

Health Care Strategy and its Impact on Quality of Health Services in India

Atul Dattatraya Ghate¹, Mariyam Ahmed²

¹Professor, Department of Management, Kalinga University, Raipur, India. Email: ku.atuldattatrayaghate@kalingauniversity.ac.in ORCID:0009-0009-0869-2957

²Assistant Professor, Department of Management, Kalinga University, Raipur, India. Email: ku.mariyamahmed@kalingauniversity.ac.in ORCID: 0009-0006-7541-3557

KEYWORDS

ABSTRACT

Health, Health care, private sector, public sector The health care industry operates in a very dynamic environment, particularly in the modern era. The introduction of technology has led to a significant advancement in the medical area. The entire environment in which the medical industry today functions has changed as a result of this infusion. Modern medical technology used to treat patients improves the reputation of the hospital. Technology is employed in the hospital's management as well as in its treatment. Hospital operations can be managed more effectively and successfully with the use of automation solutions. Modern technology is available at private hospitals, and it has been seamlessly incorporated into the medical industry. The private sector has always been at the forefront of implementing cutting-edge medical technologies and providing patients with top-notch care. This survey revealed a similar trend, with the private sector coming in first, then trust-run hospitals, and finally private clinics. Public hospitals in India have taken note of this aspect as well and are actively putting plans into place to introduce the necessary technology for hospital management and treatment.

1. Introduction

The development of the nation's economy is significantly influenced by health, both directly and indirectly. Labour productivity shows the direct impact of health, and the incentive effect shows the indirect influence. There is a positive correlation between labour productivity and health; the healthier individuals a nation has, the faster its economy is growing. The incentive effect includes the impact of health on life expectancy as well as an increased likelihood of investing in education and making a stronger contribution to the job market. The country's workforce's level of education is directly correlated with economic growth. A ten percent improvement in adult survival rates results in a 6.7% increase in labour input per worker and a 4.4% rise in GDP per worker [1]. A major suggestion in the Growth Report (Commission on Growth and Development, 2008) is to support children's early cognitive development, health, and nutrition. A person's lifetime earnings and health could result from these initial investments. The paper also included a 35-year longitudinal study conducted in Guatemala, which found that males who received protein supplements during the first two years of the study made 46 percent more money on average than men who took calorie-based supplements. Hence, financial investments in health increase income and productivity [2]. Health is defined as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" in the constitution of the World Health Organisation (WHO) [15]. India is one of the Alma Ata signatories [9]. As a signatory nation to the World Health Organisation (WHO) and the United Nations (UN), it affirms its commitment to achieving the MDGs and the objective of "health for all." The health sector is one of its top priorities as a result. India's health status is still up for debate and is a dismal measure of overall health. India's economy is rising quickly, but the country's health is not being well-served by the subpar healthcare services provided by the country's diverse healthcare sector, which includes public, private, and traditional medicine. Therefore, an intervention in the shape of a health care plan is required to help the economy reach the health target at a speed commensurate with the growth of the economy [3].

2. Literature Review

To make public health services more accessible, [17] made a number of suggested modifications and fixes. The majority of the study concentrated on the urgent need to enhance infrastructure, decrease waiting times, improve inpatient quality, and expand physical access to patients across the Indian states that make up the Empowered Action Group [13]. As a result, the study came to the crucial conclusion that public health services could compete with those in the private sector if they concentrated on these



areas of development [4]. According to [5], there is a critical need to educate the public and academic community about the objective assessment of the "shared governance" concept, which can be further explored for the creation and advancement of policy [11]. The study also highlighted the possible need for research to be focused on context-specific evidence of its impact on the health system as a whole, with a focus on efficiency, community involvement, workforce management, and the calibre of healthcare services [16]. Quality improvement (QI) was defined as "the sum of all activities that create desired changes in the quality" in [19]. The study looked at this and found that a QI system that works results in a steady improvement in the standard of care [6]. The study's insightful finding was that a health care facility's effectiveness is determined by its quality indicators. As a result, the study was able to assess how QI activities affected surgical intensive care unit (ICU) outcomes [8].

In light of the current study, an attempt is made to read and evaluate academic material that could serve as a pertinent foundation for both an empirical and theoretical investigation [14]. The health care industry is known to have numerous gaps in its management and administrative practices, rules, processes, and content, as evidenced by the research [7–12]. The literature study mentioned above paints a picture of how most health sector research is either limited to clinical research or focuses solely on patient satisfaction or views of healthcare organisations' service quality [18]. Additionally, it is discovered that there isn't much material available from a strategic standpoint. Thus, an effort has been made to examine the healthcare system from a strategic standpoint through this research study [10]. The current study attempts to close this gap by providing a wide range of options for choosing and comprehending healthcare tactics. Few studies have attempted to compare the tactics and offerings of private and public health players, as the literature study has concluded. Consequently, a sincere attempt has been made to identify the flaw in the healthcare system by evaluating the healthcare providers through this comparison study in order to ascertain how patients and healthcare professionals see hospitals. Ultimately, the goal of the study is to examine how healthcare initiatives affect the calibre of medical care. By offering a blueprint for enhancing the state's health care system, the study also offers insight into strategic improvement. This research focuses on identifying health care methods, analysing health system issues, and developing appropriate plans of action to address them. This work's primary goal is to

- 1. To determine the healthcare strategies used by India's healthcare providers.
- 2. To assess how healthcare plans affect the standard of care provided by India's healthcare providers.
- 3. To make recommendations for tactics for India's healthcare providers.

3. Methodology

To determine and quantify the influence of health care strategies on the medical services provided by health organisations in India, the study was carried out in two stages. Thus, two distinct sets of questionnaires were created, one of which assessed health care strategies from the perspective of hospitals. Of the 409 respondents, 172 were in charge of hospitals and systems, 115 were heads of departments, 75 were concerned in-charge paramedics, 20 were hospital administrators, and the remaining 12 were other professionals. The response came from 500 healthcare professionals. Of the replies, 409 were selected for examination because they had complete data, while the remaining responses were excluded because they lacked sufficient details. The purpose of the second questionnaire was to assess the health systems' medical services. Client feedback from health care providers private hospitals, multispecialty hospitals, private clinics, and other private sectors offering private services has been gathered. Therefore, of the 500 feedbacks, only 410 in-patients and out-patients who completed the survey are considered for analysis because the data they provided was full. Additionally, strategies and strategic initiatives were sent to external experts for validation using the Delphi technique after being reviewed and confirmed internally. The expert viewpoints were thoroughly examined and appropriately included to complete the study's outputs.



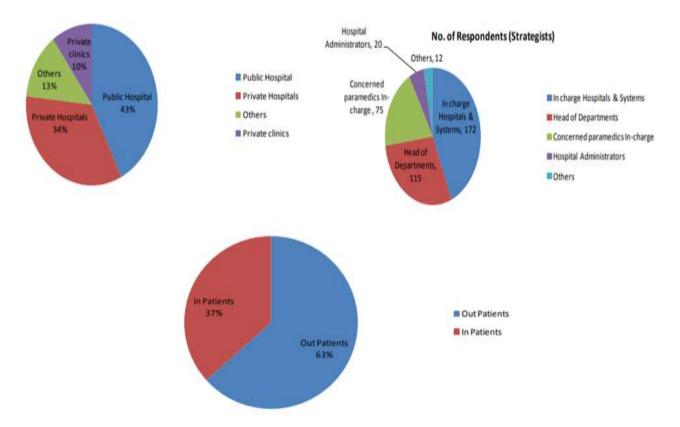


Figure 1 .Pie Chart depicting percentage of (a) No. of Respondents of Hospitals (b) Percentage of Respondents (Strategists) (c)Types of Patients

The data gathered for the current study was then examined using SPSS 20 and the subsequent statistical instruments. For dimension reduction, a factor analysis tool is utilised. It is evident that 32 variables measuring health strategies were reduced to 07 dimensions, and 43 variables utilised in the patient questionnaire to assess the quality of services were reduced to 10 elements dimensions. Therefore, factor analysis has been used to assess the validity of the data. The data's reliability was assessed using the Chronbach's Alpha Reliability test, yielding results of 846 and 808. Thus, demonstrating the dependability, which is further explained in the descriptive analysis. A technique for linear regression analysis was used to examine how healthcare strategy affected healthcare services. An ANOVA technique has been used to compare the quality of services provided by different hospital groups (Public, Private, Clinics, and Others) and to determine how these groups' strategies differ from one another.

There were 34 variable statements in the original healthcare strategy measurement questionnaire. The participants were requested to express their views using a five-point Likert scale ranging from "strongly disagree" to "strongly agree," with one point denoting extreme disagreement and five representing "strongly agree." Table 1 (total variance and Eigen values) explains how the variables were extracted to seven dimensions. The questionnaire's validity and reliability have been examined using KMO and Bartlett's Test, as indicated in the table below:

Table 1. Total Variance Explained- Health Care Strategy

Initial Eigen values ^a			voluoca	Extraction Sums of			Rotation Sums of		
	mittai Eigen values		Squared Loadings			Squared Loadings			
Component	Total	% of Varia n ce	Cumul a tive %	Total	% of Varianc e	Cumu lative %	Total	% of Varia nce	Cumu l ative



										%
	1	3.631	19.960	19.960	5.164	18.444	18.44 4	3.473	12.40	12.403
	2	1.907	10.481	30.442	2.027	7.239	25.68 3	2.405	8.588	20.991
	3	1.237	6.800	37.241	1.684	6.016	31.69 9	1.564	5.584	26.575
	4	.973	5.349	42.590	1.233	4.405	36.10 4	1.538	5.492	32.067
Rescaled	5	.850	4.671	47.261	1.071	3.826	39.92 9	1.513	5.403	37.470
	6	.744	4.088	51.349	1.051	3.753	43.68	1.378	4.921	42.391
	7	.660	3.629	54.977	.985	3.518	47.20 0	1.346	4.809	47.200
	8	.625	3.437	58.414						
	9	.593	3.257	61.671						
	1 0	.546	2.999	64.670						

Extraction Method: Principal Component Analysis.

Bartlett's Test result of 0.834 is computed based on the KMO, indicating that the sample data is sufficiently good for analysis. After being reduced to components, the variables were chosen by factor analysis utilising the principal component analysis approach. Thus, experimental titles were assigned to the final dimensions chosen. Table 2 below provides an explanation of the overall variance:

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sa	.834						
	Approx. Chi-Square	2306.878					
Doublatt's Tost of Cohomicity	Df	378					
Bartlett's Test of Sphericity	Sig.	.000					
a. Based on correlations							

The quality factors are therefore grouped under the following headings in the above table: Enquiry and Staff Support; Clinical Standardisation and Record Keeping; Access to Information and Patient Interaction; Staff Availability and Honesty; Hygiene and Personal Care; Suggestions and Follow-up Process; Staff Efficiency and Effectiveness; Drug Availability; Promptness of Services; and Use of Modern Technology. Based on the comments from health workers and professionals, a reliability test was conducted using Cronbach's Alpha, and the dependability statistics show a value of 864, which is considered good for research study.

a. When analyzing a covariance matrix, the initial eigen values are the same across the raw and



Table: 3.Reliability Statistics- Hospital Strategy

Cronbach's Alpha	N of Items
.864	33

Regression analysis and the ANOVA technique are statistical tools that have been utilised for research and hypothesis testing. Regression analysis is a dynamic technique that predicts a variable's unknown value from the known values of one or two variables, also referred to as the predictors. More specifically, with given values of X1, X2,... Xk, a regression analysis helps predict the value of Y. Models containing one dependent variable and two or more independent (exploratory) variables are referred to as regressions. The variables whose values need to be measured or predicted are referred to as independent (exploratory) variables, while the ones whose known values are used in the prediction process are known as dependent variables.

Table 4. Difference In Strategies Across Various Types of Hospitals (Private, Public, Private Clinic and Others)

	AN	NOVA				
		Sum of Squares	Df	Mean Squar e	F	Sig.
1.Organizational	Between Groups	17.649	3	5.883	37.44 7	.000
Opportunity and	Within Groups	63.625	405	.157		
Design	Total	81.273	408			
2.Standardization	Between Groups	10.365	3	3.455	24.94 5	.000
Operating Procedures	Within Groups	56.096	405	.139		
Procedures	Total	66.461	408			
3.Employees	Between Groups	82.785	3	27.59 5	51.00 7	.000
Welfare and Benefits	Within Groups	219.105	405	.541		
Benefits	Total	301.890	408			
4. Strategies related to	Between Groups	12.632	3	4.211	10.55	.000
Resources	Within Groups	161.633	405	.399		
Management	Total	174.265	408			
5. Strategies related	Between Groups	43.055	3	14.35	10.91 6	.000
In/Out- Country	Within Groups	532.466	405	1.315		
Training	Total	575.521	408			
6. Standard Administrative	Between Groups	11.508	3	3.836	11.26 7	.000
	Within Groups	137.890	405	.340		
Strategy	Total	149.399	408			
7 Community	Between Groups	25.251	3	8.417	9.491	.000
7. Community Management	Within Groups	359.150	405	.887		
ivianagement	Total	384.401	408			

In order to explain "how much Hospitals' strategy accounts for changes in Patients' service quality," or the percentage change of the independent variable in the dependent variable, a summary model has been created for the current study. F-test has been used to demonstrate the model's utility. ANOVA is



used in this study to address the many comparisons that have been conducted. By doing hypothesis tests on two parameters at a time, this test avoids some of the issues that arise when analysing the parameters of many populations at once. Different kinds of statistical methods are required when studying more than two populations at once. As a result, the ANOVA technique has been used to compare the techniques used by different hospitals and the quality of healthcare provided by the hospitals that were included in the study. Additionally, the bottom table presents a clear contrast between public and private hospitals:

S. No.	QUALITY OF HEALTH SERVICES	PRIVATE HOSPITALS	PUBLIC HOSPITALS
1	Enquiry and Staff Support	$\sqrt{}$	
2	Information Access and Patient Interaction	\checkmark	
3	Clinical Treatment and Record Keeping	V	
4	Staff Availability and Honesty	\checkmark	
5	Hygiene and Personal care	$\sqrt{}$	
6	Suggestions and Follow- up process	\checkmark	
7	Staff Efficiency and Effectiveness	$\sqrt{}$	$\sqrt{}$
8	Availability of Drugs		
9	Promptness of services	$\sqrt{}$	
10	Use of Modern Technology		

Table 5. Showing a Comparative analysis of Private and Public Hospitals

Consequently, the above table indicates that there is a notable difference in the quality of healthcare provided by private and public hospitals. It also shows that whenever private hospitals implement new strategic initiatives, patient satisfaction increases and that hospitals that consistently place a high priority on these initiatives see higher patient satisfaction rates.

4. Conclusion and future scope

Discussions among hospital strategists, administrators, and management have traditionally focused on the topic of "Health Care Strategies and its Impact on the Quality of Health Services." In the current context, the subject's character has become extremely dynamic due to growing rivalry for customers' happiness. It is crucial to develop and put into action plans that will improve patient satisfaction and the standard of healthcare provided. Examining the hospital's approach is a chance for both public and private health services to be more sensitive to the requirements and expectations of the patient. As a result, healthcare practitioners need to concentrate on how marketing and strategy orientations work together. Hospital marketing strategies should place a greater emphasis on the customer philosophy and the operational effectiveness of their services, since these factors might influence health care providers' strategic direction either directly or indirectly. Research measuring healthcare policies across organisations is scarce in India. Understanding patient feedback is crucial for evaluating the operation of the institution.

Reference

- [1] King, Annette. "The primary health care strategy." Wellington: Ministry of health (2001).
- [2] King, Annette. "The primary health care strategy." Wellington: Ministry of health (2001).
- [3] Topping, Sharon, and S. Robert Hernandez. "Health care strategy research, 1985-1990: A critical review." *Medical Care Review* 48, no. 1 (1991): 47-89.

Health Care Strategy and its Impact on Quality of Health Services in India. SEEJPH 2024 Posted: 30-06-2024

- [4] Yashir Ahamed, M., Lalthlamuanpuii, R., Chetia, B., Lallawmawmi, & Lalngaizuali. (2023). Usage of Medical Library Resources: A Study in the Regional Institute of Medical Sciences, Imphal. Indian Journal of Information Sources and Services, 13(2), 1–6.
- [5] Cumming, Jacqueline, and Nicholas Mays. "New Zealand's Primary Health Care Strategy: early effects of the new financing and payment system for general practice and future challenges." *Health Economics, Policy and Law* 6, no. 1 (2011): 1-21.
- [6] Kodric, Z., Vrhovec, S., & Jelovcan, L. (2021). Securing edge-enabled smart healthcare systems with blockchain: A systematic literature review. Journal of Internet Services and Information Security, 11(4), 19-32.
- [7] Scott, Ian. "What are the most effective strategies for improving quality and safety of health care?." *Internal medicine journal* 39, no. 6 (2009): 389-400.
- [8] Dettrick, Zoe, Sonja Firth, and Eliana Jimenez Soto. "Do strategies to improve quality of maternal and child health care in lower and middle income countries lead to improved outcomes? A review of the evidence." *PLoS One* 8, no. 12 (2013): e83070.
- [9] Malathi, K., Shruthi, S.N., Madhumitha, N., Sreelakshmi, S., Sathya, U., & Sangeetha, P.M. (2024). Medical Data Integration and Interoperability through Remote Monitoring of Healthcare Devices. Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (JoWUA), 15(2), 60-72. https://doi.org/10.58346/JOWUA.2024.I2.005
- [10] Jakovljevic, Mihajlo, Hanyu Chang, Jay Pan, Chao Guo, Jin Hui, Hao Hu, Danko Grujic, Zhong Li, and Lizheng Shi. "Successes and challenges of China's health care reform: a four-decade perspective spanning 1985—2023." *Cost Effectiveness and Resource Allocation* 21, no. 1 (2023): 59.
- [11] Arora, G. (2024). Desing of VLSI Architecture for a flexible testbed of Artificial Neural Network for training and testing on FPGA. Journal of VLSI Circuits and Systems, 6(1), 30-35.
- [12] Woldemariam, Misganaw Tadesse, and Worku Jimma. "Adoption of electronic health record systems to enhance the quality of healthcare in low-income countries: a systematic review." *BMJ Health & Care Informatics* 30, no. 1 (2023).
- [13] Jelena, T., & Srðan, K. (2023). Smart Mining: Joint Model for Parametrization of Coal Excavation Process Based on Artificial Neural Networks. Archives for Technical Sciences, 2(29), 11-22.
- [14] Kavitha R., et.al An efficient way of implementing interposable, assorted symmetries for thin clients, Eurasian Journal of Analytical Chemistry, V-13, I-3, PP:1201-1206, 2018.
- [15] World Health Organization. Strategy for optimizing national routine health information systems: strengthening routine health information systems to deliver primary health care and universal health coverage. World Health Organization, 2024.
- [16] Lucero-Prisno III, Don Eliseo, Deborah Oluwaseun Shomuyiwa, M. B. N. Kouwenhoven, Thinley Dorji, Goodness Ogeyi Odey, Adriana Viola Miranda, Isaac Olushola Ogunkola et al. "Top 10 public health challenges to track in 2023: Shifting focus beyond a global pandemic." *Public Health Challenges* 2, no. 2 (2023): e86.
- [17] Abbasi, Kamran. "Healthcare strategy." BMJ 318, no. 7188 (1999): 933-936.
- [18] Kutlu, Y., & Camgözlü, Y. (2021). Detection of coronavirus disease (COVID-19) from X-ray images using deep convolutional neural networks. Natural and Engineering Sciences, 6(1), 60-74.
- [19] Aggarwal, Monica, and Brian G. Hutchison. Toward a primary care strategy for Canada. Canadian foundation for healthcare improvement, 2013.