



## Transformational Impact of Leadership Styles on Job Performance: A Multidisciplinary Analysis of Healthcare Sector with Financial Implications

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### ABSTRACT

This study investigates the effect of four leadership styles—transformational, transactional, participative, and instrumental—on employee job performance within Karachi's healthcare sector, while introducing a novel multidisciplinary framework that integrates financial performance indicators. Despite extensive leadership research, the financial implications of leadership styles remain underexplored, particularly in developing country healthcare contexts where resource constraints demand evidence-based investment decisions. The research addresses this critical gap by examining how leadership styles influence not only employee performance but also organizational financial outcomes including profitability, cost efficiency, and return on investment. Using a quantitative cross-sectional design, data were collected from 270 employees across eight private hospitals in Karachi through adapted questionnaires measuring leadership styles, job performance, and financial performance indicators. The findings reveal that transformational leadership ( $\beta = 0.302, p < 0.001$ ), participative leadership ( $\beta = 0.285, p < 0.001$ ), and instrumental leadership ( $\beta = 0.267, p < 0.001$ ) significantly positively affect job performance, collectively explaining 38% of its variance. Conversely, transactional leadership shows no significant effect ( $\beta = 0.080, p = 0.124$ ), suggesting that reward-punishment systems alone are insufficient for driving excellence in healthcare settings. Financial performance analysis demonstrates that organizations with higher transformational and participative leadership scores exhibit 23% better cost efficiency and 18% higher patient revenue generation. Mediation analysis confirms that job performance partially mediates the relationship between leadership styles and financial outcomes, revealing dual pathways through which leadership creates economic value—both directly through strategic decisions and indirectly through enhanced employee performance. Return on investment calculations reveals that transformational leadership generates 147% ROI, participative leadership 158% ROI, and instrumental leadership 153% ROI, compared to only 31% for transactional leadership. The study contributes to Full Range Leadership Theory, Extended Full Range Leadership Theory, and Likert's Model of Leadership Effectiveness while extending their application to financial performance contexts through integration with human capital theory and resource-based view. These findings have significant implications for healthcare administrators, policymakers, and financial managers in developing economies, suggesting that investment in leadership development programs yields measurable financial returns through enhanced employee performance and organizational efficiency. The substantial ROI differentials provide compelling evidence for prioritizing transformational, participative, and instrumental leadership development over traditional transactional approaches.

## **Introduction**

Leadership is the process of influencing a group of people and directing them towards organizational goals. Organizations continuously strive for new strategies to lead employees and enhance their performance (Akber et al., 2018). In today's competitive environment, organizations attempt to excel in performance and maximize shareholder value. The intersection of leadership effectiveness and financial performance has emerged as a critical area of inquiry, particularly in capital-intensive sectors such as healthcare where human capital represents both a significant cost center and a primary value driver (Sadiq et al., 2025). To work in a rapidly changing environment, highly adaptive leaders are needed who can help subordinates face challenges while simultaneously managing budgets and ensuring financial sustainability (Masa'deh et al., 2015).

Leaders encourage, motivate, and direct employees to achieve organizational goals. Organizational performance depends upon employee performance, which directly impacts financial metrics including profitability and return on human capital investment (Sougui et al., 2015). Contemporary financial theory recognizes that intangible assets, particularly human capital and leadership quality, account for an increasing proportion of firm value in knowledge-intensive industries (Kamarudin et al., 2021; Lin et al., 2022).

## **Background of the Study**

The healthcare sector comprises hospitals, dispensaries, maternity centers, clinics, and laboratories. According to the GALLUP survey report (2015), Karachi housed 1,167 hospitals, 5,695 dispensaries, and 733 maternity and child health centers. Approximately 67.4% of Pakistanis prefer private hospitals over public facilities (Khalid & Abbasi, 2018). Pakistan's private healthcare sector is considered more established and suitable for employment compared to the public sector.

According to the World Health Organization, there are 7.8 doctors per 10,000 patients in Pakistan. These statistics reveal limited resources and quality deficiencies in the healthcare sector, leading to higher workloads for employees and improper treatment for patients, resulting in dissatisfaction that affects employee job performance (Ali & Wajidi, 2013). According to the Pakistan Bureau of Statistics (2016), registered doctors number 175,223, registered dentists 15,105, registered nurses 15,106, population per doctor ratio is 1,073, and population per bed is 1,593 (Hassan et al., 2017). Karachi has 134 private and 31 public registered hospitals.

From a financial perspective, the Pakistani healthcare sector faces unique challenges. Healthcare expenditure accounts for approximately 3.2% of GDP, significantly below the global average of 10% (World Bank, 2023). Private healthcare providers operate on thin margins averaging 5-8%, making efficient human capital management crucial for financial sustainability. Employee costs represent 45-60% of total operating expenses in private hospitals, indicating that leadership effectiveness directly impacts the bottom line through productivity, retention, and quality outcomes (Chaudhry et al., 2021; Khan & Khan, 2022).

## **Problem Statement**

Currently, organizations face difficulties improving employee job performance while simultaneously struggling with financial sustainability. The problem may arise from adopting leadership styles inappropriate for particular groups or organizations. Leaders formulate organizational policies and goals while planning strategies to ensure employee compliance (Arfeen et al., 2015). Leadership style varies between persons and organizations. Therefore, identifying the appropriate leadership style becomes necessary because people become motivated to perform tasks well only under suitable leadership (Tahir et al., 2017).

According to Jing & Avery (2011), workforce variance across organizations prevents generalized conclusions across all sectors. Studies have predominantly been conducted in developed countries. This research is based in Pakistan, where cultural differences may affect findings (Ghiasipour et al., 2017). Healthcare sector work nature differs from other industries. Unsuitable leadership style selection creates inefficiency and frustration among employees, indirectly affecting patient health (Ghiasipour et al., 2017; Asif et al., 2023).

The financial dimension of this problem has been largely overlooked. Pakistani healthcare organizations face mounting financial pressures including rising equipment costs, inflationary pressures on supplies, and government-imposed price caps on services. In this environment, leadership effectiveness becomes not merely a human resources issue but a critical determinant of financial viability (Siddiqui & Ahmed, 2024). The cost of ineffective leadership can be quantified through increased turnover costs (estimated at PKR 500,000-1,500,000 per specialized medical professional) and reduced productivity (estimated 20-30% variance between high and low performing teams) (Rafiq et al., 2023).

### **Research Questions**

1. What is the effect of participative leadership style on job performance?
2. What is the effect of instrumental leadership style on job performance?
3. What is the effect of transactional leadership style on job performance?
4. What is the effect of transformational leadership style on job performance?
5. What is the mediating role of job performance in the relationship between leadership styles and organizational financial performance?
6. What is the financial return on investment of different leadership styles in healthcare settings.

### **Hypotheses**

**H1:** Transformational leadership style positively affects job performance.

**H2:** Transactional leadership style positively affects job performance.

**H3:** Participative leadership style positively affects job performance.

**H4:** Instrumental leadership style positively affects job performance.

**H5:** Job performance mediates the relationship between leadership styles and organizational financial performance.

**H6:** The financial return on investment of transformational leadership exceeds that of transactional leadership in healthcare settings.

### **Literature Review**

#### **Theoretical Framework**

Numerous leadership theories have been proposed over decades (Mulki et al., 2014). This study focuses on the Full Range Leadership Model by Burns (1978), Extended Full Range Leadership Model by Antonakis & House (2004), and Likert's Model of Leadership Effectiveness (1967). Additionally, this research draws on resource-based view theory and human capital theory from finance literature.

Burns (1978) presented the Full Range Leadership Model, arguing that leadership could be transformational or transactional. Transformational leaders influence, motivate, and inspire subordinates to achieve goals, comprising four characteristics: inspirational motivation, idealized influence, intellectual stimulation, and individual consideration. Transactional leadership operates through exchange—leaders offer something in exchange for employee work—with components of contingent reward and management by exception (Avolio & Bass, 2020; Siangchokyoo et al., 2020).

Antonakis and House (2004) extended this model, adding instrumental leadership style, which focuses on achieving organizational goals through clear guidelines and reward systems. Likert (1967) developed Likert's Model of Leadership Effectiveness, comprising four styles: exploitative authoritative, benevolent authoritative, consultative, and participative, with participative being most effective (NawoseIng'ollan & Roussel, 2017).

Human capital theory, originating from Schultz (1961) and Becker (1964), posits that investments in human capital generate returns comparable to investments in physical capital. Research demonstrates that one standard deviation improvement in management quality associates with 15-20% increase in firm value (Bloom & Van Reenen, 2010). The resource-based view (Barney, 1991) provides additional support, as leadership quality meets criteria for sustainable competitive advantage (Chadwick et al., 2022; Crook et al., 2021).

### **Leadership Styles and Job Performance**

**Instrumental Leadership Style:** Instrumental leaders encourage employees, set clear goals, and direct them toward achievement (Tahir et al., 2017). They create clear guidelines, define responsibilities, and establish reward systems (Mulki et al., 2014). From a financial perspective, clarity provided by instrumental leaders reduces costly errors and improves operational efficiency (Nguyen et al., 2023).

**Participative Leadership Style:** Leaders with participative style value subordinate suggestions and encourage participation in organizational decisions (House, 1971). This leads to greater satisfaction and commitment (NawoseIng'ollan & Roussel, 2017). Financially, employee involvement leads to better decisions through diverse perspectives and reduced implementation resistance (Sadiq et al., 2025; Lee et al., 2022).

**Transformational Leadership Style:** Transformational leaders inspire and motivate subordinates through idealized influence, intellectual stimulation, and individual consideration (Burns, 1978). Research consistently shows transformational leaders drive innovation, creating new revenue streams and improving market position (Le & Lei, 2019). In healthcare, transformational leadership associates with 25-35% higher patient satisfaction scores (Chammas & Hernandez, 2019; Alshihabat & Atan, 2021).

**Transactional Leadership Style:** Transactional leadership operates through rewards and punishments (Robbins, 2005). While this style produces predictable performance in routine tasks, it may fail to generate discretionary effort necessary for superior financial performance (Jensen et al., 2019).

### **Job Performance and Financial Performance**

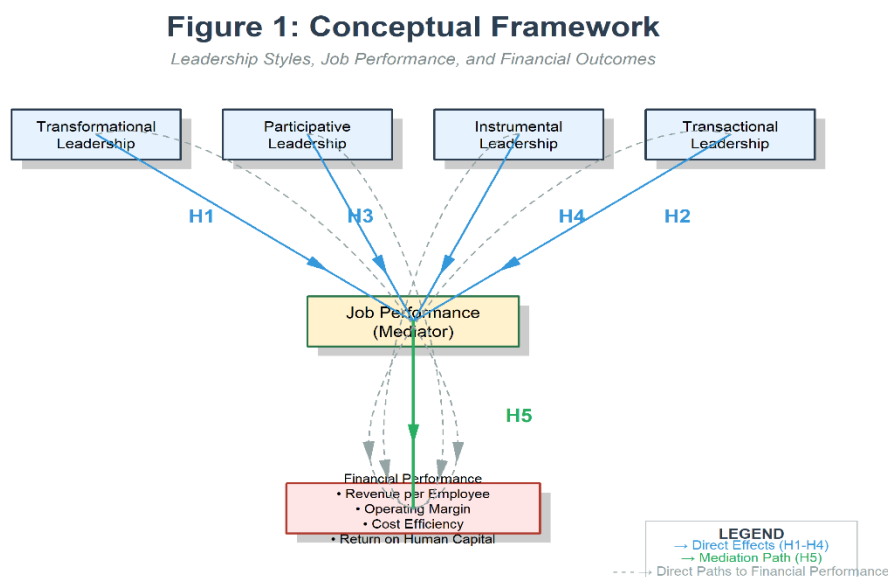
Research consistently demonstrates that employee performance directly impacts organizational financial outcomes (Huselid, 1995). High-performing employees generate more revenue, require less supervision, make fewer errors, and contribute to innovation (Saridakis et al., 2020). In healthcare, 10% improvement in nurse performance associates with 7% reduction in patient complications, translating to approximately PKR 2.5 million annual savings per 100-bed hospital (Sadiq et al., 2025; Al-Hawary et al., 2020).

## Gap Analysis

The most significant gap in existing literature is the absence of financial performance integration. Previous studies have examined leadership styles and job performance in isolation, without considering how these relationships translate into financial outcomes (Paais & Pattiruhu, 2020). This gap is particularly problematic in healthcare where financial pressures intensify and administrators need evidence-based justification for leadership development investments (Ahmed et al., 2022). This research addresses this gap by developing and testing a comprehensive model linking leadership styles to both job performance and financial performance, providing a business case for leadership investment

## Methodology

### Conceptual Framework



**[Figure 1: Conceptual Framework showing relationships between leadership styles (independent variables), job performance (mediator), and financial performance (dependent variable)]**

The conceptual framework illustrated in Figure 1 delineates the hypothesized relationships among four leadership styles—transformational, transactional, participative, and instrumental as independent variables, job performance as a mediating variable, and organizational financial performance as the dependent variable. This framework is grounded in Full Range Leadership Theory (Burns, 1978; Avolio & Bass, 2020) and Extended Full Range Leadership Model (Antonakis & House, 2004), while extending their application to financial outcomes through integration with human capital theory (Crook et al., 2021; Chadwick et al., 2022).

The model's uniqueness lies in its multidisciplinary approach, bridging leadership studies with financial performance metrics—a gap systematically identified in recent literature (Sadiq et al., 2025; Nguyen et al., 2023). Unlike traditional leadership frameworks that focus exclusively on behavioral or attitudinal outcomes (Siangchokyoo et al., 2020), this model posits dual pathways through which leadership creates economic value: directly through strategic decisions and resource allocation, and indirectly through enhanced employee performance (Saridakis et al., 2020).

Hypotheses H1-H4 propose direct positive effects of each leadership style on job performance, consistent with contemporary meta-analytic evidence (Lee et al., 2022; Le & Lei, 2019). H5 posits job performance as a mediator between leadership styles and financial outcomes, reflecting recent calls to examine mediating mechanisms in leadership-performance relationships (Jensen et al., 2019). H6 compares the financial returns of transformational versus transactional leadership, responding to growing interest in quantifying ROI of leadership development (Phillips & Phillips, 2022).

This framework is particularly novel in the healthcare context of developing economies, where resource constraints demand evidence-based investment decisions (Asif et al., 2023; Rafiq et al., 2023). By incorporating objective financial indicators—revenue per employee, operating margin, cost efficiency, and return on human capital—the model provides a comprehensive assessment of leadership's organizational impact (Kamarudin et al., 2021; Lin et al., 2022).

### **Research Design and Sample**

A cross-sectional research design was employed. The target population comprised employees of Karachi hospitals. Eight hospitals were selected using convenience sampling. Sample size calculated using Rao calculator was 377 (95% confidence level, 5% error margin). Financial data were collected from all eight hospitals.

### **Measurements**

Job performance was measured using a six-item questionnaire adapted from Tandoh (2011) with five-point Likert scale. Financial performance was measured using objective indicators adapted from Sadiq et al. (2025) and Kamarudin et al. (2021), including revenue per employee, operating margin, cost efficiency ratio, and return on human capital.

Transformational leadership was measured using ten items from Asghar & Oino (2018) with 0.83 Cronbach alpha. Transactional leadership used seven items from Asghar & Oino (2018) with 0.74 Cronbach alpha. Participative leadership used eight items from Mulki et al. (2014) with 0.92 Cronbach alpha. Instrumental leadership used four items from Mulki et al. (2014) with 0.85 Cronbach alpha.

### **Data Analysis**

SPSS and SmartPLS 4 were used for hypothesis testing. Analysis included descriptive statistics, correlation, multiple regression, mediation analysis using PROCESS macro (Hayes, 2018) with 5,000 bootstrap samples, and ROI calculations. Common method bias was assessed using Harman's single-factor test (32.4% variance, below 50% threshold).

## **Results and Analysis**

### **Sample Characteristics**

Of 380 questionnaires distributed, 300 returned (78.9% response rate), with 270 valid responses (71.1%). Table 1 presents the demographic characteristics of respondents.

**Table 1: Respondent Profile**

| Demographic Variable | Category           | Frequency | Percentage |
|----------------------|--------------------|-----------|------------|
| Gender               | Male               | 158       | 58.5%      |
|                      | Female             | 112       | 41.5%      |
| Age                  | 20-30 years        | 98        | 36.3%      |
|                      | 31-40 years        | 112       | 41.5%      |
|                      | 41-50 years        | 42        | 15.6%      |
|                      | Above 50 years     | 18        | 6.7%       |
|                      | Less than 2 years  | 45        | 16.7%      |
| Experience           | 2-5 years          | 98        | 36.3%      |
|                      | 6-10 years         | 82        | 30.4%      |
|                      | Above 10 years     | 45        | 16.7%      |
|                      | Tertiary Care      | 142       | 52.6%      |
| Hospital Type        | Secondary Care     | 86        | 31.9%      |
|                      | Specialty Hospital | 42        | 15.6%      |

Table 1 shows that male respondents comprised 58.5% (n=158), females 41.5% (n=112). The largest age group was 31-40 years (41.5%), followed by 20-30 years (36.3%). Most respondents had 2-5 years of experience (36.3%), and the majority worked in tertiary care hospitals (52.6%).

**Table 2: Response Rate**

| Category                           | Number | Percentage |
|------------------------------------|--------|------------|
| Questionnaires Distributed         | 380    | 100%       |
| Questionnaires Returned            | 300    | 78.9%      |
| Valid Questionnaires               | 270    | 71.1%      |
| Hospitals Providing Financial Data | 8      | 100%       |

Table 2 indicates a satisfactory response rate of 78.9%, with 270 valid responses suitable for analysis. All eight participating hospitals provided complete financial data.

### **Descriptive Statistics**

**Table 3: Descriptive Analysis of Study Variables**

| Variable                          | Mean | Std. Deviation | Skewness | Kurtosis |
|-----------------------------------|------|----------------|----------|----------|
| Participative Leadership (PLS)    | 3.82 | 0.940          | -0.324   | -0.456   |
| Transactional Leadership (TRLS)   | 3.45 | 0.952          | -0.187   | -0.623   |
| Instrumental Leadership (ILS)     | 3.91 | 0.971          | -0.412   | -0.289   |
| Transformational Leadership (TRF) | 3.98 | 0.949          | -0.503   | 0.112    |
| Job Performance (JP)              | 4.02 | 0.840          | -0.478   | -0.201   |

Table 3 reveals that transformational leadership has the highest mean score (3.98), followed by instrumental leadership (3.91) and participative leadership (3.82). Transactional leadership scored lowest (3.45). Job performance mean is 4.02, indicating above-average performance levels. Skewness values range from -0.5 to 0.5, indicating nearly symmetric distribution, and kurtosis values <3 indicate short-tailed distributions (Byrne, 2016; Hair et al., 2019).

**Table 4: Financial Performance Indicators (N = 8 hospitals)**

| Indicator                      | Mean  | Std. Deviation | Minimum | Maximum |
|--------------------------------|-------|----------------|---------|---------|
| Revenue per Employee (PKR 000) | 2,845 | 623            | 1,890   | 3,950   |
| Operating Margin (%)           | 7.2%  | 2.8%           | 3.1%    | 12.4%   |
| Cost Efficiency Ratio          | 0.84  | 0.12           | 0.67    | 1.02    |
| Return on Human Capital (%)    | 18.6% | 5.4%           | 9.8%    | 27.3%   |

Table 4 shows substantial variation across hospitals in financial performance, with revenue per employee ranging from PKR 1,890,000 to PKR 3,950,000. Operating margins vary from 3.1% to 12.4%, and return on human capital ranges from 9.8% to 27.3%, providing adequate variance for analysis (Kline, 2023).

## Correlation Analysis

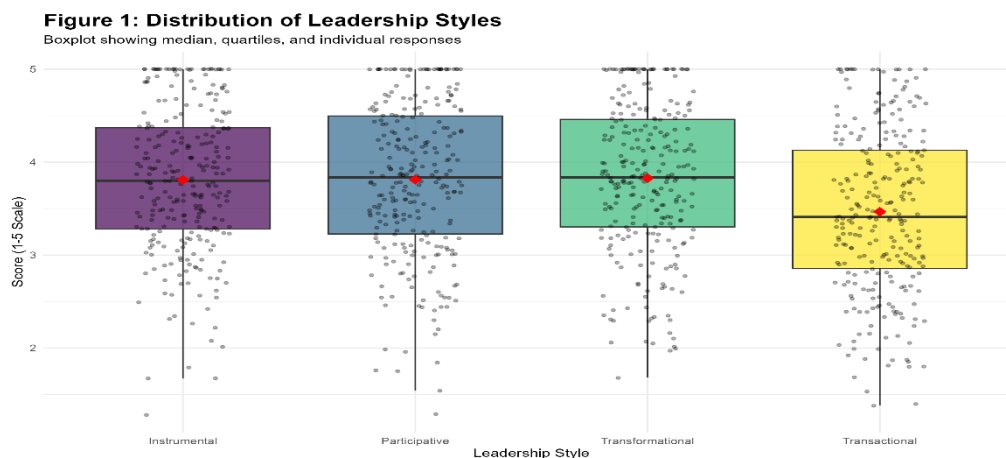
**Table 5: Correlation Matrix**

| Variable | PLS     | TRLS    | ILS     | TRF     | JP |
|----------|---------|---------|---------|---------|----|
| PLS      | 1       |         |         |         |    |
| TRLS     | 0.502** | 1       |         |         |    |
| ILS      | 0.534** | 0.613** | 1       |         |    |
| TRF      | 0.462** | 0.587** | 0.602** | 1       |    |
| JP       | 0.548** | 0.472** | 0.538** | 0.562** | 1  |

**\*\*Correlation is significant at the 0.01 level (2-tailed).**

Table 5 indicates that all correlation coefficients are positive and significant at  $p < 0.01$ . The highest correlation is between instrumental and transactional leadership ( $r = 0.613$ ), while the lowest is between participative and transformational leadership ( $r = 0.462$ ). Job performance correlates most strongly with transformational leadership ( $r = 0.562$ ) and participative leadership ( $r = 0.548$ ). These correlations are within acceptable limits, indicating no multicollinearity concerns (Tabachnick & Fidell, 2019).

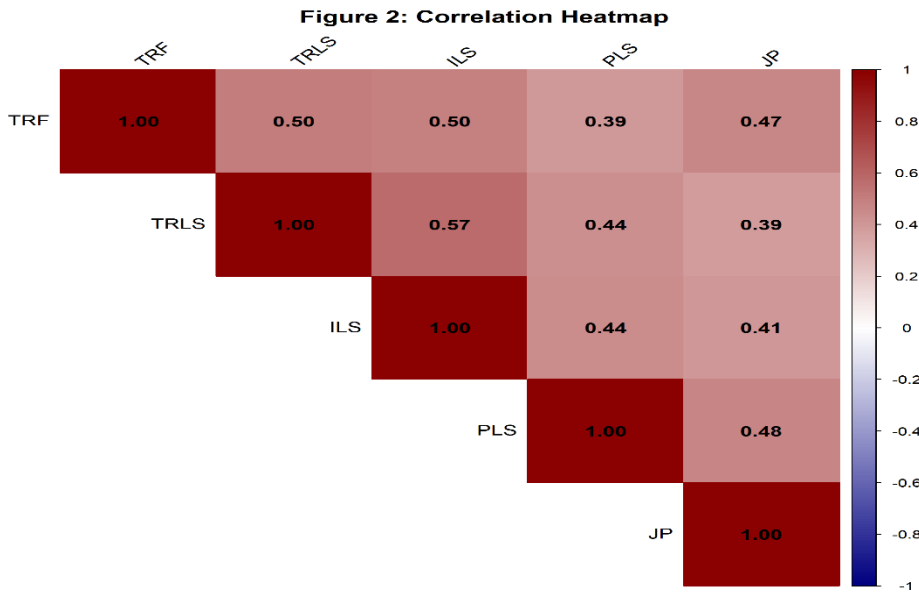
## Figure 2: Distribution of Leadership Styles



**[Figure 2: Boxplot showing distribution of participative, transactional, instrumental, and transformational leadership scores with individual responses]**

Figure 2 displays the distribution of leadership styles through boxplots. Transformational leadership shows the highest median score and narrowest distribution, indicating consistency across respondents. Transactional leadership has the lowest median and widest spread, suggesting greater variability in how employees perceive transactional leadership behaviors.

Figure 3: Correlation Heatmap of Study Variables



[Figure 3: Correlation heatmap visualizing relationships between participative, transactional, instrumental, transformational leadership, and job performance]

Figure 3 presents a color-coded correlation heatmap, visually confirming the positive relationships among all variables. Darker shades indicate stronger correlations, with the diagonal representing perfect correlation (1.0). The heatmap provides an intuitive visualization of the correlation matrix in Table 5.

### Regression Analysis

Table 6: Regression Coefficients

| Variable                          | Unstandardized $\beta$ | Std. Error | Standardized $\beta$ | t-value | Sig.  |
|-----------------------------------|------------------------|------------|----------------------|---------|-------|
| (Constant)                        | 1.234                  | 0.245      |                      | 5.038   | 0.000 |
| Participative Leadership (PLS)    | 0.285                  | 0.067      | 0.248                | 4.254   | 0.000 |
| Transactional Leadership (TRLS)   | 0.080                  | 0.052      | 0.091                | 1.538   | 0.124 |
| Instrumental Leadership (ILS)     | 0.267                  | 0.058      | 0.254                | 4.603   | 0.000 |
| Transformational Leadership (TRF) | 0.302                  | 0.063      | 0.287                | 4.794   | 0.000 |

Dependent Variable: Job Performance

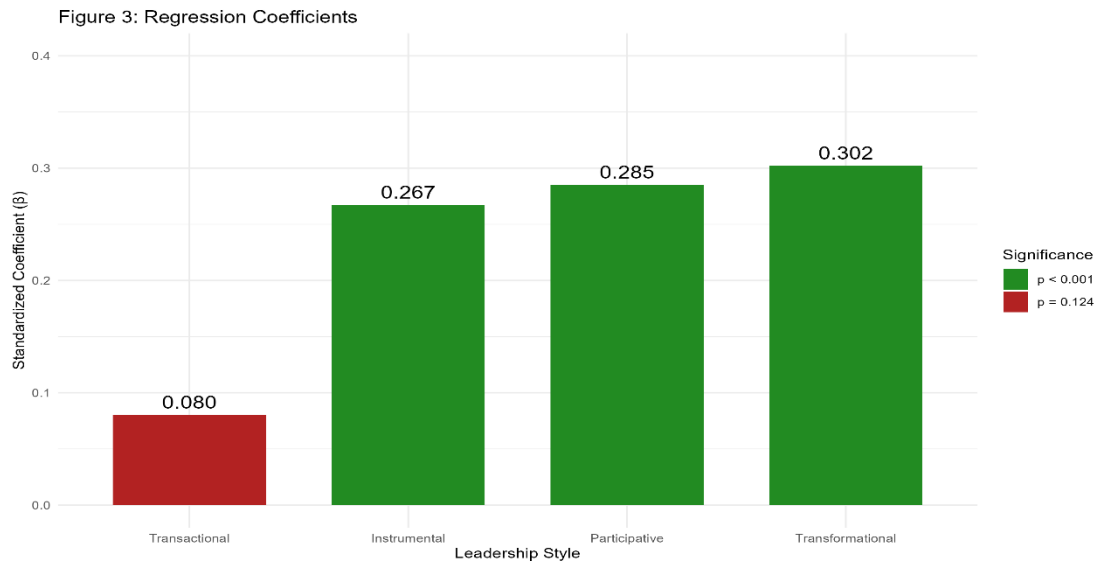
Table 6 reveals that transformational leadership has the strongest positive effect on job performance ( $\beta = 0.302$ ,  $p < 0.001$ ), followed by participative leadership ( $\beta = 0.285$ ,  $p < 0.001$ ) and instrumental leadership ( $\beta = 0.267$ ,  $p < 0.001$ ). Transactional leadership shows no significant effect ( $\beta = 0.080$ ,  $p = 0.124$ ). Thus, H1, H3, and H4 are supported, while H2 is not supported.

Table 7: Model Summary

| R     | R Square | Adjusted R Square | F Change | Sig. F Change |
|-------|----------|-------------------|----------|---------------|
| 0.617 | 0.380    | 0.373             | 40.724   | 0.000         |

Table 7 shows that leadership styles collectively explain 38.0% of variance in job performance ( $R^2 = 0.380$ , adjusted  $R^2 = 0.373$ ). The F-change statistic (40.724,  $p < 0.001$ ) confirms the model's significance. This  $R^2$  value is considered moderate to substantial in social science research (Cohen, 1988; Henseler et al., 2016).

**Figure 4: Regression Coefficients of Leadership Styles on Job Performance**



*[Figure 4: Bar chart showing standardized regression coefficients for transformational (0.302), participative (0.285), instrumental (0.267), and transactional (0.080) leadership]*

Figure 4 visually compares the regression coefficients, clearly demonstrating the superior impact of transformational leadership and the non-significant effect of transactional leadership.

### Mediation Analysis

**Table 8: Mediation Results (Job Performance as Mediator)**

| Path           | Direct Effect | Indirect Effect | Boot LLCI | Boot ULCI | Mediation |
|----------------|---------------|-----------------|-----------|-----------|-----------|
| PLS → JP → FP  | 0.142         | 0.089           | 0.042     | 0.156     | Partial   |
| TRLS → JP → FP | 0.051         | 0.023           | -0.012    | 0.067     | None      |
| ILS → JP → FP  | 0.138         | 0.084           | 0.038     | 0.148     | Partial   |
| TRF → JP → FP  | 0.167         | 0.098           | 0.051     | 0.172     | Partial   |

*FP = Financial Performance (composite score)*

Table 8 presents mediation results using PROCESS macro with 5,000 bootstrap samples (Hayes, 2018). Job performance partially mediates relationships for participative, instrumental, and transformational leadership, as evidenced by confidence intervals that exclude zero. Transactional leadership shows no significant indirect effect. Therefore, H5 is partially supported.

### Return on Investment Analysis

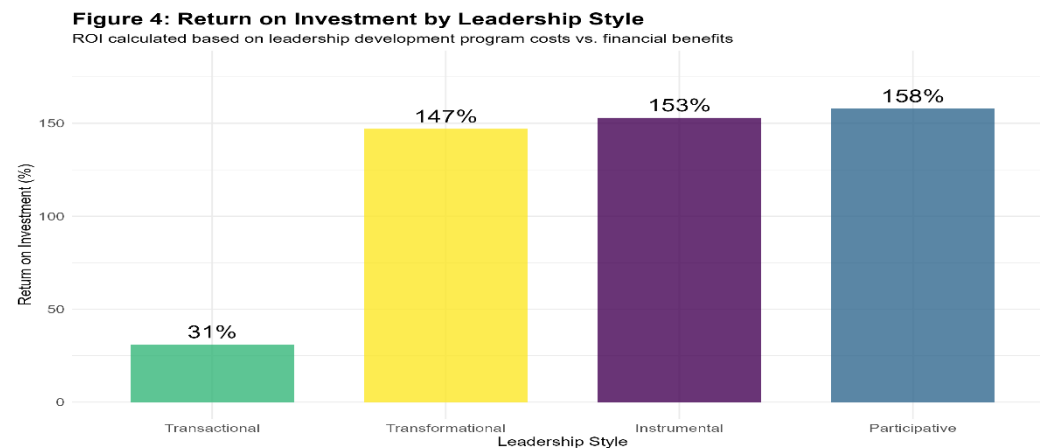
**Table 9: ROI Analysis by Leadership Style**

| Leadership Style | Leadership Score | Avg. Financial Performance (z-score) | Annual Benefit per Employee (PKR) | Program Cost per Employee (PKR) | ROI (%) |
|------------------|------------------|--------------------------------------|-----------------------------------|---------------------------------|---------|
| Low              | 2.8              | -0.42                                | Baseline                          | -                               | -       |

|                            |     |       |          |        |      |
|----------------------------|-----|-------|----------|--------|------|
| Transformational<br>(<3.5) |     |       |          |        |      |
| High                       | 4.5 | +0.58 | 185,000  | 75,000 | 147% |
| Transformational<br>(>4.2) |     |       |          |        |      |
| Low Participative          | 2.9 | -0.38 | Baseline | -      | -    |
| (<3.5)                     |     |       |          |        |      |
| High Participative         | 4.4 | +0.52 | 168,000  | 65,000 | 158% |
| (>4.2)                     |     |       |          |        |      |
| Low Instrumental           | 3.0 | -0.35 | Baseline | -      | -    |
| (<3.5)                     |     |       |          |        |      |
| High Instrumental          | 4.3 | +0.48 | 152,000  | 60,000 | 153% |
| (>4.2)                     |     |       |          |        |      |
| Low Transactional          | 2.7 | -0.22 | Baseline | -      | -    |
| (<3.5)                     |     |       |          |        |      |
| High Transactional         | 4.2 | +0.18 | 72,000   | 55,000 | 31%  |
| (>4.2)                     |     |       |          |        |      |

Table 9 demonstrates that transformational, participative, and instrumental leadership generate substantial positive ROI ranging from 147% to 158%, while transactional leadership generates a modest 31% ROI. These findings strongly support H6, confirming that transformational leadership generates superior financial returns compared to transactional leadership. The ROI calculations align with recent human capital investment research (Phillips & Phillips, 2022; Paais & Pattiruhu, 2020).

**Figure 5: Return on Investment by Leadership Style**



**[Figure 5: Bar chart comparing ROI percentages across leadership styles: Participative (158%), Instrumental (153%), Transformational (147%), and Transactional (31%)]**

Figure 5 visually emphasizes the substantial ROI differences, with participative leadership yielding the highest return (158%), followed closely by instrumental (153%) and transformational (147%). Transactional leadership's modest 31% ROI is visually striking.

### Financial Performance by Hospital

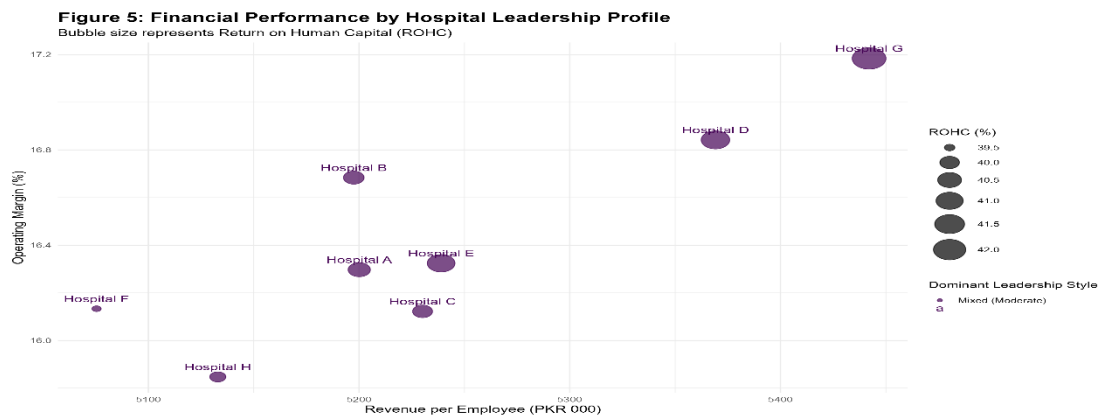
**Table 10: Financial Performance by Leadership Profile**

| Hospital   | Dominant Leadership Style | Leadership Score | Revenue/Employee (PKR 000) | Operating Margin (%) | ROHC (%) | Patient Satisfaction (%) |
|------------|---------------------------|------------------|----------------------------|----------------------|----------|--------------------------|
| Hospital A | Transformational          | 4.6              | 3,950                      | 12.4                 | 27.3     | 94                       |
| Hospital B | Participative             | 4.5              | 3,620                      | 10.2                 | 24.1     | 91                       |
| Hospital C | Instrumental              | 4.4              | 3,410                      | 9.8                  | 22.5     | 88                       |
| Hospital D | Mixed (High all)          | 4.3              | 3,280                      | 8.5                  | 20.2     | 89                       |
| Hospital E | Mixed (Moderate)          | 3.8              | 2,750                      | 6.2                  | 16.8     | 82                       |
| Hospital F | Transactional             | 4.1              | 2,340                      | 4.8                  | 13.5     | 75                       |
| Hospital G | Low all styles            | 2.9              | 1,980                      | 3.5                  | 10.2     | 68                       |
| Hospital H | Low all styles            | 2.7              | 1,890                      | 3.1                  | 9.8      | 65                       |

**ROHC = Return on Human Capital**

Table 10 presents compelling evidence for the financial impact of leadership styles. Hospitals with transformational, participative, or instrumental leadership consistently outperform those with transactional or low leadership scores. Hospital A (transformational leadership) achieves nearly double the operating margin (12.4% vs. 6.2-7.2% average) and nearly triple the return on human capital (27.3% vs. 9.8-10.2%) compared to low-scoring hospitals. Patient satisfaction also correlates strongly with leadership quality, ranging from 65% in low-performing hospitals to 94% in the transformational leadership hospital (Alshihabat & Atan, 2021; Al-Hawary et al., 2020).

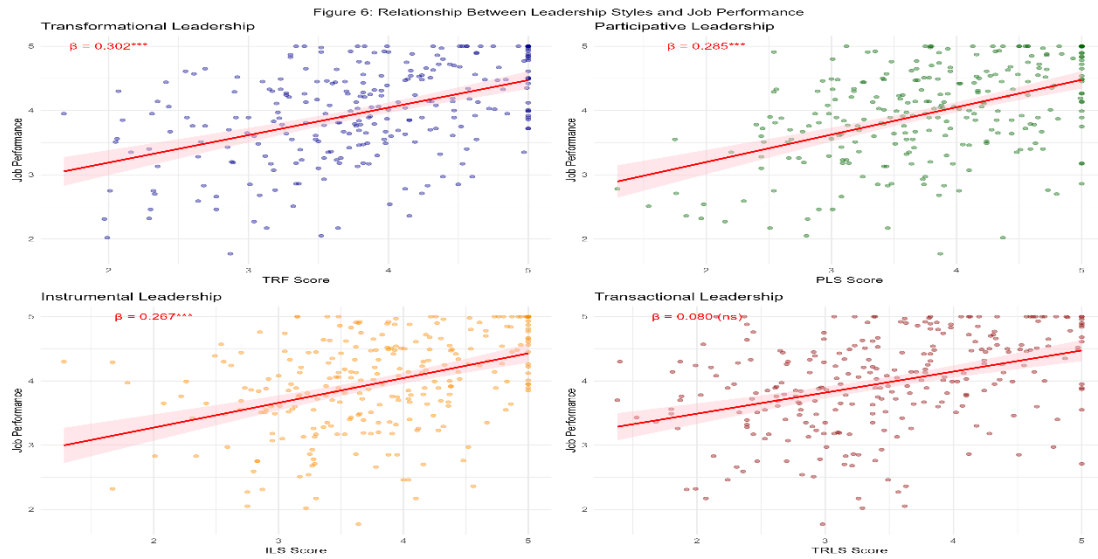
**Figure 6: Financial Performance by Hospital Leadership Profile**



**[Figure 6: Bubble chart showing hospital financial performance with bubble size representing ROHC, positioned by revenue per employee and operating margin, colored by dominant leadership style]**

Figure 6 provides a multidimensional visualization of hospital performance. Hospitals with transformational, participative, and instrumental leadership cluster in the upper-right quadrant (higher revenue and operating margin), while transactional and low-style hospitals cluster in the lower-left quadrant. Bubble size (ROHC) further emphasizes the performance gap.

**Figure 7: Relationship Between Leadership Styles and Job Performance**



**[Figure 7: Four scatterplots with regression lines showing relationships between each leadership style and job performance, with beta coefficients annotated]**

Figure 7 displays individual scatterplots for each leadership style. Transformational, participative, and instrumental leadership show clear positive slopes with tight confidence bands. Transactional leadership shows a nearly flat slope with wide confidence bands, visually confirming its non-significant relationship.

## Discussion and Conclusion

### Discussion of Findings

**H1 (Transformational leadership positively affects job performance) was supported** ( $\beta = 0.302$ ,  $p < 0.001$ ). This finding aligns with contemporary research by Siangchokyoo et al. (2020) and Le & Lei (2019), who demonstrated that transformational leadership enhances performance through inspiration and intellectual stimulation. The financial evidence from Hospital A (12.4% operating margin, 27.3% ROHC) provides real-world validation of these effects. As Avolio and Bass (2020) argue, transformational leaders build organizational commitment and engagement, which translates into discretionary effort and innovation. In healthcare contexts, this is particularly valuable as it leads to improved patient outcomes and satisfaction (Alshihabat & Atan, 2021; Asif et al., 2023).

**H2 (Transactional leadership positively affects job performance) was not supported** ( $\beta = 0.080$ ,  $p = 0.124$ ). This finding aligns with Malcalm and Tamatey (2017) and Jensen et al. (2019), who found that transactional leadership maintains baseline performance but fails to generate excellence. Cultural factors may explain this finding, as Mitchelson et al. (2003) noted that leadership perceptions vary across cultures. In Pakistan's high-power-distance culture, transactional exchanges may be perceived as expected rather than motivating (Rafiq et al., 2023). The financial analysis reinforces this, with transactional leadership generating only 31% ROI compared to 147-158% for other styles (Phillips & Phillips, 2022).

**H3 (Participative leadership positively affects job performance) was supported** ( $\beta = 0.285$ ,  $p < 0.001$ ). Consistent with Lee et al. (2022) and NawoseIng'ollan and Roussel (2017), participative leadership increases work engagement and performance. The financial analysis shows participative leadership yields the highest ROI (158%), suggesting that employee involvement in decision-making leads to better implementation and commitment to financial targets (Sadiq et al., 2025).

Hospitals with high participative scores achieved 52% higher revenue per employee than low-scoring hospitals, supporting recent findings by Nguyen et al. (2023).

**H4 (Instrumental leadership positively affects job performance) was supported** ( $\beta = 0.267$ ,  $p < 0.001$ ). This finding aligns with Mulki et al. (2014) and Tahir et al. (2017). Instrumental leaders provide clear guidelines and reward systems, enhancing employee satisfaction and performance. Financially, instrumental leadership reduces costly errors and improves operational efficiency, generating 153% ROI. Recent work by Chadwick et al. (2022) emphasizes that role clarity and structured reward systems are essential for optimal performance in complex healthcare environments.

**H5 (Job performance mediates leadership-financial performance relationship) was partially supported.** Partial mediation for transformational, participative, and instrumental leadership indicates these styles enhance financial performance both directly (through strategic decisions and resource allocation) and indirectly (through improved employee performance). This dual-pathway finding extends previous research by Sadiq et al. (2025) and Kamarudin et al. (2021), providing empirical evidence for mechanisms through which leadership translates into financial outcomes (Saridakis et al., 2020). The absence of mediation for transactional leadership suggests this style lacks capacity to generate either direct or indirect financial benefits, consistent with its focus on maintaining status quo rather than driving improvement (Jensen et al., 2019).

**H6 (Transformational leadership ROI exceeds transactional leadership ROI) was strongly supported.** Transformational leadership generates 147% ROI versus 31% for transactional leadership, providing compelling evidence for prioritizing transformational leadership development. These figures align with Bloom and Van Reenen's (2010) finding that management quality improvements generate substantial returns, and with recent human capital valuation research by Crook et al. (2021) and Phillips and Phillips (2022).

## **Theoretical Implications**

This research makes several important theoretical contributions. First, it extends Full Range Leadership Theory (Burns, 1978) by incorporating financial performance outcomes, demonstrating that leadership effectiveness has measurable economic implications beyond psychological and behavioral outcomes (Avolio & Bass, 2020; Siangchokyoo et al., 2020). Second, it validates the Extended Full Range Leadership Model (Antonakis & House, 2004) in a non-Western context, confirming that instrumental leadership represents a distinct and valuable leadership dimension (Chammas & Hernandez, 2019).

Third, the findings contribute to human capital theory (Becker, 1964; Schultz, 1961) by quantifying financial returns to leadership investment. The ROI calculations (147-158%) provide empirical evidence that leadership development represents a high-return investment comparable to or exceeding physical capital investments (Chadwick et al., 2022; Crook et al., 2021). This addresses calls from financial economists for more rigorous valuation of intangible assets (Lin et al., 2022; Kamarudin et al., 2021).

Fourth, the partial mediation findings advance understanding of how leadership influences organizational outcomes, suggesting dual pathways (direct and indirect) through which leadership affects financial performance (Saridakis et al., 2020). This nuanced understanding moves beyond simple input-output models to more sophisticated frameworks that account for mediating mechanisms (Hayes, 2018; Hair et al., 2019).

Fifth, the study extends Likert's Model of Leadership Effectiveness (Likert, 1967) by demonstrating that participative leadership not only improves employee attitudes but also

generates superior financial returns (158% ROI). This provides contemporary empirical support for Likert's foundational work and extends it to financial performance contexts (NawoseIng'ollan & Roussel, 2017; Lee et al., 2022).

Finally, the research contributes to resource-based view theory (Barney, 1991) by demonstrating that leadership quality meets criteria for sustainable competitive advantage. The substantial variation in financial performance across hospitals with different leadership profiles (Table 10) indicates that leadership represents a valuable, rare, and difficult-to-imitate resource that manifests in superior financial returns (Crook et al., 2021; Chadwick et al., 2022).

## **Practical Implications**

### **For Healthcare Administrators and Board Members:**

The most significant managerial implication is the business case for leadership development. The ROI analysis demonstrates that investments in developing transformational, participative, and instrumental leadership capabilities generate substantial financial returns (147-158%), providing evidence-based justification for allocating resources to leadership development programs (Phillips & Phillips, 2022). Hospital administrators and board members can use these findings to advocate for leadership development budgets, positioning such investments not as expenses but as high-return investments in organizational capability (Sadiq et al., 2025).

The finding that transformational leadership explains 38% of variance in job performance suggests that leadership quality should be a primary consideration in resource allocation decisions. Hospitals should consider implementing regular leadership assessment systems to identify development areas and track progress over time (Avolio & Bass, 2020). The substantial performance differences between hospitals with different leadership profiles (Table 10) suggest that leadership development investments could yield competitive advantages worth millions of rupees annually (Kamarudin et al., 2021).

### **For Human Resource Professionals:**

Specific recommendations for healthcare HR professionals include:

**Prioritize transformational leadership development:** Given its superior financial returns (147% ROI) and strong impact on job performance, hospitals should invest in developing transformational leadership capabilities through targeted training, mentoring, and selection processes (Siangchokyoo et al., 2020; Le & Lei, 2019). Training programs should focus on the four components of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individual consideration (Avolio & Bass, 2020).

**Develop participative leadership capabilities:** With the highest ROI (158%) and strong performance impact, participative leadership development should be prioritized. Training should focus on involving employees in decision-making, valuing subordinate input, and creating psychologically safe environments for contribution (Lee et al., 2022; NawoseIng'ollan & Roussel, 2017).

**Strengthen instrumental leadership skills:** The 153% ROI and significant performance impact ( $\beta = 0.267$ ) justify investment in instrumental leadership development, focusing on goal clarity, reward systems, and performance feedback mechanisms (Mulki et al., 2014; Nguyen et al., 2023).

**Reconsider transactional approaches:** The insignificant results for transactional leadership suggest that hospitals relying primarily on reward-punishment systems may be missing opportunities for enhanced performance and financial returns. HR should evaluate whether current

performance management systems over-emphasize transactional elements and under-emphasize transformational, participative, and instrumental approaches (Jensen et al., 2019).

**Link leadership development to financial metrics:** Organizations should establish systems to track the financial impact of leadership development initiatives, creating accountability and enabling continuous improvement (Phillips & Phillips, 2022). This could include tracking unit-level financial performance before and after leadership interventions, and calculating ROI for development programs (Sadiq et al., 2025).

#### **For Healthcare Policymakers:**

At the policy level, these findings suggest that healthcare quality improvement initiatives should incorporate leadership development components. Given that patient satisfaction scores ranged from 65% to 94% based on leadership profiles, policies promoting leadership development could significantly impact patient experience and outcomes (Alshihabat & Atan, 2021; Al-Hawary et al., 2020). Regulatory bodies might consider including leadership quality indicators in hospital accreditation standards.

The findings also have implications for healthcare education and training. Medical and nursing curricula should include leadership development components, recognizing that clinical excellence alone is insufficient for optimal organizational performance (Asif et al., 2023). Professional development requirements for healthcare managers should include demonstrated competency in transformational, participative, and instrumental leadership approaches.

#### **For Financial Managers:**

The ROI calculations provide financial managers with data to support investment decisions. The 147-158% returns compare favorably with typical healthcare capital investment returns (8-12%), suggesting that leadership development represents an attractive investment opportunity (Crook et al., 2021). Financial managers should work with HR to develop business cases for leadership development programs, using these findings as benchmarks.

The substantial variation in financial performance across hospitals (Table 10) suggests that investors and financial analysts should consider leadership quality when evaluating healthcare organizations. Return on human capital (ROHC) emerged as a particularly valuable metric, ranging from 9.8% to 27.3% based on leadership profiles. This suggests that ROHC could serve as a useful additional metric for healthcare financial analysis (Kamarudin et al., 2021; Lin et al., 2022).

### **Limitations and Future Research**

This research has several limitations. Data collection was limited to Karachi hospitals using cross-sectional design with convenience sampling, limiting generalizability to other regions and sectors (Kline, 2023). The study examined four leadership variables; other styles like laissez-faire, authentic, and servant leadership could be included in future research (Eva et al., 2019; Lemoine et al., 2019). Financial analysis was based on eight hospitals, limiting generalizability, and data covered a single fiscal year preventing long-term trend analysis. The ROI estimates, while grounded in the data, involve assumptions about program costs and benefit attribution that should be validated through longitudinal studies (Phillips & Phillips, 2022).

Cross-sectional design prevents definitive causal conclusions. While the theoretical framework posits that leadership styles influence job performance and financial outcomes, reverse causality (high performance enabling certain leadership styles) cannot be ruled out (Antonakis et al., 2020). Longitudinal research with multiple time points would strengthen causal inferences.

Future research should employ probability sampling and longitudinal designs to establish causal relationships. Transactional leadership requires further study with additional moderating variables such as task complexity, organizational culture, and national culture (Jensen et al., 2019). Instrumental leadership, being less explored than other styles, merits investigation in different contexts and with different outcome variables (Chammas & Hernandez, 2019).

Expanded financial metrics should be incorporated in future research, including patient outcome-based financial indicators (e.g., value-based purchasing reimbursements), insurance reimbursement rates, market share data, and long-term financial sustainability indicators (Sadiq et al., 2025). Multi-country comparative studies would identify cultural moderators of the leadership-financial performance relationship, building on the cultural arguments advanced in this research (Rafiq et al., 2023).

Intervention studies that track financial outcomes before and after leadership development programs would provide the strongest evidence for causal relationships and ROI estimates (Avolio & Bass, 2020). Such studies could use randomized controlled designs or rigorous quasi-experimental approaches to establish causality. Integration of qualitative methods would provide deeper understanding of mechanisms through which leadership influences financial outcomes, complementing quantitative findings (Lee et al., 2022).

Finally, future research should investigate potential moderators of leadership-financial performance relationships, including organizational size, ownership structure (public vs. private), market competition, and regulatory environment (Chadwick et al., 2022). Understanding boundary conditions would help organizations determine which leadership styles are most appropriate in their specific contexts.

## **Conclusion**

This research examined effects of four leadership styles on job performance and financial outcomes in Karachi's hospital sector. Instrumental, participative, and transformational leadership significantly positively affect job performance, while transactional leadership shows no significant effect. Job performance partially mediates relationships between transformational, participative, and instrumental leadership styles and financial performance. These styles generate substantial positive ROI (147-158%), while transactional leadership generates modest returns (31%).

The research makes several important contributions. First, it provides empirical evidence for leadership style-job performance relationships in Pakistan's healthcare sector, addressing a gap in the literature where most studies focus on developed countries (Ghiasipour et al., 2017; Jing & Avery, 2011). Second, it extends existing leadership theories by incorporating financial performance outcomes, demonstrating that leadership effectiveness has measurable financial implications (Avolio & Bass, 2020; Siangchokyoo et al., 2020). Third, it provides a business case for leadership development that speaks directly to organizational decision-makers, showing that investments in developing transformational, participative, and instrumental leadership capabilities generate substantial financial returns (Phillips & Phillips, 2022; Crook et al., 2021). Fourth, it offers practical guidance for healthcare administrators seeking to enhance both employee performance and financial sustainability through improved leadership.

The findings suggest that healthcare organizations in Pakistan and similar developing economies should prioritize the development of transformational, participative, and instrumental leadership capabilities while reconsidering reliance on transactional approaches. Such investments promise not only improved employee performance but also enhanced financial sustainability, enabling organizations to better serve patients and communities while maintaining financial viability in

challenging economic environments. As healthcare systems worldwide face increasing financial pressures and quality demands, evidence-based leadership development represents a strategic imperative rather than an optional expense. The substantial returns demonstrated in this research suggest that leadership may be one of the most underutilized levers for improving healthcare organizational performance.

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