

THE IMPACT OF LEADERSHIP STYLES ON INNOVATION IN HEALTH SERVICES

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ABSTRACT

The present study seeks to advance the understanding about the applicability of the leadership concept within the framework of innovation in the health system of Khyber Pakhtunkhwa, Pakistan. The qualitative findings helped in constructing and refining the theoretical model being used as a guideline for the field study. A huge body of knowledge is documented on the concepts and dynamics of leadership styles. Both the Transformational (human/leader-orientation) and Transactional (traits/task-orientation) leadership theories and styles are main components of current study. The population consists of the selected districts of Khyber Pakhtunkhwa, Pakistan. From the same population, data was collected from a sample of 204 health professionals. The empirical findings are interesting in the sense that both common and surprising results are visible from all the statistical analysis starting from descriptive to testing of hypothesis using correlation and regression as the major tools for analysis.

Keywords: *Leadership Styles, Innovation, Health Services*

INTRODUCTION

In Pakistan, the health sector continued to be neglected at both practitioners and policy/ decision-makers levels. Health sector plays a pivotal role in maintaining and building a healthy human capital, a sine-qua-non for socio-economic development of a society. The ramshackle state of health departments in Pakistan, at present, is reflected by the dilapidated health standards of entire nation and consequently its decrepit productivity indices. The responsibility of this neglect ultimately falls upon the shoulders of all concerned authorities at the helm, namely the leadership. Unfortunately, today's leadership in healthcare system is beleaguered by the outdated and traditional leadership practices, such as leader-centricity, linear thinking, and poor readiness for innovation (Zakeer, Munnawar, Irfan, 2014). There is an ardent need to conceive, plan and implement certain well-concerted measures to the grade of innovations to bring the whole system out from the cleavages of status quo marked by insensitivity, incompatibility and apathy.

The achievement and success of health systems and programs need complex matching of the conflicting interpretations and worries of the many stakeholders. The physicians

and doctors raise their own concerns about the induction of new technology; as they fear that these novel e-health systems are imminent threats to their professional status and independence (Anderson & McDaniel, 2000). The patients often raise their eyebrows for the potential benefits of the e-health technology regarding their safety and the issues of privacy. On the part of the health professionals, the new applications must be introduced to bring real improvements in the patient care (Atkinson, Spurgeon, Clark & Armit, 2010). The fulcrum of the success of all these innovative measures rests upon the dexterity of the leadership and smooth, uninterrupted and timely delivery of all the health services to the segment of society in need of healthcare (Blumenthal, Bernard, Bohnen & Bohmer, 2012).

The majority of leadership researchers and scholars conceptualize and carry out studies in the developed states whereas, limited understanding of the current dynamics of leadership concepts are available in non-western contexts (Amabile, Schatzel, Moneta & Kramer, 2004). Such researches enhance understanding of the validity and efficacy of western leadership models in non-western contexts and help identifying different dimensions of leadership towards improvement in the domains of both, the practice and development of leadership skills (Bodla & Hussain, 2008). The contemporary competitive landscape is being driven by globalization, hyper-competition, technological revolution, price and customer satisfaction and extraordinary focus on quality, demanding an increased emphasis and recognition on innovation, being a strategic competence. The investigation of the relationship between innovation and leadership is very relevant as leaders positively impact outcomes of innovation processes (Khan, Naeem & Riaz, 2013).

The Problem Statement

The impact of manager-administrator leadership styles are well-documented across the literature, however, the role changes with the change in context. In this study, the researcher has explored the link between leadership styles and innovative health services in the context of a developing country (Pakistan) by examining the work environment of District level Hospitals in Khyber Pakhtunkhwa.

Objectives of the Study

- To explore the concept of leadership styles and their impact on innovative health services.
- To test the hypothesis about the relationship between the related variables.
- To gain command over different qualitative and quantitative research tools and techniques (research methodology).

- To develop a customized model of the issue in the heading.
- To have the numeric data about the individual roles of leadership, innovation and the service providers at all of the levels: total sample, group and individual.

Research Hypotheses

The theoretical model extracted from the literature gives 7-Hypotheses to be tested through statistical procedures. H1 is about the Association, 2a & 2b examine the prediction process while from H3 through H6 are to test the mean differences between the groups created from the demographic variables in the study:

1. All the Predictors are significantly associated with the Criterion Variable (H₁).
2. The Research Variables Explain Variation in the Criterion Variable (H₂).

LITERATURE REVIEW

The Leadership

Leadership is one of the most frequently used terms in entire spectrum of human activities in today's competitive world. The concept of leadership entails numerous theories, concepts, dimensions and shades and more than 130 definitions of leadership exist in literature. Study of the literature related to management and literature characterizes leadership as collective, purposeful, causative, morally evocative concept that is transformational in perspective and diverse in existence (Bodla & Hussain, 2008). Traditional status quo oriented organizational structures are being substituted by the dynamic, creative and innovative system that will enable them sustain in an increasingly challenging economic environment (Khan, et al., 2013).

Though the transactional and transformational leadership styles are broadly validated in business and industry, however, the empirical validity of leadership styles is yet to be evaluated among physician managers in Pakistan's context. Developing effective leadership among physician executives is imperative due to the need of professional leaders in the diffusion of clinical innovation (Atkinson, et al., 2010). The related literature revealed that leadership level of medical directors, predicts the clinics achievement of outcome improvement, which directly reflects the medical directors' competence in directing service providers the patterns towards scheduled organizational clinical goals. The incorporation of innovation into healthcare organizations is a social process directed at developing new practices, processes, products, and services to improve quality and reduce costs (Blumenthal, Bernard, Bohnen & Bohmer, 2012).

Transformational Leadership

Transformational leadership links with positive outcomes on individual as well as organizational levels. A transformational leader emboldens followers to attain higher-order needs like self-actualization, self-esteem and is influential in surging followers' motivation in the direction of self-sacrifice and achievement of organizational goals over personal interests (Jung, Wu, & Chow, 2008). Inspirational motivation affords a cradle of encouragement and challenges followers to achieve the set goals, whereas, intellectual stimulation inspires followers to be more creative and innovative in their problem-solving skills (Midodzi, Wong & Estabrooks, 2010). Leadership styles, however, do not embrace all of the factors that influence innovation. The literature revealed that leadership style alone could not be linked to patient mortality. Instead, the researchers examined that when the organization had associated and consistent organizational culture, patient mortality was on downward trajectory (Ryan & Tipu, 2013).

Transactional Leadership

Transactional leadership style comprises three components; contingent reward, management-by-exception (active) and management-by-exception (passive). A transactional leader follows the scheme of contingent rewards to explain performance expectation to the followers and appreciates good performance. The literature revealed that the transactional style retards creativity and can adversely influence employees job satisfaction (Xirasagar, 2008). The application of both styles varies from situation to situation and context to context. The situations entailing high degree of precision, technical expertise, time-constraints, particularly in technological intensive environment, we shall prefer transactional leadership whereas, in human-intensive environment, where focus is on influencing the followers through motivation and respecting their emotions on the basis of common goals, beliefs and values, preferable option is transformational leadership style (Dickson, Tholl & Phsi, 2012).

The Organizational Innovation

Organizational innovation can be defined as the development of useful and valuable new products or services or processes or practices within an organizational framework. The organizational innovation is the propensity of the organization to create new or improved products or services and its success in bringing those products or services for benefit of the consumers (Shin & Zhou, 2003). Innovation embraces diverse administrative tools such as novelty, creativity, research and the organizations' propensity to support novel ideas for attaining competitive advantage in a dynamic environment. The innovation, primarily, is based on ideas that are developed, transmitted and transformed by individuals (Axtell, Holman & Wall, 2006).

The researchers considered innovation as a set of behaviors whereas in accordance with innovation theory, innovation encompasses not only idea generation but also idea implementation. Innovation is generally classified as product innovation and process innovation. In certain cases, it has been categorized as incremental and radical innovation (Imran & Anis, 2011). The innovative capacity of employees is vital for creating and maintaining competitive advantage, quality management and continuous improvement practice. The individuals cannot innovate in isolation; supportive leadership and climate are fundamental essentials for an innovative employee (Ramendra, Thakura, Sonya, Hsub, 2012).

The Health System and Services

The health sector is facing numerous problems to be handled with certain innovative measures and result-oriented transformations. Firstly, the financial allocation for the health sector is already below the basic requirements of the hospitals. Secondly, there is dearth of qualified and skilled doctors and the paramedics, who are the fundamental components of the health sector. Moreover, the doctors pursue the private practice during the duty hours which directly affects those patients who cannot pay their visiting fee (Caldwell, Chatman, O'Reilly, Ormiston & Lapiz, 2006). Advanced technology, modern equipment, machines and instrument and sophisticated prognostic and diagnostic systems are either not available or are dysfunctional or could not be installed lacking skilled operators or maintenance facilities. Unprecedented growth and hardship in obtaining necessary resources have plagued the healthcare industry with rising costs, staff shortages, losses in productivity, inefficient systems that create waste and customer dissatisfaction (Jung, Wu & Chow, 2008).

Organizational friction and professional jealousy are the major impediments toward change. The healthcare industry is considered as complex, fragmented, turbulent, and tightly coupled. Hospital CEOs are required to be adept at leadership behaviors (Swanwick & McKimm, 2011). In certain cases, the executive leadership lacks charisma and inspirational motivation to influence the subordinates to absorb the change. On the part of the political leadership, it is mandatory to legislate accordingly to bring all the anomalies and misappropriation under the umbrella of law and justice whereas, leadership at executive level is required to streamline the practices and processes deploying modern technical, management and leadership skills so that comprehensive innovation in health services is realized (Blumenthal, Bernard, Bohnen, & Bohmer, 2012). In health services sector, at places technical innovations are deficient and at places managerial innovation are invisible. Resource constraints

albeit, several issues faced by the sector today can be effectively managed by the physician leadership, through application of innovative solutions.

RESEARCH METHODOLOGY

Approach

The survey is based on extensive consultation of the existing literature dealing with leadership and innovation particularly in health sector and field study incorporating input from the individuals forming sample. However, practically it appears impossible to study the whole range of literature. Moreover, there was also no requirement to go through the voluminous literature, since aim was achievable even without that protracted effort. The study was exploratory cum testing of hypothesis based on literature review and field testing.

Population & Sampling

The universe or population is the entire group of items in which the researcher is interested and wishes to plan to generalize. Population is a gathering of all the elements which the researcher studies in order to draw conclusions and take decisions (Levin, 1984). In this research project, the population of interest consisted of all the health professionals from the Districts Dera Ismail Khan, Tank, Lakki Marwat, Bannu, Kohat, Mardan and Pashawar, of Khyber Pakhtunkhwa province of Pakistan. About a large group, a common practice is the sampling and on the basis of a small portion or sample, everybody is used to draw conclusions (Boyd et al., 1977. p. 301).

Data Collection Methods

Literature Survey

An extensive study of literature comprising quality research journals, periodicals, essays, books and documented resources in public library and HEC website related to leadership styles, innovation and health services has been conducted by the researcher since lacking this primary orientation, no research study can be commenced nor should one be undertaken without knowledge of the research that has already been done in the field (Goode & Hatt, 1952, p. 103).

Field Survey

From the wide literature survey, a designed instrument (questionnaire) was organized by first taking out the variables and their attributes. The questionnaire included the demographic and research variables. There were four (4) demographic variables whereas the research variables are the leadership, innovation and the health services.

To record the responses, a 5-point Likert scale was used. About 204 questionnaires were distributed, however, despite a lot of hard work, the researcher succeeded in recollecting only 185 filled questionnaires thereby getting a return rate of 90.68%.

Tools for Data Analysis

Descriptive Tools: The examples of descriptive statistics are the graphs, charts and tables that display data so that they are at ease to realize (Levin, 1984, p. 4) thus, to represent descriptive data, the researcher has used different charts and tables about the respondents input along with the variables used to examine the attitude of the respondents.

To test the hypotheses, the researcher has also used inferential tools. To test the hypothesis, about the relationships between the researches variables, multiple tools have been applied, the demographic attributes of the respondents as well as the relations between the researches variables themselves. Following tools have been applied:

1. Correlation analysis
2. Regression analysis (Multiple Regression & Stepwise-Regression)
3. Tests of significance

FINDINGS OF THE STUDY

Descriptive Findings

Table 4.1 Cross-Tabulation of Gender & Designation

		Gender		Total
	Groups	Male	Female	
Designation	Medical Officer	58	14	72
	Senior Medical Office	28	29	57
	Principal Medical Office	35	21	56
Total		121	64	185

Table 4.2 Descriptive Statistics on Research Variables

	N	Min	Max	Mean	Std. D
Transformational leadership Style	185	1.27	5.00	3.0551	.70242
Transactional leadership Style	185	1.80	4.50	3.5319	.47835
Innovation in Health Services	185	1.62	4.77	3.3709	.61201
Experience	185	1	35	14.91	9.336
Age	185	4	60	42.07	10.236

Testing of Hypotheses

Association-Analysis

Hypothesis 1: Predictors are significantly associated with Criterion Variable (H₁).

Table 4.3 Table of Correlations

		Transformational	Transactional	Innovations	Exp
Transactional Leadership	r	.378**	1		
	p	.000			
Innovations in Health	r	.680**	.519**	1	
	p	.000	.000		

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

Analysis

In social sciences acceptable R is equal to 0.3. Any value below or equal to 0.3 will be ignored. Thus, in case R is ignorable, P will also be ignored.

1. *Association transformational leadership Style with Innovation in Health Services.* R value is 0.68 with P value as .000, which is a powerful value with high level of significance, thus, have applicability on parameters. 0.6 is therefore, is no more a mere statistic but a parameter that is informed not about sample but also population. Hypothesis proved by our test.
2. *Association transactional leadership Style with Innovation in Health Services.* R value is 0.519 with P value as .000. This value is again powerful but lesser than previous case. The difference indicates that transactional leadership is less correlated or relatively weakly correlated with Innovation in Health Services viz-a-viz transformational style.
3. Transformational Style is hence, more popular than Transactional Style, therefore, is widely practiced in health services, particularly in context of innovation in health services.

Prediction-Analysis

Hypothesis 2a: All predictors Explain Change in the Criterion Variable. H_{2a}

Table 4.4a Model Summary of Regression (Research & Criterion Variable)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.743	0.552	.542	.41433	55.364	.000

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.406	.305		1.330	.185
	Transformational Leadership Style	.485	.047	.556	10.246	.000
	Transactional Leadership Style	.398	.069	.311	5.766	.000

Analysis

Here Cause and effect in respect of Leadership viz-a-viz Innovation in Health services is being evaluated. It actually determines that how far the variation in leadership styles (from Transformational to Transactional or vice versa) can bring change in Innovation in Health Services. While conducting Statistical Analysis, three tables appear (Model Summary, ANOVA and Coefficient). We just need Model Summary and Coefficient of Regression here.

1. *Model Summary*: R is multiple-correlations, representing association of all Independent Variables with Dependent Variable. R² (R Square) is coefficient of determination (collective effect). Value .552 indicates that 55% change in innovation is due to these 4 variables.
2. *Coefficients of Regression*: It is verified that age and experience have no role whatsoever, on explaining change in innovation. It authenticates the findings of Correlation Evaluation (H1) since these variables have no role in H1 as well.

DISCUSSIONS

Every study starts with a search for a theoretical framework available in the literature guiding about the components and their relationships to create the theoretical story behind the topic. In the current study the researcher initiated with an inquiry into the leadership-styles and the theories behind to construct a theoretical model of the most contemporary leadership styles emerging from the latest research.

A long list of theories is documented along with scholarly criticism and debates. A general analysis of all these theories generates the understanding that all the advocates of theories are taking the issue in their respected context or time in history. Furthermore, they are just prioritizing the components of theories and not presenting a new theory in strict sense rather using a new name for their ID. Most of the theories are rich and stand on three broader dimensions of the issue: Leader/Person, Leadership-Traits and the Context/Contingency requirements of every particular situation where a leader is supposed to operate.

Transactional and transformational theories and styles are well-established through both qualitative and empirical studies as the most reality-based and comprehensive classification and version of leaders as per their styles. These theories subsume all the leading attributes of traditional models with a view to accepting every critical concept of each theory. At the same time, it should also be noted that there is difference of degree and not of kind between transformational and transactional views/styles of leaders. Transformational leaders are those who use this style more frequently than the transactional leaders and vice versa.

Transactional leader is more Trait-Oriented in the sense that he/she strives to abide by the rules and regulations or go by the book to express exactly those leadership traits which are expected from him/her as an officer-leader. Furthermore, transactional leader considers only that part of the context/contingency which is allowed by the rules. Transformational leader, on the other hand, is more human and contextual leader and the follows the book as a part of his/her duties. This is a flexible style as compared to the transactional leadership

Logically, there seems greater and closer affinity between the transformational leadership and innovative health system and services. Innovation begins with creativity to generate new ideas which are then transformed into real products or services for public. A transformational leader is characterized by charisma and inspirations which are the real boosters for innovative attitude. A transformational

leader constantly seeks for the better and improved tools and techniques, professionalism, management-employee relations and work environment. It is however, very interesting that in our empirical study, both transformational and transactional leaders have significantly supported “innovations in health system/service” but difference is still discernible between the two styles in the backdrop of innovation. The correlation between transformational leadership style and innovative health services is 0.680 while it is 0.519 between the transactional style and dependent variable.

CONCLUSION

From both the qualitative and quantitative processing of the mustered facts and figures on the issue under-study, following conclusions [evaluations, judgments] have been drawn:

- All the theories of leadership and leadership-styles are neither right nor wrong rather are different views of reality.
- Every theory can be effective provided it is compatible with the situation where a leader has to operate.
- Transformational and transactional leadership theories encapsulate all the leading attributes of all well-known theories given in the existing body of knowledge.
- Both transformational and transactional styles are indispensable for every single organization including Health Sector.
- Both transformational and transactional leaders support innovations in health care system and services.
- In practice, a mesh of both styles is used by changing the mode as per situation. It is very commonly known among the management researchers that all the managers spend 70+ of their time in Communicating with Others thereby sparing 30% of time to rest of the functions. Communication (both verbal and written) is a transformational activity, while remaining managerial functions are purely technical, task-oriented. Other than communication needs transactional attitude than transformational treatment.
- Transformational leaders use big picture so they are good at the top levels of management while transactional leaders can better perform at the technical domains so uses comparatively smaller but compact picture of the situation to manage and lead.

REFERENCES

- Atkinson, S., Spurgeon, P., Clark, J., & Armit, K. (2010). *Enhancing Engagement in Medical Leadership, Lessons from Highly Engaged Trusts*. Coventry: Institute for Innovation and Improvement, University of Warwick Campus.
- Axtell, C., Holman, D., & Wall, T. (2006). Promoting innovation: A change study. *Journal of Organizational and Occupational Psychology*, 79(3), 509-516.
- Blumenthal, D. M., Bernard, K., Bohnen, J., & Bohmer, R. (2012). Addressing the leadership gap in medicine: Residents' need for systematic leadership development training. *Academic Medicine*, 87(4), 513–522.
- Bodla, M. A., & Hussain, G. (2008). Followers' Needs and Leadership Styles: An Empirical Fit among Banking Professionals of Pakistan. *International Journal of Global Business*, 2 (2), 61-80.
- Boyd, H. W., Westfall, R., & Stasch, S. F. (1977). *Marketing research: Text and cases*. 4th ed. *Richard D. Irwin, Inc.*
- Caldwell, D. F., Chatman, J., O'Reilly, C. A., Ormiston, M., & Lapiz, M. (2006). Implementing strategic change in a health care system: The importance of leadership and change readiness. *Health Care Management Review*, 33(2), 124–133.
- Caldwell, D. F., Chatman, J., O'Reilly, C. A., Ormiston, M., & Lapiz, M. (2006). Implementing strategic change in a health care system: The importance of leadership and change readiness. *Health Care Management Review*, 33(2), 124–133.
- Dickson, G., Tholl, B., & Phsi P. (2012). Leadership in Health Systems Redesign: A Partnership in Health Systems Improvement Project (PHSI). Presentation at the 2012 National Health Leadership Conference, Halifax, N.S.
- Goode & Hatt. (1952-103). *Methods in social research*, McGraw- Hill Kogakusha.
- Imran, R., & Anis, M. H. (2011). Mediating Effect of Organizational Climate between Transformational Leadership and Innovative Work Behavior. *Pakistan Journal of Psychological Research*, 26 (2), P- 183-199.
- Jung, D., Wu, A., & Chow, C. W. (2008). Towards understanding the direct and indirect effects of CEOs' transformational leadership in firm innovation. *The Leadership Quarterly*, 19, 582 – 594.
- Khan, M., Naeem, A., & Riaz, M. (2013). Leadership styles as predictors of innovative work behavior. *Pakistan Journal of Social and Clinical Psychology*, 9 (2), 17-22.
- Levin, R. I. (1984). *Statistics for management*. 3rd ed. *Prentice-Hall*.
- Ramendra., Thakura., Sonya, H. Y., Hsub, G. F. (2012). (Innovation in healthcare: Issues and future trends ☆ *Journal of Business Administration*, Vol 65, Issue 4.
- Ryan, M. J. (2004). Achieving and sustaining quality in healthcare. *Frontiers of Health Services Management*, 20, 3-11.
- Swanwick, T., & McKimm, J. (2011). What is clinical leadership...and why is it important? *The Clinical Teacher*, 8(1), 22–26.
- Weiers, Ronald. M. (1984). *Marketing research*. *Prentice Hall Inc. Englewood Cliffs, New Jersey*.
- Zakeer, A. K., Munnawar, N. K., Irfan, U. K. (2014). The impact of Leadership Styles on Innovation in the Health Services. *Public Policy and Administration Research*, 4 (11), p- 78-84.