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Linking Transformational Leadership with Organizational Performance: A PLS-SEM Integrated Model Examining the Mediating Role of Innovative Work Behavior and Motivation

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ABSTRACT

This study investigates the impact of transformational leadership on organizational performance, employee motivation, and innovative work behavior in Saudi Arabia, aligned with Saudi Vision 2030. Research was conducted in Riyadh, Jeddah, and Medina, focusing on large companies with over 500 employees. Data from 214 responses were analyzed using Smart PLS 3.5, employing descriptive statistics, Cronbach's alpha, and composite reliability analysis. Hypotheses were tested using PLS and bootstrapping techniques, and the model was evaluated with Blindfolding in PLS-SEM. Results supported all hypotheses. Transformational leadership positively impacted motivation, innovative work behavior, and organizational performance. Innovative work behavior also positively influenced organizational performance, as did motivation. The study found that innovative work behavior and motivation partially mediate the relationship between transformational leadership and organizational performance, emphasizing their importance. This research underscores the role of transformational leadership in enhancing Saudi organizations' competitiveness and global reputation while aligning with Saudi Vision 2030's goals. It contributes to understanding leadership's impact on employee behavior and organizational outcomes, supporting the nation's aspirations. Finally, this study conducted in Saudi Arabia explores the influence of transformational leadership on organizational performance, innovation, and motivation. It confirms positive relationships between these variables, highlighting the importance of transformational leadership in achieving organizational goals and aligning with Saudi Vision 2030.

Introduction

Leadership is a critical aspect of managing human resources, and various types of leadership are necessary to fulfill different roles. Among the different types, transformational leadership is considered one of the most influential because it can motivate and empower followers to achieve their goals (Poturak et al., 2020). Strukan et al. (2017) posit that this kind of leadership is built on creating a vision that stimulates a sense of crisis among followers, which can encourage voluntary changes in values and behavior. Companies are increasingly concerned with both financial and non-financial performance, and in some cases, improving organizational performance can be a challenge. One possible solution is to focus on promoting innovative work behavior among employees. Enhancing employee motivation can significantly impact business performance and stimulate innovative work behavior, even with a minimal headcount (Lawler et al., 2018). Therefore, employee motivation is a crucial driving force for improving business performance because it is likely to be directly related to performance quality and may catalyze innovative working behavior. Transformational leadership is vital in human resource management, and promoting innovative work behavior through employee motivation can improve business performance.

The Saudi Arabian government is aiming to boost the manufacturing and services industries in the country through Vision 2030, a comprehensive plan for economic development. The goal of the program is to transform Saudi Arabia into a prominent industrial and logistics hub by leveraging the mining and energy sectors and prioritizing local content and the Fourth Industrial Revolution. The program aims to enhance the economic impact of the targeted sectors, promote their growth and leadership, and achieve the overall goal of Vision 2030 (Saudi Vision 2030, 2021).

Chuan and Teck Khun (2022) proclaimed that there has been several past research studies have highlighted the significance of effective leadership and its impact on both financial and non-financial performance. According to Uzonwanne's (2014) study, the Saudi Arabian government has acknowledged the significance of enhancing leadership capabilities of its citizens for both public and private sector roles and has taken steps to encourage this through various initiatives. Many companies are investing heavily in leadership development programs for their employees in order to improve overall team effectiveness. Bhatti and Alyahya's (2021) study found that transformational leadership has a significant impact on both financial and non-financial performance and can play a critical role in problem-solving within organizations. Hence, transformational leadership style can also drive positive change in both the manufacturing and service sectors.

Research Gap

This research seeks to enhance existing theories by investigating the linkages among transformational leadership, motivation, innovation, and organizational performance. The study extends the current literature by exploring the intermediary roles of motivation and innovation in the relationship between transformational leadership and organizational performance, specifically within the manufacturing and service sectors. Improving organizational performance is considered a critical solution for firms to survive and develop in a sustainable way. Motivation and Innovation are vital for the survival and competitiveness of organizations in these sectors, given the constant demand and the need for creative

solutions. Hence, organizations in these sectors require adept leaders to navigate swift changes and address global challenges, ensuring they remain resilient and competitive in the marketplace.

Leadership significantly impacts organizational success by fostering self-confidence, motivation, and commitment among members. As renowned by Direction (2015) and (Dewi et al., 2022), motivation plays a crucial role in achieving employee performance, influencing individuals to engage in activities and work that lead to goal satisfaction. Recognizing the importance of motivation, researchers argue for exploring the relationship between organizational performance and transformational leadership to enhance the innovative work behavior of millennial employees. This research aims to understand how transformational leadership, coupled with motivation, can positively influence the performance and innovative contributions of the next generation in the workforce.

Strukan et al. (2017) identifies a critical research gap in understanding the impact of transformational leadership on organizational performance in Saudi Arabia. Moreover, discrepancies in findings on factors mediating or moderating the link between transformational leadership and innovative work behavior exist (Afsar & Umrani, 2020; Rabiul & Yean, 2021). Some studies concentrate on mediating elements such as work engagement (Ali et al., 2022; Gameda & Lee, 2020) or knowledge sharing (Sudibjo & Prameswari, 2021). The call for additional empirical studies persists to substantiate claims about the association between transformational leadership and innovative work behavior. A comprehensive investigation into both mediators and moderators as intervening variables in this relationship is essential for a nuanced understanding (Alheet et al., 2021). The deficiency extends to exploring the mediating roles of innovative work behavior and motivation in this relationship. There has been a dearth of research investigating the connection between TL and certain aspects of firm performance in terms of operational and financial performance (Son et al., 2020). To address this problem, this study was conducted to clarify the different effects of transformational leadership on particular parts of organizational performance, namely non-financial and financial performance. The findings of the paper are, therefore, expected to generate a more valuable understanding that can better explain the differences in several aspects of performance among enterprises (Le & Le, 2021).

Manufacturing and Service Sector in Saudi Arabia

According to the Saudi Arabia market study (2023), the country aims to become the manufacturing hub for the MENA region, with a focus on a range of industries including oil and gas, minerals, mining, logistics, agricultural chemicals, food, and beverages. In order to keep up with global technological advancements such as the Internet of Things, robots, augmented reality, virtual reality, 3D printing, and artificial intelligence, the Saudi industrial sector is striving to incorporate these cutting-edge technologies. The Saudi Industrial Development Fund (SIDF) has played a significant role in the country's industrialization since its establishment in 1974 by offering favorable loans to manufacturing pioneers. However, with the introduction of Saudi Vision 2030 and the National Industrial Development and Logistics Program, SIDF's priorities have shifted towards the goal of investing in new industrial sectors and reaching an investment of SR1.7tn (\$453.2bn) by 2030 (Charting the growth of Saudi Arabia's industrial capacity, 2020).

The term ‘service sector’ refers to businesses that produce services rather than physical goods, and it is a crucial and rapidly growing economic sector in many countries. This sector encompasses various industries, including hospitality, transportation, storage, information and communications, financial and insurance, business, social and personal, and government services. According to Arab News (2021), the service sector contributed a record 56.7% of Saudi Arabia's GDP, or SR1.47 trillion (\$392 billion) in 2020, and grew by 4.7% in the following year, as reported by Abdullah (2022). The service sector's contribution to GDP continued to increase in 2022, exceeding one trillion dollars, with a share of 31.5%, as stated by Essaid (2023). With the completion of significant tourism and entertainment projects in the coming years, Saudi Arabia is expected to benefit from its investments in the services industry.

The Kingdom of Saudi Arabia aims to establish a robust and thriving private sector through its ambitious Saudi Vision streamlining. Its extensive plans include the development of mega-projects to produce raw materials that create new markets for innovative industries and services while also promoting the adoption of new digital and automated technologies in production processes and service delivery to support existing private industries (Saudi Arabia Market Study, 2023). The National Industrial Development and Logistics Program (NDLIP) is aligned with this vision and aims to transform the Kingdom into a global logistics hub and a powerhouse in various industries and services by maximizing the potential of local content. The NDLIP plays a crucial role in driving economic diversification towards sustainable growth by providing an attractive environment for investors worldwide (Saudi Vision 2030, 2021).

Theoretical Framework and Hypothesis Development

Impact of Transformational Leadership on Motivation

Initially, the idea of transforming leadership was put forward by Burns (1978). Afterward, Bass (1985) extended this concept and explained that transformational leadership motivates employees to work devotedly and achieve organizational objectives. Subsequently, transformational Leadership Theory posits that leaders who inspire and motivate followers through charisma, intellectual stimulation, individualized consideration, and inspirational motivation can significantly impact employee motivation (Bass & Avolio, 1995). The transformational leadership theory has been developed very well (Grant, 2012) and provided pronounced insights regarding the effect of transformational leaders on organizations. Additionally, Maslow's Hierarchy of Needs (1943) suggests that transformational leaders address higher-order needs like self-actualization, fostering intrinsic motivation. Furthermore, Social Exchange Theory (Blau, 1964) explains how transformational leaders create a positive work environment, leading to a reciprocal exchange of trust, loyalty, and increased motivation among employees. The Self-Determination Theory (Deci & Ryan, 1985) is also relevant, emphasizing the importance of autonomy, competence, and relatedness in fostering intrinsic motivation. By integrating these theories, this framework elucidates the complex interplay between transformational leadership and motivation, highlighting the role of inspirational communication, empowerment, and the fulfillment of psychological needs in enhancing employee motivation within organizational settings.

Impact of Transformational Leadership on Innovative Working Behavior

Empirical research has demonstrated that transformational leadership, which attempts to increase followers' self-expectations, create a sense of vision and mission, and assist followers in emphasizing rational solutions, is a vital driver of employee creativity and innovative work behavior (Grošelj et al., 2020, Jyoti & Dev, 2015). Leaders who have a transformational mind is more effective to enhance subordinates' innovative behavior compared to transactional leadership (Afsar et al., 2017; Lee et al., 2020). The leadership paradigm of the organization's leadership has been shifted to a transformational style (Rosenbach et al., 2018) and transformational leadership indicates that the leaders who follow transformational leadership are knowledgeable and able to lead themselves and their followers in causing modifications in the organization (Northouse, 2018). Moreover, transformational leaders are putting more effort into meeting global competition's enhancing needs (Asrar-ul-Haq & Kuchinke, 2016). Leaders with a transformational mindset tend to change individuals, organizations or teams by modeling and communicating a vision and motivating followers to obtain the vision (Tabassi et al., 2017). Hence, the main driver of Innovative work behavior of employee individual innovation is known as transformational leadership, which enhances the organizations' overall innovation (Wallace et al., 2016).

According to Social Cognitive Theory (SCT), human behavior can be induced by the interaction of internal and external influencers (Bandura, 1986). From an employee's perspective, internal factors entail an individual's innovative qualities and capability to engage in innovation, while the latter refers to the environment and leadership influence (Hoang et al., 2022). Considering the SCT, this study focuses on transformational leadership as an environmental determinant regarding employees' innovative behavior in the manufacturing sector of a developing country. Another theory that could explain the effect of transformational leadership on employees' innovative behavior is the Job Demands–Resources (JD-R) model (Bakker & Demerouti, 2017). Based on this theory, job resources (such as transformational leadership) motivate employees and lead to positive work outcomes (such as innovative behavior) (Schaufeli & Taris, 2014).

Impact of Transformational Leadership on Organizational Performance

As one of the powerful leadership styles, TL is positively associated with the managerial performance and organizational performance of organizations (Le et al., 2018). Numerous prior studies have explained the positive TL-organizational performance relationship (Nguyen et al., 2017; Son et al., 2020). Indeed, as claimed by Bass (1985), organizational performance is supported and enhanced by the capabilities of inspiring and persuading transformational leaders toward employees. Empirical research by Masa'deh et al. (2016) showed that TL is positively related to both job performance and firm performance. Li et al. (2019) justified that TL is more likely to cultivate innovative work behavior and positively affect employees' job performance. Recently, Son et al. (2020) argued that TL is positively related to the job performance of managers and organizational performance because transformational leaders tend to prompt employees toward the attainment of the desired result with or without rewards. Their findings revealed that TL is significantly associated with financial and operational performance.

The impact of transformational leadership on organizational performance is elucidated by multiple theories. Transformational Leadership Theory (Bass & Riggio, 2006) emphasizes leaders' inspiration, motivating employees toward innovative work behavior. Self-determination Theory (Deci & Ryan, 1985) posits that addressing psychological needs enhances motivation and innovation. Path-Goal Theory (House, 1971) aligns with transformational principles, emphasizing leaders clearing paths and providing support. Social Exchange Theory (Blau, 1964) elucidates the positive social exchanges transformational leaders foster. Understanding the complex interplay of these theories provides a comprehensive framework for exploring how transformational leadership influences organizational performance.

The selection and utilization of the specified variables for constructing a conceptual model and its subsequent evaluation depend on the underlying theoretical framework. The theoretical foundation guides the incorporation of specific variables, ensuring the model aligns with established principles. The evaluation process entails scrutinizing the model's coherence and validity, affirming its efficacy in accurately representing the theoretical constructs and their interrelationships.

Literature Review

Transformational Leadership

Today, transformative leadership remains pertinent, as it embodies enduring qualities that can flexibly address evolving circumstances. This is particularly crucial in the technology industry, where agility and swiftness are essential for success. This leadership style urges leaders to serve as authentic role models, motivating their followers to replicate their genuine leadership, ultimately enhancing motivation, morale, and performance. It achieves this by aligning individuals' strengths with their tasks and forging a connection between their identity and the organization's mission and values (Mansor & Hosen, 2019; Yousaf, 2017).

Relationship of Transformational Leadership on Motivation

A recent investigation by Vinh et al. (2022) accentuates the link between transformational leadership and its diverse facets, such as inspirational communication, intellectual stimulation, personal recognition, and a positive vision, and their impact on motivation. This study emphasizes the importance of leaders with a strong vision and effective communication skills in inspiring their followers through inspirational motivation. This approach involves setting high standards, sharing an optimistic vision for the future, and infusing the present with a deeper purpose, ultimately cultivating motivation and commitment among followers by instilling a sense of meaning and purpose in their work. This leadership style encourages followers to rise to challenges, reach their full potential, and fosters a positive outlook on the future while boosting confidence (Masood & Afasar, 2017).

Leaders capable of reshaping their organizations with a forward-looking vision can achieve this by effectively expressing their vision and empowering their team to transform it into reality. Within contemporary organizational and management research, a key objective is to delineate the boundaries of phenomena under examination, including transformational leadership. In this study, transformational leadership is regarded as an adaptable attribute to

focus on its influence on workplace motivation and productivity (Top et al., 2020). Based on the above literature, the following hypothesis was framed.

H1a: *Transformational leadership directly and significantly impacts motivation.*

Relationship of Transformational Leadership on Innovative Working Behavior

Scholars explored how transformational leadership influences employees' innovative behavior (Kucharska & Rebelo, 2022; Lim & Moon, 2022). However, the question of how leadership may impact employee innovative behavior has not received the academic attention required (Aryee et al., 2012). Thus, an essential question for leadership research and practice is how leadership can support employees' innovative behavior by enhancing their motivational states. Mansor and Hosen (2019) observed that transformational leadership spurs creativity and innovation by fostering an environment for information sharing, leading to positive results in team settings. Masood and Afsar (2017) recommend transformative leadership for fostering innovation, and enhancing market position, productivity, and morale. Managers should embody this style for optimal organizational outcomes. In addition, it recommends evaluating the influence of transformational leadership on innovation, considering organizational size and culture. This leadership style significantly fosters innovation, as research, particularly in organizational contexts, encourages and rewards innovative ideas (Yousaf, 2017).

The results highlight a significant positive link between transformational leadership and employees' innovative work behaviors, consistent with earlier studies (Grošelj et al., 2020; Løvaas et al., 2020). This emphasizes the vital role of transformational leaders in encouraging the implementation of new ideas by employees. Effective leadership can inspire and motivate employees, emphasizing the importance of leaders who prioritize the well-being and concerns of their employees in fostering an environment conducive to innovative work behaviors (Karimi et al., 2023). Despite the preceding discussions, limited research explores how transformational leadership influences employees' innovative work behaviors in developing nations, particularly within the manufacturing and service sectors. This study seeks to provide conclusive empirical evidence by exploring the relationship between transformational leadership and innovative work behaviors among manufacturing employees, introducing specific hypotheses to enrich the existing literature.

H2b: *Transformational leadership directly and significantly influences innovative working behavior.*

Relationship of Transformational Leadership on Organizational Performance

Para-González et al. (2018) stress that the evaluation of an organization's performance is an intricate and multifaceted process comprising six criteria: effectiveness, efficiency, quality, productivity, innovation, and profitability. These standards are highly dependent on the situation and context. Chuan and Teck Khun's (2022) study revealed that financial performance can be assessed through indicators like profitability, sales turnover, market value, and debt ratios. Robust financial performance often reflects wise leadership decisions,

as financial metrics are known to be reliable lagging indicators. Conversely, non-financial metrics such as customer satisfaction, organizational learning, and internal processes can act as leading predictors of an organization's performance success.

To achieve success and longevity, organizations must prioritize their performance. Effective leadership plays a vital role in shaping the performance of any organization. In recent years, transformational leadership has gained significant traction as the preferred approach for enhancing organizational performance. According to Badubi (2017), transformational leadership has the potential to bring about positive changes and improve organizational performance. Arif et al. (2018) state that the implementation of transformational leadership is a difficult task for public sectors globally, and the ineffectiveness of public sector leadership is strongly associated with problems related to organizational performance. Organizational performance is closely linked to transformative leadership. The standards of the organization will rise as a result of this kind of leadership's ability to inspire its followers to work harder and smarter while also increasing their level of dedication and self-assurance. If a company adopts transformational leadership, it will be able to maximize its efficiency.

A recent study by Afsar and Umrani (2020) found that transformative leadership significantly positively affects financial performance. Similarly, Strukan et al. (2017) noted the positive impact of transformative leadership on financial output. In a study by Egeci (2020), the influence of transformative leadership on organizational performance in 15 Turkish manufacturing firms was investigated through a survey of 302 employees. The results indicated that transformational leadership has a significant positive impact on organizational performance in these firms. Additionally, the study suggests that the relationship between transformational leadership and organizational performance is mediated by organizational culture. These findings support the notion that transformational leadership can be an effective approach for enhancing organizational performance in the context of Turkish manufacturing firms. The following hypothesis is framed as follows:

H1c: *Transformational leadership directly and significantly impacts organizational performance (financial and non-financial)*

Relationship of Transformational Leadership on Innovative Working Behavior, Motivation, and Organizational Performance

A recent investigation by Mahmud et al. (2022) uncovered that 41% of the most notable research on leadership in recent years has concentrated on transformative leadership. This leadership approach has been observed to foster innovation and creativity within organizations by placing a premium on employee morale and productivity. Additionally, the study determined that transformational leadership exerts a noteworthy influence on innovative behavior and positively affects followers by safeguarding their motivation from decline.

Chuan and Teck Khun (2022) indicated that prior research consistently reveals a connection between transformational leadership and enhanced non-financial performance. The leader's capacity to inspire and motivate their followers is positively correlated with individual performance. Moreover, all studies in this domain have consistently identified a

positive link between transformational leadership, motivation, and non-financial performance. Nurfaizi and Muafi (2022) have also established that transformational leadership yields a significantly positive impact on motivation, which, in turn, significantly and favorably influences non-financial performance, with motivation serving as an intermediary for the beneficial impact of transformational leadership on non-financial performance. Furthermore, this style of leadership exhibited by transformational managers significantly affects both innovation and a firm's financial performance. The following hypotheses are framed based on the above review literature:

H2: *Innovative work behavior mediates the relationship between transformational leadership and organizational performance (financial and non-financial)*

H3: *Motivation mediates the relationship between transformational leadership and organizational performance (financial and non-financial)*

Innovative Work Behavior

Xu and Suntrayuth (2022) posit that Lewin's theory of innovative work behavior underscores the interconnection between people's actions and their surrounding context. Contrary to the belief that innovation solely results from major breakthroughs, even minor adjustments can yield substantial effects. IWB involves a set of behavioral tasks aiding employees in conceiving, promoting, and executing new ideas (Al-Ghazali & Afsar, 2021; Zhang & Yang, 2021). It encompasses deliberate endeavors to introduce novel services/products or innovative work methods by effectively developing, promoting, and implementing ideas (Kmieciak, 2021; Zreen et al., 2021). This definition emphasizes that IWB extends beyond innovation, although its core component involves generating valuable and innovative ideas (Mansoor et al., 2020).

Relationship of Innovative Work Behavior on Organizational Performance

In the contemporary business landscape, where various market forces interact swiftly, organizations must continuously explore innovative methods to establish and maintain a competitive advantage that results in improved financial and non-financial performance. While organizational performance is a broad and complex concept, this text focuses solely on its linking with innovations and the manufacturing sector. Guzman et al. (2018) argue that there is a scarcity of analyses and discussions on innovation and organizational performance in this business size. Conversely, Exposito and Sanchis-Llopis (2019) note extensive literature on the topic in recent decades. However, some studies yield mixed and inconclusive findings due to the resource intensity of innovation, limiting the manufacturing sector's innovative capacity (Sok et al., 2016).

Innovative work behavior is vital for organizational sustainability (Jankelová et al., 2021). Zhang and Bartol (2017) identified a positive correlation between IWB, customer satisfaction, and financial performance. Moreover, IWB has been associated with enhanced organizational adaptability, which is essential for companies to remain competitive in an ever-evolving business environment (Jiménez-Jiménez & Sanz-Valle, 2011). Badubi (2017) clearly indicated that employees' innovative behavior positively impacts workplace

performance, fostering market competitiveness, increased satisfaction, and a broader customer base. It enhances resource efficiency, a proactive business approach, and adaptability. In addition, research indicates that the innovation approach relies on strategic orientation, market awareness, and commitment. Implementing innovation can enhance capabilities but may incur additional costs (Kim & Park, 2017). A recent study by Jankelová et al. (2021) proclaimed that innovative work behavior has a positive and significant impact on organizational performance. This suggests that the very innovative behavior of employees, supported by the company's management, has a positive impact on the company's results. Innovative work behavior includes employee activity at all stages, from the generation of ideas through their promotion to implementation. This finding is consistent with the research of Honyenuga et al. (2019) and Shanker et al. (2017), which identified Innovative work behavior as a significant variable in support of organizational performance. The following hypothesis was constructed as below:

H4: *Innovative working behavior directly and significantly impacts organizational performance (financial and non-financial)*

Motivation

According to Badubi (2017), Abraham Maslow's hierarchy of needs, developed in 1943, proposes that motivation originates from the fulfillment of an individual's basic physiological needs. As these needs are met, individuals can then focus on other areas of life, such as relationships, friendships, self-worth, and personal growth. Maslow's hierarchy of needs is the foundation for many theories that aim to explain job satisfaction. In the context of teaching, educators have unique demands that must be met, including the need to feel valued and appreciated by their peers, superiors, and parents while also addressing their basic physiological and safety requirements.

Reeve (2018) defines motivation as a mental state that prompts individuals to take action. While instinct drives people's behavior, motivation propels individuals towards their objectives and keeps them on track. In addition, the factors that trigger and maintain an effort toward achieving goals are recognized as part of motivation. However, it is not always easy to discern these motivational factors clearly, and it is often necessary to infer the reasons behind individuals' actions based on their observable behavior.

Relationship of Motivation on Organizational Performance

A recent study (Xu & Suntrayuth, 2022) states that employees who perceive their contributions are valued and respected by their organization are more committed to their jobs. This sense of worth and appreciation motivates them to perform to the best of their abilities. When all team members work collaboratively and productively, the overall output of the company increases, resulting in improved performance and quality. Consequently, employees can handle greater responsibilities without diminishing their productivity levels. This inspires staff to become more engaged in their work, leading to increased motivation and attraction of new talent. As a result, businesses benefit from higher levels of productivity and a more committed workforce.

Osabiya (2015) contends that assigning additional responsibilities to workers will not cause a decline in their productivity levels. By virtue of their enthusiastic efforts, motivated employees can drive the company towards achieving higher levels of quality and productivity. This change can significantly affect productivity by enhancing employee motivation and attracting top talent to the organization.

In a study by Kalogiannidis (2021), it was emphasized that employee motivation has a significant impact on organizational performance. The authors analyzed data from 147 employees working in the hospitality sector and found that intrinsic motivation (such as the desire for self-improvement and personal growth) had a more substantial impact on organizational performance than extrinsic motivation (such as monetary rewards and bonuses). When organizational performance improves, the company can provide the worker with far more, which serves as a propellant for motivation (Dike, 2019).

A very recent study by Akerele (2023) stated that while financial incentives are important motivators, it is essential to recognize the multifaceted nature of motivation. Organizations should also consider non-monetary factors such as growth opportunities, empowerment, and work-life balance to foster employee motivation. A comprehensive approach that combines both financial and non-financial incentives will yield the most significant impact on organizational performance outcomes in terms of financial and non-financial. Hence, we hypothesized the following:

H5: *Motivation directly and significantly impacts organizational performance (financial and non-financial)*

Method

Target Population and Sampling

The target population comprises all individuals working in the manufacturing and services sectors within the cities of Riyadh, Jeddah, and Medina in Saudi Arabia. Additionally, because the researchers concentrated on these three cities, they represent our target audience as accurately as possible because they represent various people from various cultural backgrounds. As a result, the authors provided 250 questionnaires to employees in the manufacturing and services sector and 214 were used for data analysis.

Data Collection Method

The current research followed an empirical approach to collect the data. In this study, the researchers aimed to investigate the impact of transformational leadership on organizational performance through innovative work behavior and motivation among employees of large companies with over 500 employees. The data was collected between December 2022 and February 2023 using self-reported questionnaires distributed in major Saudi cities, namely Riyadh, Jeddah, and Medina. The Snowball method was used to select participants, and the questionnaire was written in English and translated into Arabic. The study distributed 385 questionnaires, and a total of 250 valid responses were collected a month later. Demographic details show Gender ($M = 1.68$), Nationality ($M = 1.11$), Experience ($M = 3.10$), Qualification ($M = 2.77$), Age ($M = 3.64$), and the participants' average age was 25.50 years, and approximately 1.64 of them had significant experience in transformational leadership.

To ensure fairness in the responses, the survey had an accompanying letter that explained the study's purpose and guaranteed participants that their answers would be kept anonymous and that their involvement was optional. After excluding incomplete or incorrect questionnaires, a total of 250 valuable surveys were gathered. A moderate response rate would indicate to participants the importance and quality of the study. If they thought the research was meaningful and worth contributing to, they were more likely to complete the questionnaire. Ultimately, the researchers used partial least squares software (Smart PLS version 3.5) to analyze the 250 complete responses.

Measurement of Variables

To create the variable scales, the researchers reviewed pre-existing surveys that had been validated. The survey was divided into five sections, with the initial part consisting of demographic questions about age, gender, experience, and education level. The survey scales for the three constructs were comprised of 43 items in total. A five-point Likert scale was used to evaluate the results, with response options ranging from strongly disagree (1) to strongly agree (5).

The study employs various measurement tools to assess four different constructs. The first construct, transformational leadership, is measured using a 7-item scale adopted from Carless et al. (2000). If a Cronbach's alpha score of .70 and above indicates an internally consistent result (Ayarkwa et al., 2022), this study's result was .80. The scale demonstrates good reliability ($\alpha = .87$) and validity (AVE = .56).

The study adopts a 13-item scale developed by Gkontelos et al. (2022) to measure innovative work behavior. This scale includes measures of opportunity exploration, idea generation, idea realization, and idea promotion. It assesses how desirable innovative work behavior is (e.g., "Questioning the effectiveness of the current way of working."). Five items were excluded due to low factor loading. The scale demonstrates good reliability ($\alpha = .82$) and validity (AVE = .58).

The study also measures motivation using a 10-item scale adopted from Mustaffa (2012), which includes intrinsic and extrinsic motivation subscales. Five key phrases were selected to measure well-being, salary, payment, and job satisfaction. Intrinsic motivation is measured using an adapted 3-item scale that assesses how happy the employee feels about helping colleagues solve problems. Extrinsic motivation is measured using a 2-item scale, which assesses how much the work means to the employee. Three items were excluded due to low factor loading. The scale demonstrates good reliability ($\alpha = .80$) and validity (AVE = .50).

Finally, the study measures organizational performance using a 13-item scale adapted from Miah (2018). The scale includes 6 items related to financial performance, such as return on assets, and 7 items related to non-financial performance, such as employee commitment. Three items related to financial performance were excluded due to low factor loading. The scale demonstrates good reliability ($\alpha = .91$) and validity (AVE = .55).

Overall, the study employs reliable and valid measurement tools to assess various constructs related to organizational behavior, including transformational leadership, innovative work behavior, motivation, and organizational performance.

Reliability and Validity

The authors conducted a pilot study to evaluate the feasibility, clarity, and relevance of the questionnaire before administering the full survey. Pre-tests were utilized to ensure the measures were valid, comprehensive, and accurate. Cronbach's alpha (α) was employed to evaluate the internal consistency of the research and the reliability of the instrument used during the pilot study. The results of the pilot study, which included 45 participants, indicated that all constructs had Cronbach's alpha values higher than the acceptable threshold of .70 (Ayarkwa et al., 2022). These results demonstrated the consistency and dependability of the scales utilized in this study. Furthermore, the pilot study's findings indicated that the suggested questionnaires were easy to understand and could be completed within 7-8 minutes.

Analytical Approach

The authors utilized PLS-SEM version 3.5 to analyze the collected data. This method has gained widespread recognition across various fields such as human resource management, strategic management, accounting, operations management, management information systems, marketing, supply chain management, hospitality, and tourism. According to Hair et al. (2019), PLS-SEM is particularly useful for analyzing complex models involving latent variables, which offer high predictive potential. In evaluating the structural model, PLS-SEM allows for examining latent constructs through path analysis and emphasizes the explanation of variance in dependent variables. The analysis was carried out using two different models, namely, the measurement model and the structural model. The measurement model establishes the connection between latent and observable variables, while the structural model examines the relationships between latent variables. The authors identify and remove outliers with a p-value of .001 or higher. The descriptive statistics, including the mean, standard deviation, and bivariate Pearson correlation for each variable, were presented in Table 1.

Table 1

Descriptive Statistics & Bivariate Pearson Correlation

Demographic Details	Frequency	Percentage%
Nationality		
Saudi	191	89.3
Non-Saudi	23	10.7
Gender		
Male	70	32.7
Female	144	67.3
Age		
Less than 25 years	25	11.7
25-30years	48	22.4
31-35years	37	17.3
36-40years	36	16.8
41-45years	27	12.6
46-50years	24	11.2
Above 50 years	17	7.9
Experience		
Less than one year	36	16.8
1-5years	64	29.9
6-10years	37	17.3
11-15years	23	10.7
16-20years	27	12.6
Above 20 years	27	12.6
Qualification		
Master	66	30.9
Bachelors	97	45.3
Diploma	51	23.8

	Descriptive		Bivariate Pearson Correlations			
	<i>M</i>	<i>SD</i>	1	2	3	4
Transformational Leadership Behavior (TL)	4.551	.39	1			
Innovative work behavior (IWB)	4.478	.40	.59**	1		
Motivation	4.367	.50	.56**	.65**	1	
Organizational Performance (Financial and Non-Financial)	4.349	.54	.43**	.60**	.70**	1

Note 1: **. Correlation is significant at the 0.01 level (2-tailed).

The demographic details of the surveyed population reveal a diverse and dynamic composition. Nationality plays a significant role, with 89.3% being Saudi, while 10.7% represent the non-Saudi demographic. Gender distribution indicates composed participation, with 67.3% female and 32.7% male respondents showcasing noteworthy gender inclusivity. Age-wise, the survey captures a wide range of demographics. A youthful segment, those under 25 years old, constitutes 11.7%, while the 25-30 years and 31-35 years brackets contribute 22.4% and 17.3%, respectively. The workforce is well-represented in the middle age categories, ranging from 36 to 50 years, and a mature workforce above 50 comprises 7.9%. The distribution of professional experience is evenly spread, with 16.8% having less than one year of experience, 29.9% in the 1-5 years range, and 12.6% each in the categories of 6-10, 11-15, and 16-20 years. Remarkably, a diverse educational background is evident, with 30.9% holding a Master's degree, 45.3% holding a Bachelor's degree, and 23.8% possessing a Diploma.

Result

To assess the relationships between the latent variables in the measurement model, descriptive statistics, Cronbach's alpha, and composite reliability analysis were employed. All variables were found to have a strong positive correlation with each other. Moreover, the overall reliability of the measures exceeded the acceptable threshold of .70.

The authors ensured the distinctiveness of all the constructs by examining convergent and discriminant validities. As suggested by Hu and Bentler (1998), the Average Variance Extracted (AVE) values for all constructs were greater than .50, meeting the criteria for convergent validity. According to Peterson (1994), low inter-item correlation implies that the items come from different domains, and deletion is necessary to minimize errors and increase reliability. Shavelson and Muthén (1989) recommended eliminating items with a loading lower than .40. After deleting items IWB1, IWB2, IWB3, IWB5, IWB7, IWB13, M1, M6, M8, M10, OPFP1, OPFP3, and OPF5, all Cronbach's alpha coefficients exceeded the recommended threshold of .60 as shown in Table 2.

Table 2*Assessment of Reflective Measurement Model*

Constructs	Items	Type	Loadings	α	rho-A	CR	AVE	VIF
Transformational Leadership	TLB1	Reflective	.72	.87	.87	.90	.56	17
	TLB2		.75					18
	TLB3		.77					18
	TLB4		.74					17
	TLB5		.74					18
	TLB6		.74					17
	TLB7		.77					19
Innovative Work Behavior	IWB4	Reflective	.67	.82	.83	.86	.58	15
	IWB6		.68					15
	IWB8		.77					18
	IWB9		.74					16
	IWB10		.69					15
	IWB11		.69					15
	IWB12		.60					13
Motivation	M2	Reflective	.75	.80	.80	.86	.50	16
	M3		.72					15
	M4		.72					16
	M5		.76					17
	M7		.69					15
	M9		.60					14
Organizational Performance	OPFP2	Reflective	.74	.91	.91	.92	.55	25
	OPFP4		.76					22
	OPFP6		.74					21
	OPNP1		.78					22
	OPNP2		.79					23
	OPNP3		.72					20
	OPNP4		.76					21
	OPNP5		.68					23
	OPNP6		.70					25
	OPNP7		.73					24

Note. OPFP denotes financial performance; OPNP denotes Non-Financial performance α = Cronbach alpha; CR = composite reliability; AVE = average variance extracted; VIF = variance inflation factor

The authors conducted two tests to assess discriminant validity: the Fornell-Larcker's (1981) criterion and the Heterotrait-Monotrait (HTMT) criterion. According to the Fornell-Larcker criterion, each construct's square root of AVE (average variance extracted) should be greater than the correlation between the construct and other latent variables. The authors found that all constructs met this criterion, indicating acceptable discriminant validity. The HTMT test was also performed, and the results were in line with the recommended criteria, with all values below the maximum allowed value of .85. Thus, the authors confirmed that the constructs were distinct from each other and had adequate discriminant validity. These results are summarized in Table 3, Fornell-Larcker Criterion (Discriminant Validity) and HTMT Criterion and Correlation.

Table 3*Fornell-Larcker Criterion (Discriminant validity) and HTMT Criterion and Correlation*

	Fornell-Larcker Criterion				Hetro-Trait Mono -Trait (HTMT) Criterion			
	OP	IWB	Motivation	TL	OP	IWB	Motivation	TL
OP	.74							
IWB	.60	.76			.67			
Motivation	.70	.65	.71		.81	.80		
TL	.42	.60	.57	.75	.47	.70	.68	

Note. The bold numbers in diagonal in Fornell -Larcker section are square root of AVE of each construct, and other numbers are correlation between constructs; OP is inclusive of OPFP and OPNP denotes Financial and Non-Financial Performance; IWB denotes Innovative work behavior; M denotes Motivation and TL denotes Transformational Leadership

The authors adhered to the recommendations of Hair et al. (2019) and used various criteria to evaluate and predict the impact of exogenous factors on endogenous variables. These criteria included Q² (greater than .00), NFI (greater than .90), and the SRMR score (less than .08). The endogenous variables in Table 4, namely OP (Q² = .27, Q² effect = medium), IWB (Q² = .20, Q² effect = medium), and Motivation (Q² = .16, Q² effect = medium), all had good Q² values, indicating a medium effect size and indicating that the model accurately captured the empirical data and had good predictive capacity (Henseler et al., 2009). Additionally, the SRMR value (.07) and NFI value (.96) confirmed the model's good fit.

Table 4

Model Assessment

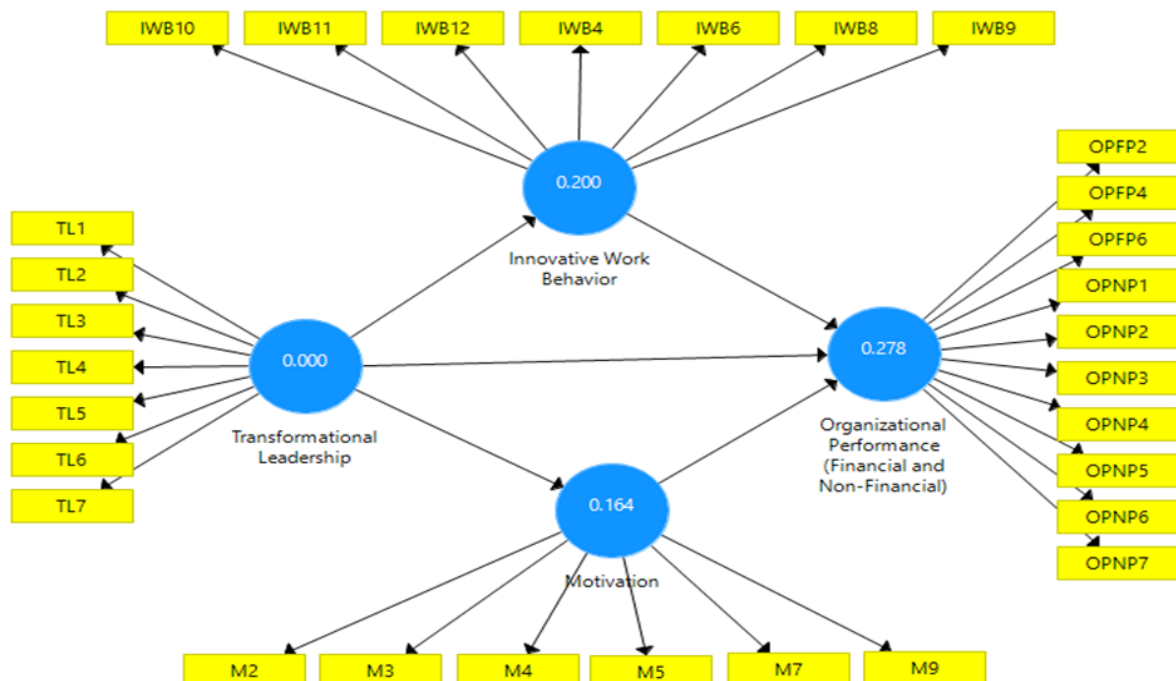
Variables	SRMR	NFI	SSO	SSE	Q ²	Q ² Effect
TL	.07	.96				
OP			2300.00	1659.56	0.27	Medium
IWB			1610.00	1287.21	0.20	Medium
Motivation			1380.00	1154.08	0.16	Medium

Note. SRMR (Standardized Root Mean Square Residual); NFI (Normed Fit Index); SSO (Sum of Squares of Observations); SSE (Sum of Squares of Errors)

The Blindfolding effect, performed in PLS-SEM to evaluate the model, is illustrated in Figure 1. It shows the strong positive relationship between transformational leadership and various outcomes, including financial and non-financial organizational performance, innovative work behavior, and motivation.

Figure 1

Blindfolding Effect

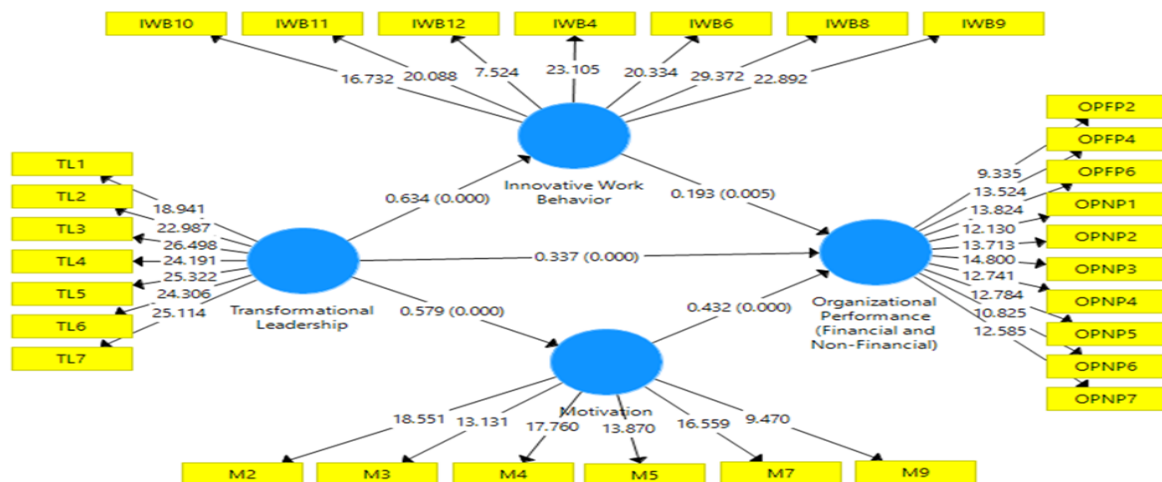


Reflective Model and Hypotheses Testing

To test the proposed hypotheses, both the PLS algorithm and bootstrapping technique were employed in SmartPLS 3.5. Five hypotheses were fully tested, including H1 with its sub-hypotheses (H1a, H1b, and H1c), comprising five direct and two indirect (mediating) hypotheses. These results are presented in Figure 2 and Table 5.

Figure 2

Result of Structured Model



The results from Figure 2 and Table 5 show that all proposed hypotheses were supported. The model indicates a strong and significant positive relationship between the independent variables, dependent variables, and mediators. Transformational leadership has a direct and significant positive impact on motivation ($\beta = .57$, $t = 11.06$, $p = .000$), innovative working behavior ($\beta = .63$, $t = 14.47$, $p = .000$), and organizational performance (financial and non-financial) ($\beta = .33$, $t = 4.20$, $p = .001$). Innovative working behavior also has a direct and significant positive impact on organizational performance ($\beta = .19$, $t = 2.79$, $p = .005$), while motivation has a direct and significant positive impact on organizational performance (financial and non-financial) ($\beta = .43$, $t = 5.64$, $p = .000$). The results also show that innovative work behavior and motivation partially mediate the relationship between transformational leadership and organizational performance (financial and non-financial). The direct and indirect effects are both significant, indicating partial mediation.

Table 5

Assessment of Hypothesis Testing

Hypothesis	Direct / Indirect Effect	M	SD	t	p	Bias	Bias Corrected		Hypothesis Supported
							5.00%	95.00%	
H1a	TL -> Motivation	.58	.05	11.06	.000	.00	.47	.67	Supported
H1b	TL -> IWB	.63	.04	14.47	.000	.00	.54	.71	Supported
H1c	TL -> OP	.34	.08	4.20	.000	.00	.18	.50	Supported
H2	TL -> IWB -> OP	.12	.04	2.75	.006	.03	.04	.20	Supported
H3	TL -> Motivation -> OP	.25	.05	5.04	.000	.00	.21	.41	Supported
H4	IWB -> OP	.18	.06	2.79	.005	.00	.07	.33	Supported
H5	Motivation -> OP	.43	.07	5.64	.000	.00	.28	.57	Supported

Discussion

The manufacturing sector faces a rapidly evolving landscape marked by intensified competition, shifting customer preferences, and the relentless march of technological

progress. These ever-changing dynamics necessitate a manufacturing organization's ability to exhibit agility, adaptability, and innovation. Within this challenging environment, transformational leadership emerges as a vital asset, offering the essential guidance, support, and inspiration required for organizations to survive and thrive. In the manufacturing and services sectors, transformational leaders serve as catalysts for inspiring and motivating employees to unleash their creative potential. Their influence encourages the generation of novel ideas, the development of innovative processes, and the creation of groundbreaking products or services. By fostering a culture of innovation, transformational leaders embolden employees to experiment, take calculated risks, and learn from their missteps. This not only results in enhanced operational efficiency but also elevates productivity and product/service quality.

Additionally, transformational leadership exerts a constructive impact on employee motivation. Through its provision of meaningful work, recognition, and avenues for personal and professional growth, it kindles higher job satisfaction, an increased commitment to the organization, and an all-encompassing improvement in individual and collective performance. Transformational leadership stands as a linchpin in enabling manufacturing organizations to navigate the turbulent tides of change, engendering innovation, motivation, and, ultimately, prosperity in this ever-evolving business realm.

The primary objective of this study was to examine how transformational leadership impacts organizational performance through its influence on innovative work behavior and motivation. This research employed a descriptive and quantitative approach. Transformational leadership, as defined in this context, pertains to leaders who foster a strong sense of shared purpose and purposeful action within their teams. These transformational leaders understand the significance of both innovative work behavior and organizational performance.

According to the results, transformational leadership positively affects organizational performance via innovative working behavior, organizational performance positively affects employee's motivation via innovative working behavior, and innovative working behavior positively affects organizational performance. According to (Egeci, 2020), transformational leaders can create a positive and supportive work environment that encourages employees to be creative and innovative, leading to improved organizational performance. The study's findings also suggest that the impact of transformational leadership on organizational performance is not limited to a specific industry or context but can be observed across different organizations. These findings highlight the importance of transformational leadership in improving organizational performance through innovation and learning. Organizations can benefit from developing transformational leaders who can create a positive and supportive work environment that fosters creativity and innovation, leading to improved organizational performance.

According to our findings, transformational leadership directly and significantly impact motivation. This is consistent with the study by Top et al. (2020), who stated that transformational leadership is considered a direct factor in impact on motivating at work. The study revealed that Transformational leadership directly and significantly impacts innovative working behavior. The results of this study are consistent with those of Masood and Afsar (2017), as the findings revealed a beneficial and statistically significant impact from the

connection between the two parties. According to our findings, motivation mediates the relationship between transformational leadership and organizational performance (financial and non-financial). These results are consistent with the findings of Afsar and Umrani (2020).

Our study revealed that Innovative working behavior directly and significantly impacts organizational performance (financial and non-financial). If a company adopts transformational leadership, it will be able to maximize its efficiency. The study proved that Innovative working behavior directly and significantly impacts organizational performance (financial and non-financial). This is in line with Kim and Park (2017) as a business strategy; your success will depend on your skills, market insight, and commitment to the innovation process. Using this method frequently improves a company's efficiency. Also, our study revealed that Motivation directly and significantly impacts organizational performance (financial and non-financial). The results of this hypothesis correspond to those of Osabiya (2015), as worker productivity will not drop off if they are given more responsibility. As a result of the hard work of its motivated employees, the company has been able to increase quality, productivity, and profitability. This change will have a significant effect on organizational performance by helping companies inspire and motivate their current workforce.

Conclusion

Real-world business settings are dynamic, and organizations need transformational leadership to thrive in them. This study helps increase organizational performance by demonstrating the crucial part that motivation and innovative working behavior play in achieving this goal. In particular, the findings corroborate all of the hypotheses and demonstrate a transformational leadership style of management. The current study has proven important results that can be used in future research. Innovative working behavior also has a direct and significant positive impact on organizational performance (financial and non-financial), while motivation has a direct and significant positive impact on organizational performance (financial and non-financial). The results also show that innovative work behavior and motivation partially mediate the relationship between transformational leadership and organizational performance (financial and non-financial). The direct and indirect effects are both significant, indicating partial mediation.

Transformational leadership is a vital factor that can significantly influence organizational performance through innovative working behavior and motivation. This leadership style involves inspiring and motivating employees to go beyond their personal interests and work towards achieving the organization's goals. Transformational leaders can create an environment that fosters innovative working behavior by encouraging creativity, promoting a culture of innovation, and providing employees with the necessary resources and support.

Furthermore, transformational leaders can positively impact employee motivation by providing meaningful work, recognition, and personal and professional growth opportunities. This can lead to higher job satisfaction, increased organizational commitment, and improved overall performance. The role of transformational leadership in influencing organizational performance through innovative working behavior and motivation is not limited to any specific sector or industry. However, in the manufacturing and services sector,

transformational leadership can improve organizational performance and drive innovation and change.

The research findings offer substantial theoretical and practical contributions to the manufacturing sector in Saudi Arabia, presenting valuable insights for researchers and practitioners.

Theoretical Contributions

The research adds to our knowledge of leadership dynamics in Saudi Arabia's manufacturing sector by addressing the impact of transformative leadership on innovative behaviour and motivation. Identifying innovative work behavior and motivation as partial mediators helps enrich existing theoretical frameworks. Future studies on performance and leadership in the manufacturing setting can be guided by this comprehensive knowledge. This research provides insights into the relationship between innovative behavior, motivation, and leadership in a cultural milieu, with a particular emphasis on Saudi Arabia. Future research can benefit from this context-specific perspective, and it additionally has the potential to advance concepts of cross-cultural leadership.

Practical Contributions

Organizations in the Saudi Arabian manufacturing sector can use the findings to tailor leadership development programs. Emphasizing the significance of transformational managerial characteristics may encourage innovative working practices and employee motivation, which will eventually improve the efficiency of the organization. Practitioners can utilize the study's insights to develop comprehensive performance measurement systems. By recognizing the impact of both direct and mediated factors, organizations can better assess and evaluate their performance, incorporating financial and non-financial metrics. The study suggests that motivation and innovative work behavior are key drivers of organizational performance. Human resource policies can be adjusted to focus on enhancing motivation through appropriate incentives and fostering a culture that encourages and rewards innovative thinking. Organizations can promote cross-functional collaboration by recognizing the interconnectedness of leadership, motivation, and innovation. Departments such as human resources, leadership development, and research and development can work together to create a holistic approach to organizational improvement. Considering the cultural context of Saudi Arabia, organizations should tailor their leadership and motivation strategies to align with local values and norms. This may include incorporating cultural sensitivity training for leaders and creating an inclusive work environment. The study emphasizes the dynamic nature of the relationships between leadership, motivation, and performance. Organizations should adopt a mindset of continuous learning and improvement, adapting strategies based on evolving organizational and market conditions.

Declarations

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