand complex behavioral patterns through studying the homogeneity between these patterns and variables assumed to have a relationship. This method is particularly useful when the goal is to discover relationships between variables that have not been extensively researched (Delaavar, 2001).

The statistical population consists of a desirable number of elements, each possessing a distinct characteristic. The characteristic, known as the distinguishing feature, should be common among all elements of the statistical population and differentiate the statistical population from others (Azar & Momeni, 2005). The statistical population of the current study comprises 201 employees of the country's airports.

At the forefront of planning any study or research is the question of the required sample size. This question is crucial, and the sample size should never be underestimated. Selecting a sample larger than necessary for achieving the desired results leads to a waste of resources, while overly small samples often yield scientifically useless results (Azar & Momeni, 2005).

The population size in the current research is 201 individuals, with 36 being high-ranking employees, managers, and deputies of airports, and the rest being employees. The data were collected through accessible, face-to-face questionnaires.

Data analysis involves two dimensions. Firstly, from a descriptive statistical perspective, an examination of the sociodemographic characteristics of the sample members is conducted. Gender, age, education, and work experience of the respondents are among the aspects covered in the descriptive statistics section. Secondly, inferential statistical analysis is employed for data interpretation. To explore the relationships between research variables, an initial reliability test was performed on the research criteria using confirmatory factor analysis. Subsequently, based on the structural equation modeling in the Matlab environment, the research model was implemented.

Structural equation modeling is an analytical procedure that has gained widespread application in recent decades, indicating a convergence of relatively independent research tools in psychology, biology, sociology, econometrics, and many other sciences (Hooman, 2005).

6. Fuzzy System

A lot of research has been done with fuzzy. This introduction delves into three distinctive articles exploring innovative applications of fuzzy logic in diverse domains. In the first study, Bakhtiari (2019) investigates the "Speed Control of The Interior Permanent Magnet Synchronous Motor Over a Wide Range" by employing a Fuzzy Logic Controller. Published in the Transactions on Machine Intelligence, this research explores advanced control systems for optimizing the performance of synchronous motors.

Moving into the realm of human resources, Ramezani, Ariakia, and Rajabzadeh Ghatari (2022) present a novel approach in "Two-Dimensional Model Designing to Evaluate Employees' Performance Using Fuzzy Approach." Featured in the Transactions on Data Analysis in Social Science, this article explores the integration of fuzzy logic into performance evaluation models, aiming to enhance the precision of employee assessments.

In the third article, Asgari, Sargazi, and Haji Molana (2021) delve into operational processes in "Material requirements planning with a fuzzy model." Published in the Transactions on Data Analysis in Social Science, their research explores the application of fuzzy models to improve the precision and efficiency of material planning processes. These three articles collectively showcase the versatility and impact of fuzzy logic in different domains, from motor control to human resource management and operational planning.

A fuzzy system has been implemented using MATLAB. The designed fuzzy system has two inputs: transformational leadership and innovation. Each input involves idealistic behavior and idealistic features, inspiring mental encouragement, attention, and personal considerations in transformational leadership. For the second input, innovation, three inputs are considered.
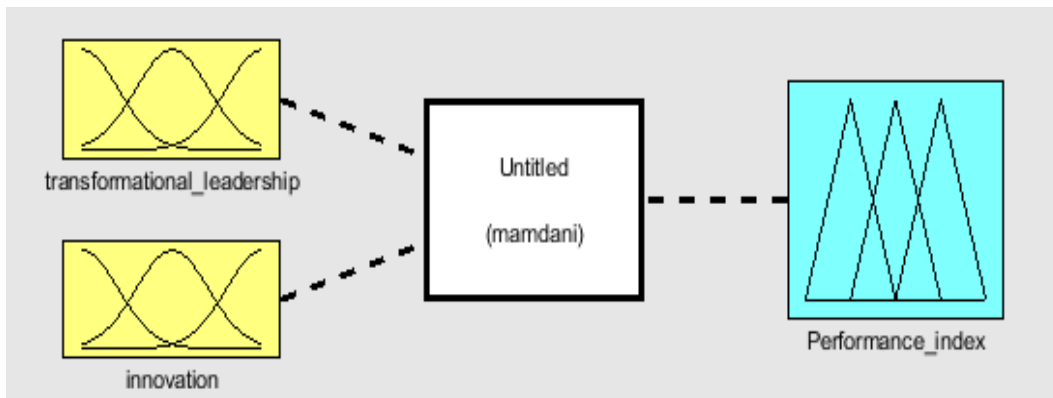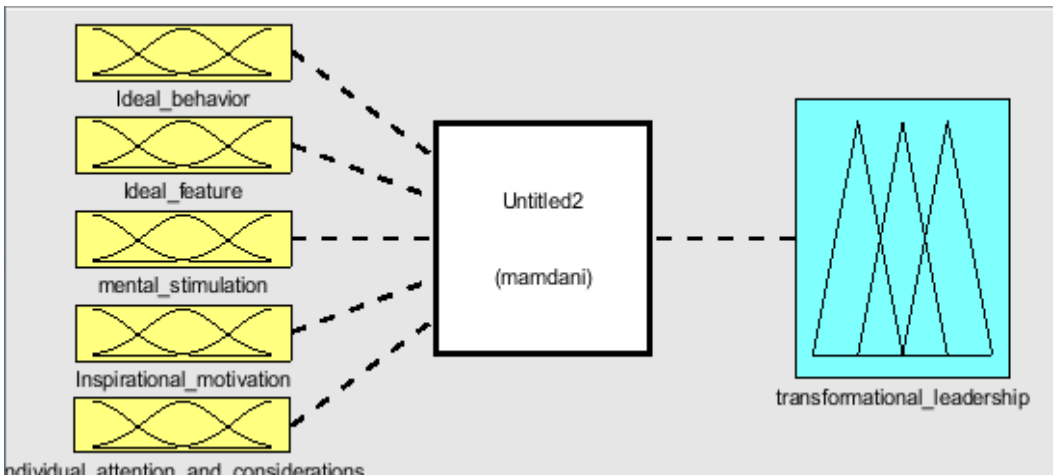

Figure1: Fuzzy Model for the System.

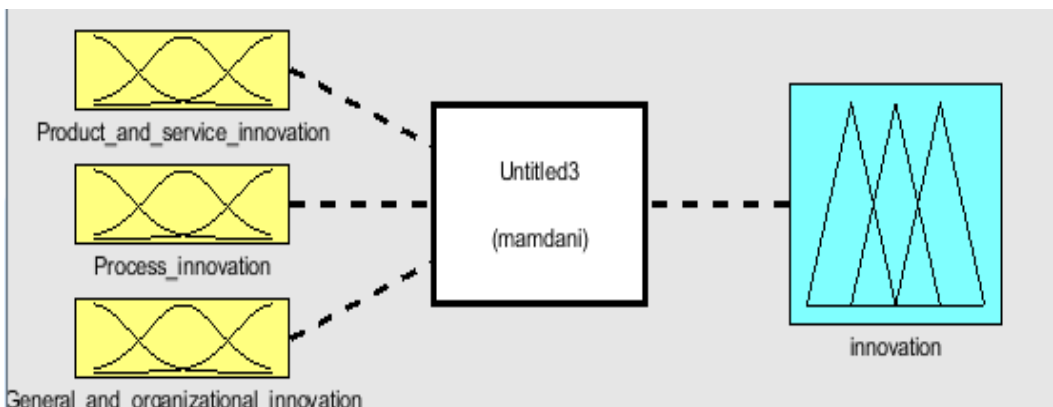**Figure 2:** Fuzzy Model for Transformational Leadership.

Figure 3: Fuzzy Modeling for Innovation Input.

7. Conclusion

The population of this research included managers, deputies, and employees of Bushehr airports. Separate questionnaires were distributed to managers and deputies and to employees. The sample size consisted of 165 employees and 36 managers.

In this study, organizational innovation and its dimensions were considered. Various theories emphasize the necessity of organizational innovation for better organizational performance. According to marketing theories, organizations that focus on rapid innovation gain a larger market share, products, revenue, and profitability. Strategic theories highlight that organizations adopting the first innovation have the capability to create isolated mechanisms. As innovative knowledge is not readily available for competition, these mechanisms maintain marginal profits and enable organizations to achieve significant and important profits.

Additionally, resource and capability theories state that capabilities, resources, and technology need to accept innovation that facilitates external imitation. This allows companies to maintain their competitive advantage and achieve better organizational performance. Therefore, a positive relationship exists between organizational innovation and organizational performance, or between different dimensions of innovation (product and service innovation, process innovation, and overall organizational innovation) and organizational performance.

Innovations with higher value, imitable but imperfect innovations, and rare innovations (such as technological innovations) require a higher level of performance. Organizations with more innovation receive better responses from the environment, obtain facilities needed to enhance performance more easily than other organizations, and also stabilize their competitive advantage. Promoting innovation does not negatively impact organizational performance. Innovation, as one of the dimensions of entrepreneurship, has a direct impact on organizational performance.

8. Analysis and Findings

In examining the gender distribution among employees, 43% of respondents were male, and 54% were female. Among managers, 56% were male, and 34% were female.

Regarding the educational background of employees, 10% had a diploma or higher diploma, 80% had a bachelor's degree, and 9% had a master's degree. Among managers and deputies, 53% had a bachelor's degree, and 46% had a master's degree.

Analyzing the age variable among employees revealed that 32% were between 20 and 30 years old, 45% were between 30 and 40 years old, and 22% were between 40 and 50 years old. Among managers, 12% were between 20 and 30 years old, 37% were between 30 and 40 years old, 43% were between 40 and 50 years old, and 6% were over 50 years old.

Examining the work experience of employees showed that 24% had less than 5 years of experience, 55% had 5 to 10 years, 16% had 10 to 15 years, and 4% had more than 15 years of experience. Among managers, 15% had less than 5 years of experience, 25% had 5 to 10 years, 40% had 10 to 15 years, and 18% had more than 15 years of experience.

From the research results, it can be inferred that the motivational and visionary features have the most significant impact on organizational performance. This suggests that managers who are optimistic about future success, forward-looking, prepare employees for future goals, guide

them, and sacrifice their interests for individuals' benefits can increase employee satisfaction. Consequently, organizational performance will improve. It is advisable for managers to strengthen other components of transformational leadership to enable self-growth and development.

The results of the study indicate a meaningful relationship between transformational leadership and organizational performance, with a stronger and more significant impact on innovation, as evidenced by the path coefficient. This result aligns with findings from other research studies. Additionally, the statistical comparison of each component of transformational leadership with organizational performance showed that organizational performance is more associated with the motivational and inspirational component.

Considering the critical role of appropriate leadership styles in managing contemporary organizations, especially those with non-financial objectives focusing on serving the public, it is essential for managers and leaders of such organizations to choose an appropriate leadership style.

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