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Effects of Charismatic Leadership and Professional Leadership on Employee's Performance in the Public Traditional Chinese Medicine Hospital: A Path Analysis

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Abstract

Objective: Hospital quality service requirements and outcomes are influenced by the performance of healthcare personnel. Through their leadership skills and work ethic, doctors and nurses are vital to the development and monitoring of healthcare services. This study used work motivation as an intermediary variable to examine how professional and charismatic leadership affected workers' performance. Methods: Examine how professional and charismatic leadership affects the output of healthcare workers. 1392 employees are included in this quantitative analysis. Path analysis is used to analyze data. The results of the study demonstrated that charismatic and competent leadership improved employee enthusiasm and job performance. One important mediating element was work motivation, which supported the idea that professional leadership produced better performance results than charismatic leadership. Conclusion: Based on managers' leadership, this study shows that work incentive is essential for improving employees' performance. In summary, professional leadership may have a greater impact on the quality of healthcare by enhancing employee performance.

Keywords: Healthcare Employees, Hospital Quality, Healthcare Quality, Traditional Chinese Medicine Hospital.

Introduction

A vital component of hospital services, employee health services help assess and guarantee the caliber of medical treatment given to patients with the highest professionalism and consideration [1]. Patient safety is directly impacted by inadequate teamwork, communication, and positive societal perception [2].

Employee performance, job motivation, and an effective leadership style are all thought to be essential components of employee performance that impact organizational success. In a similar vein, top performers are likely to put up greater effort in their designated jobs and follow company objectives. Employees with the necessary talents can be attracted and retained by an organization that encourages high performance [3]. Similarly, managers may use several leadership philosophies to motivate staff [4].

Employee performance is influenced by a number of organizational (leadership, incentive

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system, workplace conditions, supervision, and job design) and mental (motivation, attitude) elements, as well as personal (age, salary, education, duration of service, job title) aspects [5]. Ekasari et al. [6] claim that organizational and psychological elements have the most effects on workers' performance.

Healthcare quality heavily relies on employee performance because hospitals function based on their healthcare staff's abilities, motivation, and dedication. The combination of traditional Chinese medical practice and modern healthcare in Traditional Chinese Medicine (TCM) hospitals creates complex obstacles to maintaining high employee performance because of their distinctive cultural aspects, organizational structure, and operational style. Leadership excellence is a fundamental organizational requirement since it determines how employees feel about their work and connection to the organization. Research on healthcare leadership continues to expand, yet there is a notable deficiency in knowledge about how two leadership approaches (charismatic and professional) affect employee performance within TCM hospitals. Analyzing this deficiency becomes vital for advancing healthcare service quality and patient results within specialized settings.

The extensive research on leadership and employee performance demands further investigation into specific leadership effects across healthcare institutions, particularly within TCM hospital settings. Leader characteristics, including visionary qualities, inspirational behavior from charismatic leaders, and professional leaders' technical competence, lead to changes in employee conduct and performance [7]. Researchers need to investigate the intermediate effect of work motivation on this relationship further. Employee performance receives either enhanced or diminished impact from leadership through the motivating force that drives work activities with commitment and enthusiasm. Researching leadership styles and work motivation interactions enables researchers to understand better how leadership techniques should be adjusted to maximize employee performance in TCM hospitals.

Research Gaps

The extensive research on leadership and employee performance demands further investigation into specific leadership effects across healthcare institutions, particularly within TCM hospital settings. Leader characteristics, including visionary qualities, inspirational behavior from charismatic leaders, and the technical competence of professional leaders, lead to changes in employee conduct and performance. Researchers need to investigate the intermediate effect of work motivation on this relationship further. Employee performance receives either enhanced or diminished impact from leadership through the motivating force that drives work activities with commitment and enthusiasm. Researching leadership styles and work motivation interactions enables researchers to understand better how leadership techniques should be adjusted to maximize employee performance in TCM hospitals.

Research on leadership and employee performance has mainly studied Western healthcare institutions without sufficient focus on the particular context of TCM hospitals. Hanayasha et al. [8] demonstrated that transformational leadership creates positive job satisfaction and performance. Jaqua and Jaqua [9] confirmed that transactional leadership helps organizations reach their goals, but these studies failed to study the impact of charismatic and professional leadership. Few existing studies have analyzed work motivation; only a few have evaluated its mediating capability in the connection between leadership and performance. This research fills the gaps by studying charismatic and professional leadership in TCM hospitals while investigating work motivation as a mediator. The study explores effective leadership strategies

for culturally specific healthcare environments to generate a new understanding of leadership implementation.

TCM hospital administrators will likely maintain ineffective leadership strategies because of the research gap, which could produce suboptimal employee performance and reduced healthcare quality. This situation leads to higher employee departures, decreased patient satisfaction, and deteriorated organizational effectiveness.

Theoretical Background

The research draws from Transformational Leadership Theory because it demonstrates that leaders who inspire their followers achieve better employee performance [10]. Self-determination theory serves as a concept that explains how intrinsic and extrinsic motivational factors affect employee actions and their work outcomes [11]. As their first step, leaders who follow a transformational approach activate exceptional performance outcomes from their followers through emotional, value-based, and goal-oriented inspiration [12]. The visionary qualities of transformational leadership, represented by charismatic leadership, help employees become more committed and perform better. The theory demonstrates that employee performance improves through charismatic leadership because it generates organizational purpose and motivational drive within teams.

The behavioral drive of employees stems from intrinsic and extrinsic motivational elements, according to Self-Determination Theory (SDT). SDT suggests that employees perform better when their fundamental requirements for autonomy, competence, and linked relationships are satisfied [13]. SDT and professional leadership approach share common ground because professional leadership supports employees through resources and competence development to achieve motivation and performance outcomes. The theory indicates that work motivation is a mediator to explain how leadership styles influence employee performance.

Literature Review

Employees' performance

One crucial organizational advantage that comes from leadership is employee performance. "The level of effectiveness of an individual worker relative to his or her colleagues on several job-related behaviors and outcomes" is how Babin and Boles [14] define this notion. "Discretionary actions by individuals, not directly recognized by the formal system of incentives, and in the aggregate enhances the effective and efficient operation of the organization [15]" is how OCB, or organizational citizenship behavior, characterizes employee performance. Positive employee performance has an effect on metrics of corporate effectiveness such customer satisfaction, profitability, and productivity [16]. Investigating such conduct in the hospitality sector is therefore crucial. Performance is influenced by the management traits of the leader, including professional and charismatic leadership, as well as job motivation, according to Tangatarova & Gao [17].

Charismatic Leadership

According to the charisma literature, a charismatic leader's strategic decisions are shaped by the underlying individual values trademarked as boldness, resistance to the status quo, and high self-confidence [18]. A principle feature

H1: Charismatic leadership is positively related to employee performance.

- Transformational Leadership Theory suggests that charismatic leaders inspire and motivate employees, leading to higher performance.

Professional Leadership

H2: Professional leadership is positively related to employee performance.

Professional leadership, which emphasizes expertise and technical competence, aligns with SDT by fostering a sense of competence and autonomy among employees.

Work Motivation

Work motivation is the ability to work with excitement [19]. Negarandeh et al. [20] found that career growth, job features, job authority, and recognition factors all impacted employee motivation at work. The qualities of a strong leader increase employee motivation and performance through a leader's management abilities. Healthy leaders' management abilities increase employee commitment and loyalty and strongly affect their motivation and performance.

H3: Work motivation is positively related to employee performance.

SDT posits that motivated employees are more likely to perform well, as motivation fulfills their psychological needs for autonomy, competence, and relatedness.

H4: Charismatic leadership is positively related to work motivation.

Charismatic leaders inspire employees by creating a sense of purpose and enthusiasm, which enhances intrinsic motivation.

H5: Professional leadership is positively related to work motivation.

Professional leaders provide employees with the resources and support they need to feel competent and motivated, aligning with SDT.

H6: Work motivation mediates the relationship between charismatic leadership and employee performance.

Drawing on SDT, this hypothesis suggests that charismatic leadership enhances employee performance by increasing work motivation.

H7: Work motivation mediates the relationship between professional leadership and employee performance.

This hypothesis posits that professional leadership improves employee performance by fostering work motivation, as employees feel more competent and supported.

Methodology

Research Design

For this study, descriptive survey designs were used. A statistical examination of the association between leadership that transforms and job performance and the mediating influence of work motivation was conducted using a quantitative approach to gather numerical data [21].

Study Setting

The study was conducted as a hospital-based survey based on a convenience sample of 39

inpatient units in a general TCM hospital in a public hospital of TCM with over 1800 beds. Models that satisfied the inclusion criteria were chosen to conduct the sampling: 1) physicians and nurses with work experience of at least one year; 2) physicians, nurses, and technicians are not unavailable at the moment, on sick leave, or active duty; and 3) physicians and nurses are willing to participate in the survey. The survey questionnaire for the performance appraisal of tertiary public hospitals in China is specially designed in combination with the specific conditions of Chinese medicine hospitals. That is, transformational leadership positively impacts job performance and, in turn, hospitals' rank.

Participants and Procedures

The research involved 1,392 healthcare personnel working at a Chinese public Traditional Chinese Medicine (TCM) hospital among physicians, nurses, and technologists. The survey participants met three conditions: at least one year of work experience, active employment status, and willingness to complete the survey. Research data collection used WeChat to distribute an online survey to Chinese healthcare workers who frequently use this social media service. The employees of WeChat groups containing 700 healthcare professionals received the survey link, which led to data collection. The study explained its research aims to participants while providing confidentiality guarantees and inviting them to complete the survey without obligation. The survey operated twenty-four hours from March 6 to March 7, 2023, receiving 1,392 valid responses. The analysis excluded incomplete or inconsistent responses to guarantee data quality.

Research Instruments

The research instruments were derived from validated scales that appeared in previous research. Research participants evaluated charismatic leadership through a 6-item questionnaire based on the Multifactor Leadership Questionnaire (MLQ) [22] and professional leadership through a 5-item scale [23]. The measure of work motivation relied on three adapted items from the Work Extrinsic and Intrinsic Motivation Scale (WEIMS) [24]. The evaluation of employee performance consisted of an 8-item scale. All survey items used a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The analysis included control variables, which included age, years of experience, job title, and income level, to minimize their effects on employee performance assessment.

Generalizability and Representativeness of the Sample

Healthcare workers at this public TCM hospital formed the study sample through their representation of physicians together with nurses and technologists from each department. The wide range of hospital employees included in the study makes the results relevant to multiple departments. Yet, their applicability to other healthcare institutions remains uncertain because of TCM hospital cultural and organizational differences. The sample becomes more representative of the target population because the research includes multiple categories of employees. The survey was extended to all potential participants, including employees from all departments and job positions, to promote diversity and inclusivity.

Sampling Technique and Rationale

The researcher used convenience sampling to gather participants from WeChat groups containing almost 700 hospital staff members. The research selected convenience sampling due to its time-efficient approach to contacting numerous participants quickly. The research team

decided that convenience sampling was suitable for this preliminary study because the target audience was easily accessible. The survey distribution through WeChat groups successfully covered employees from various roles across different hospital departments.

Selection Criteria

The criteria for participant selection included one year of work experience in one of three professions: physicians, nurses, and technologists. Active employment was mandatory, and the participants needed to be willing to complete the survey. The chosen participant selection criteria established their adequate professional experience and current workplace involvement to deliver significant findings about leadership effects on performance.

Control Variables

The analysis included age, experience years, job title, and income level control variables to establish their impact on employee performance. The chosen variables stem from research that established their effects on work motivation and performance within healthcare institutions. The analysis includes these variables to develop relationships between employee performance outcomes and charismatic and professional leadership styles.

Data Collection Procedure

The research relied on an online survey that used WeChat as the primary distribution platform because this social media network is widely used across China. Workers from employee WeChat groups accessed the survey link among the 700 healthcare professionals they represented. The study explained its purpose to participants while they received an assurance of confidentiality and encouragement to participate voluntarily. The survey collected 1,392 responses between March 6 and March 7, 2023, for 24 hours. The analysis excluded responses that were incomplete or inconsistent to guarantee data quality. The research instrument contained questions about demographic traits (age, educational level, and employment position) alongside sections to evaluate leadership approaches, work motivation, and employee performance.

Validity and reliability testing

Table 1 shows that all instruments were declared valid and reliable based on the validity and reliability tests.

| | Cronbach's alpha | Composite reliability (rho_a) | Composite reliability (rho_c) | Average variance extracted (AVE) |
|-------------------------|------------------|-------------------------------|-------------------------------|----------------------------------|
| Job_Performance | 0.946 | 0.946 | 0.955 | 0.726 |
| Professional leadership | 0.891 | 0.892 | 0.932 | 0.821 |
| Charismatic _leadership | 0.864 | 0.865 | 0.917 | 0.788 |
| Work _Motivation | 0.919 | 0.919 | 0.949 | 0.86 |

Table 1: Construct Reliability and Validity

Data Analysis

The path analysis approach is the data analysis method used in this investigation. Path analysis is used to determine the direct and indirect effects of the independent factors on the variable that

is dependent through mediating variables, in addition to to see the effect partially or concurrently between both dependent and independent variables. This study's data analysis method makes use of PLS-SEM 4.0 and SPSS 17.0.

Results and Discussion

Characteristics of Respondents

Table 3 shows the demographic characteristics of the respondents. It can be observed that nurses (56.6%) participated in the survey more than physicians (33.7%). Regarding the age of respondents, 54.8% of them fall within the age group (26-35); 26.7% of them are between 36 and 45 years of old; 13.0% of them are within the age group (above 45), and 5.5% of them are below 25 years old. In descending order, 70.8% of the respondents hold a bachelor's degree or diploma, 21.8% of them hold a master's degree, and 7.4% of them have a postgraduate or above. Regarding the position's title, 55.12% are primary and below, 34.1% attend, and 9.9% are associate chiefs. Finally, in ascending order, 6.6% of the respondents have 50000 or below income per year, 224.9% have 16000 or above income per year, 33.6% have 60000-100000 income per year, and 34.8% have 110000-150000 income per year.

| Data demographic | N | % |
|----------------------------------|----------|----------|
| Education Background | | |
| Bachelor and below | 985 | 70.8 |
| Master | 304 | 21.8 |
| Doctor and or above | 103 | 7.4 |
| Category | | |
| Physician | 469 | 33.7 |
| Nurse | 788 | 56.6 |
| Technologist | 135 | 9.7 |
| Job title | | |
| Primary and below | 713 | 51.2 |
| Attending | 475 | 34.1 |
| Associate Chief | 138 | 9.9 |
| Chief | 66 | 4.7 |
| Income per year(thousand) | | |
| 50 or below | 92 | 6.6 |
| 60-100 | 468 | 33.6 |
| 110-150 | 485 | 34.8 |
| 160 or above | 347 | 24.9 |
| Age | | |
| 25 or below | 76 | 5.5 |

| | | |
|-------------|-----|------|
| 26-35 | 763 | 54.8 |
| 36-45 | 372 | 26.7 |
| 45 or above | 181 | 13.0 |

Table 2: Characteristics of Respondents

The Influence of a Leader's Ability on Employee's Performance Through Work Motivation

The reliability and validity of the modified items were confirmed in the existing literature, but they were also expected to support the measuring items' internal consistency. This was accomplished by using the Cronbach's alpha test for reliability and an inter-construct correlations test for predictive validity. With a significant value of 0.000 (<0.05), the results demonstrated the simultaneous influence of leaders' work motivation (Z), management skill (X2), and personality ability (X1). Table 3's inter-construct correlation result demonstrates the predictive validity of the items. In a similar vein, Table 3's Cronbach's alpha coefficients are higher than the suggested 0.70 (Field, 2015), suggesting that the study's items are highly dependable. Table 4 provides more details.

| Variable | CA | Job_Performance | Management Ability | Personal Ability | Work_Motivation |
|-------------------------|-------|-----------------|--------------------|------------------|-----------------|
| Job_Performance | 0.852 | 1 | | | |
| Professional leadership | 0.898 | 0.906 | 1 | | |
| Charismatic leadership | 0.860 | 0.809 | 0.888 | 1 | |
| Work_Motivation | 0.876 | 0.81 | 0.729 | 0.928 | 1 |

Table 3: Cronbach's Alpha and Inter-Construct Correlation

Note: ** $P < 0.01$ Source: Survey data (2023)

The management and personal skills of motivator leaders have an impact on job performance [25]. When it comes to mediating the impact of managers' and leaders' personal skills on job performance, work motivation has a favorable and significant effect [26]. Performance is positively and significantly impacted by job motivation when a high leader is in charge. On the other hand, the abilities of a more proactive leader will boost staff performance and work motivation [27].

Workers are the organization's most valuable resource, particularly in hospitals where patients' safety is a top priority. Employee dedication, motivation, and job happiness are critical to the success of an organization [28]. Medical professionals, nurses, and technologists must devise and execute strategies to consistently address the emotional needs of healthcare workers and effectively inspire them in order to handle these problems and obstacles. (Field, 2015), suggesting that the study's items have high reliability. Table 4 provides more details.

R Square Analysis

The results of the calculation of R^2 show the diversity of data that the model can explain. Employees' performance has an R^2 value of 0.902, meaning 90.2% of employee performance is

influenced by managers' personalities, management abilities, and work motivation, while the other 9.8% is another variable outside this study.

| | Variable | Path | t _{statistic} | (sig.) | Description | R ² | f ² | AVE |
|----|--------------|-------|------------------------|--------|-------------|----------------|----------------|-------------------------|
| H1 | X1 on Z | 0.309 | 10.121 | 0.000 | Sig (+) | 0.672 | 0.307 | SRMR=0.052 NFI=0.865 |
| H2 | X2 on Z | 0.637 | 19.159 | 0.000 | Sig (+) | | 0.307 | |
| H3 | X1 on Y | 0.214 | 4.437 | 0.000 | Sig (+) | 0.902 | 0.323 | |
| H4 | X2 on Y | 0.352 | 16.114 | 0.000 | Sig (+) | | 0.472 | |
| H5 | Z on Y | 0.366 | 9.066 | 0.000 | Sig (+) | | 0.451 | |
| H6 | X1 on Z on Y | 0.078 | 5.716 | 0.000 | Sig (+) | | | |
| H7 | X2 on Z on Y | 0.233 | 6.816 | 0.000 | Sig (+) | | | |

Table 4: Test for Research Variable-Related Coefficient

The Effect of Charismatic Leadership on Employee's Work Motivation (H1)

Leaders' abilities positively and significantly affect employees' work motivation (H1).

The Effect of a Leader's Management Ability On employees' Motivation (H2)

A leader's management ability positively and significantly affects employee motivation (H2). Most of the respondents were more than the compensation received. Low management ability among health professionals is caused by Reward and punishment, job promotion, and characteristics [29]. Along with research [30], a leader's management ability, that is leadership, positively and significantly affects employees' work motivation.

The Effect of Work Motivation on Employee Performance (H5)

Employee performance is positively and dramatically impacted by motivation (H5). A study by [31] found that woke motivation and the caliber of human resources have an impact on workers' performance. According to [32], employee performance is not much impacted by work motivation. The effectiveness of the healthcare services rendered depends on having highly motivated healthcare workers with the necessary skills [33].

The Effect of a Leader's Charismatic Leadership on Employees' Performance (H3)

A leader's charismatic leadership positively and significantly affects employee performance (H3). The findings of this research also support [34] that leaders' ability affects the healthcare employees' performance at the hospital.

The Effect of Leaders' Professional Leadership on Employees' Performance (H4)

A leader's management ability positively and significantly affects healthcare employees' performance (H4). Strengths in research [35] include leaders' management ability, which positively and substantially affects employees' pheromones. Employees will provide excellent service if they are satisfied with their work and willing to help each other in a team environment. The results of the study confirm [36] that the primary driver of performance improvement is a leader's management. When workers are happy with their jobs, they will give patients high-quality treatment, which can boost the productivity of the whole company.

Conclusions

Discussion

The research investigated how digital transformation affects performance outcomes by analyzing technological innovation, employee adaptability, and customer engagement roles. The research shows that digital transformation creates substantial organizational performance growth through technological innovation, which stands out as the leading performance factor. Employee adaptability functions as a performance moderation variable between digital transformation and its relationship with performance outcomes, while customer engagement acts as a performance relationship mediational variable. The study results deliver extensive knowledge about how digital transformation creates organizational achievements.

Theoretical Implications

The research findings enhance knowledge about digital transformation's effects on organizational performance by multiple means. The research expands the Resource-Based View (RBV) by showing that technological innovation and employee adaptability are critical organizational resources that enhance digital performance. The study disproves the conventional belief that digital transformation alone is the key to success by demonstrating that human factors and customer-oriented elements matter more. The combination of moderation and mediation effects enables researchers to create a better theoretical framework that explains sophisticated methods by which digital transformation impacts performance.

Practical Implications

This study provides concrete, practical guidance to professionals about using digital transformation for better organizational performance outcomes. Organizations must direct their financial resources toward buying advanced technologies, including AI and cloud computing systems, which boost technological innovation. Employee success in digital transformations requires organizations to establish programs that promote adaptability training. Organizations must enhance customer engagement by offering personalized digital experiences since such experiences are a primary mediator of performance improvement. These initiatives let organizations achieve maximum returns from their digital transformation process.

Limitations and Future Research Recommendations

This research produced valuable findings, yet it also contained multiple essential constraints. The analysis of cross-sectional data restricts the researchers from identifying cause-and-effect relationships. Future academic research should utilize longitudinal designs to evaluate the persistent impacts of digital transformation work strategies. The research occurred within one specific industry, which could affect the general application of its findings. The findings would become more applicable if investigators conducted similar tests across different industries and cultural settings. The research requires examination of extra moderators like leadership approaches and organizational ethics to discover complete boundaries regarding digital transformation effectiveness.

Conclusion

The study demonstrates that digital transformation's essential function for performance

improvement requires innovative technology, an adaptable workforce, and enhanced customer relationships. The research extends the Resource-Based View theory through its findings by developing a comprehensive framework to explain digital transformation processes. The study gives practical guidance to professionals about utilizing digital approaches to boost performance outcomes. Further research should analyze digital transformation's long-term impacts and situational elements because this study has established an initial foundation. This study provides organizations with essential knowledge about digital age success.

Declarations

Abbreviations

Traditional Chinese Medicine (TCM)

Self-Determination Theory (SDT)

Ethics Approval and Consent to Participate

Firstly, this study strictly adhere to the Helsinki Declaration, and all methods are implemented by relevant guidenlines and regulations. Secondly, this study was approved by the Ethics Committee for Scientific Research of Hospital of Chengdu University of Traditional Chinese Medicine (2022KL-036-01). Finally, informed consent was obtained from each participant's legal guardian before participation.

Consent for Publication

No applicable.

Availability of Data and Materials

Availability of data and materials. All data analyzed in this study is shared publicly at the BMC website.

Competing Interests:

The authors declare no competing interests.

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Authors' contribution:

Conceptualization, NaZhang; methodology, NaZhang; resources, PeiYang Gao; validation, NaZhang, Peiyang Gao and Anees Janee Ali; formal analysis, Nazhang; Investigation, NaZhang; Resources, NaZhang, WenJuYang; Data curation, Nazhang, WenJu Yang; Writing-original draft preparation, NaZhang; Writing-review and editing, Anees Janee Ali; visualization, Peiyang Gao and Anees Janee Ali; Supervision, Anees Janee Ali; Project administration, Peiyang Gao and Anees Janee Ali; funding acquisition, NaZhang. All authors have read and agreed to published version of the manuscript.

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