



STRENGTHENING PUBLIC HEALTH SERVICE DELIVERY THROUGH GOOD GOVERNANCE: EVIDENCE FROM PAKISTAN

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Abstract

The imperative to enhance public service delivery has placed good governance at the center of health sector reform, particularly in developing countries where state-led healthcare remains a primary source for the majority. This study investigates the impact of good governance on health service delivery in Pakistan, with a specific focus on Balochistan, using the theoretical lens of Public Value Theory. Employing a quantitative, explanatory research design, data were collected from 234 healthcare professionals – including doctors, nurses, pharmacists, and administrators – across public hospitals using standardized scales. Structural Equation Modeling (SEM) via SmartPLS was applied to examine the hypothesized relationship. A positive correlation is statistically significant and exists between the good governance and service delivery. Good-governance dimensions, namely transparency, accountability, regulatory quality, and rule of law have been empirically demonstrated to have positive effects on the important indicators of service quality, such as physician availability, quality of diagnostic services, patient satisfaction with treatment, and continuity of care. These results highlight the criticality of governance practices not only in improving operational efficiency but also in creating value to the population, as a result of alignment of services and the expectations and needs of the people. Besides, the study extends the theoretical evolution of the Public Value Theory through the provision of practical validation of its assumptions in the framework of the healthcare system under the conditions of the limited resources. It also contributes practically by identifying governance-driven pathways to improve health service performance and sustainability. Policymakers are urged to institutionalize governance reforms to ensure equitable, transparent, and citizen-centric health delivery systems in Pakistan.



1. Introduction

1.1 Background of the Study

Every organization exists to fulfil a specific purpose. While private sector entities primarily aim to generate profit, nonprofit organizations focus on promoting social welfare. Government organizations, on the other hand, are established to deliver public services (Zarychta et al., 2026). Value is generated when these organizations provide high-quality services that meet the needs and expectations of their stakeholders. Across all sectors, the creation of value is regarded as both a priority and a fundamental objective. But, with the health sector where people's life is attached, is vital to provide best service to save people from hazards, diseases and loss of life (Lee, 2024; Hwang et al., 2026). Unfortunately, the quality-of-service delivery in health sector has always in compromised in developing countries, despite the fact that government spend handsome number of resources in the sector (Madaki et al., 2024). The service delivery in health sector consists of variety of services which including diagnosis, treatment, counseling, health education, public health interventions, surgical and non-surgical management, and pharmacological and non-pharmacological patient management, all aimed at preventing or curing diseases. Pakistan, with an annual growth rate of approximately 2 percent and a

population of 225 million, is the world's fifth most populous country (Pakistan Bureau of Statistics, 2024; United Nations, 2024). The country faces the demographic challenge of a youth-dominated population, with 60 percent under the age of 25 and a fertility rate of 3.6 births per woman. Despite national efforts to reduce healthcare costs and alleviate poverty, the landscape of health service delivery remains challenging. According to the World Bank (2024), Pakistan spends 2.8 percent of its GDP on healthcare, with out-of-pocket spending accounting for approximately 55% of total health expenditure (WHO, 2024; Pakistan Bureau of Statistics, 2024). Despite these efforts, achieving universal health coverage and sustainable development goals remains a formidable task.

Health and education are prioritized services administered through a mixed healthcare system, encompassing government infrastructure in rural and peri-urban areas and teaching hospitals in urban regions. Despite over 750,000 primary care facilities and extensive outreach services, Pakistan allocates only 3% of its GDP to healthcare, supplemented by national and international donor assistance. The country faces compounding challenges, including non-communicable and communicable diseases, malnutrition, and insufficient healthcare facilities (Saquain, 2023;



Muhammad & Noor, 2023; Khattak et al., 2023; Mehboob, 2023)

In the context of Pakistan's decentralization initiatives, the devolution plan introduced in 2000 aimed to distribute political power, decentralize management, and allocate resources to the district level. Despite the mentioned efforts, the achievement of universal health cover and the Sustainable Development Goals has remained an uphill task.

Priority services in a mixed health-care system include health and education, which entails government infrastructure in rural and peri-urban localities and teaching hospitals in urban centres. With over 750,000 primary-care facilities and widespread outreach programmes, Pakistan spends only 3Denominator of gross domestic product on health care on top of national and international donor support. The nation faces a variety of problems, such as communicable and non-communicable diseases, malnutrition, and the lack of health-care facilities (Saqlain, 2023; Muhammad & Noor, 2023; Khattak et al., 2023; Mehboob, 2023).

Another plan related to the decentralization efforts in the context of Pakistan was the devolution plan that was launched in 2000 to distribute political power, decentralise administration and distribute resources to the district level. However, the Pakistani health

care system and its Balochistan region, in particular, still has to deal with intricate challenges (Khan et al., 2023).

The health system in Pakistan is controlled by federal and provincial governments and has three layers primary, secondary, and tertiary. The 18 th Amendment of 2010 was aimed at restoring balance between the national and regional powers and so taming over-centralisation. Despite legislations on the improvement of health services in provinces like Punjab, Sindh, and Khyber Pakhtunkhwa, Balochistan has not implemented a similar law (Khan, 2022). Balochistan Health Department provides its services at the hospitals, Basic health units and Rural health centres and is dealing with a high disease burden (Khan, 2022).

The biggest and most underprivileged province in the country, Baluchistan is encountered by a lot of challenges in the health sector. Despite the fact that it is the subject of welfare programmes, gaps in governance, poor service provision, mismanagement of finances and anomalies hamper the delivery of relief. The province is the leading on neonatal mortality, which can be explained by inadequate post-natal services, inappropriate breastfeeding habits, and delivery complications. It also faces water-borne diseases due to the lack of clean drinking water, respiratory diseases caused by dust storms and



pollution, malnutrition, infectious diseases such as tuberculosis and hepatitis, and an increasing number of non-communicable diseases such as diabetes and cancer (Khan, 2022). In addition, there are alarming maternal, neonatal and child health indicators (MNCH) in Balochistan.

Health financing, human resources, organisational structure and service delivery are some of the challenges faced by the healthcare system in Balochistan. A government spending in the health sector has been only 0.4 percent of GDP, which is significantly lower than the WHO recommendation, and this has left about 78 per cent of the population relying on out of pocket. Inadequate human resource, insufficient programmes that cover non-communicable diseases, challenges related to regulation of pharmaceuticals and macro-economic restrictions increase further the healthcare crisis in Balochistan (Rai, 2021). Solving these complex problems requires an institutional fortification and an entitlement to national public-health network. However, it is evident that the provenance of administrative and political goodwill, lack of governance, leadership, and planning negatively affects substantive reforms of the Balochistan health system (Saqlain, 2023).

Malnutrition, hepatitis B and C, tuberculosis, HIV and insufficient blood-screening programmes are

some examples of major health issues. Global Burden of Disease study sheds some light on the health situation in Pakistan which indicates imbalance and lack of ensuing development. The nation has had a hard time achieving world health goals, and the rates of achievement of the Sustainable Development Goal 3 (SDG 3) are rather sluggish (Saqlain,23). The infant and maternal mortality is high and malnutrition plagues a large proportion of the population. The National Health Vision 2016 25 envisions an Universal Health Coverage with a focus on good governance, innovation and equity. However, the country health system still faces numerous encounters in the shape of poor service delivery, weak health management information systems, resource inequality and inefficacy (Zaidi et al., 2019).

Moreover, challenges like lack of sufficient funding, lead to resource shortage, and lack of trained human resources. Similarly, poor coordination, inconsistency in service delivery, and weak accountability and transparency mechanism becomes more vulnerable to corruption and mismanagement. Likewise, insufficient trained staff in rural areas further limit the access to quality healthcare services. Further, with 75% of the population relying on private healthcare, underfunding and inefficiencies persist,

demanding substantial reforms and investments (Madaki et al., 2024; World Bank, 2024; Nizar & Chagani, 2016; Khan, 2022).

Pakistan is way behind from its neighbors, on various health indicator, be it life expectancy, maternal mortality, Polio Eradication, etc. there are various reasons behind above-mentioned challenges. One prominent reason noted is bad governance which hampers in providing quality service delivery. Researcher believe that good governance ensures efficient and effective service delivery, which in turn helps in economic development and improving living standards. The relationship between good governance and service delivery has been discussed in various studies. Bulk of literature available to discuss association between good governance and service-related outcomes in the health sector (Olafsdottir et al., 2011; Anwari et al., 2015). Marawu et al. (2023) conducted a study in South Africa where they posited that a country's service delivery can be improved by incorporating practices of good governance. Likewise, Rotberg (2014) is of the opinion that when good governance is in practice in the publicly led organizations, service delivery is obviously improved. Whereas, the organization where there is lack of implementation of governance practices, have been reported to low and poor service delivery.

Furthermore, Dion and Evans (2024) discuss that governance is essential for quality service delivery in health, he states, that there should be a comprehensive governance frameworks to monitor and improve service delivery in healthcare organizations. Moreover, governance arrangements that align policies, budgets, and reporting systems facilitate better cooperation and integration of services, as observed in Italy, the Netherlands, and Scotland (Exley et al., 2022). In Kenya, health policy as a governance aspect positively influences service delivery in national referral hospitals, leading to improvements in accessibility, affordability, and customer satisfaction (Abdi et al., 2023). In Kenya's public health sector, procurement governance significantly moderates the relationship between supply chain agility and service delivery, with effective procurement policies enhancing transparency and accountability, leading to better service delivery (Machuki, 2023). In Senegal, an integrated governance approach involving local governments, facility staff, and civil society has shown improvements in health service readiness and problem-solving through increased citizen involvement and resource access (Wetterberg et al., 2022). However, research also discusses that the governance concept in the literature remains complex, with various frameworks measuring its



impact on health system performance and service delivery (Siddiqi et al., 2009). In addition, the governance gap extends to health policy development and implementation, recruitment practices, and issues related to seniority over meritocracy.

Though, to tackle these challenges, the government of Pakistan has adopted the Sustainable Development Goals (SDGs) framework to enhance service delivery across sectors, including health. But, as per our best of knowledge, no updated studies exist to provide clear picture of health service delivery and the impact of good governance on service delivery, particularly, in the lenses of public value creation. Thus, this study seeks to fill this gap by investigating the role of good governance in improving service delivery, addressing challenges, and identifying opportunities within the region. Furthermore, this study significantly contributes to the existing body of knowledge by exploring the intricate relationship between good governance and service delivery in the health sector, particularly in the context of Balochistan, Pakistan. The research findings aim to shed light on the challenges faced by the health department and the opportunities that can be leveraged to enhance healthcare services.

Furthermore, this study contributes to public value theory, which states

that public organizations should provide value to the public, they make sure that their services have positive impact on the society. Thus, this study explains how practices of good governance improve service delivery in health sector, which in turn, offer insights that help guide practices and policy decisions and promote a value-oriented public approach. Therefore, this study theoretically contributes to the body of knowledge, that how public organizations create value for the public, also, study intends to advance knowledge of how effective governance can improve the public value that Balochistan's healthcare services provide.

2. Literature Review

2.1 Service Delivery

Service delivery in the health sector is the provision of healthcare services to the individual and communities to promote, maintain and restore health. This includes wide range of services, such as diagnosis, treatment, management of illness, preventive care, and health education (Martikke & Moxham, 2010). The dimensions of service quality provide a structured framework for comprehending the critical elements that contribute to customers' perceptions of service delivery. Service delivery in healthcare hospitals encompasses a range of dimensions critical to patient satisfaction and overall healthcare quality. After a detailed review of literature, and relevance of



current study following dimensions were explored.

Availability of Doctors Adequate availability of doctors is essential for timely and effective healthcare delivery. A study comparing patient satisfaction in private and government hospitals found that adequate staffing significantly influences patient satisfaction (Orte et al., 2020; Ponsignon et al., 2024)

Quality of Diagnosis and Treatment Accurate diagnosis and effective treatment are core components of high-quality healthcare. Research indicates that patient trust in the hospital's service delivery system is significantly affected by the perceived quality of diagnosis and treatment (Ramli, 2019).

Patient Satisfaction with Prescriptions and Drugs Patient satisfaction regarding prescriptions and the quality of drugs provided is crucial. Studies suggest that hospitals that ensure the availability of necessary medications and maintain high standards of pharmaceutical care see higher patient satisfaction levels (Gopalakrishnan & Nair, 2022).

Recovery and Cure Rates Effective treatment leading to recovery and cure is a primary measure of hospital performance. Comparative studies have shown that hospitals, despite resource limitations, can achieve high recovery rates through efficient service delivery practices

(Aminizadeh et al., 2024; Orte et al., 2020).

Time Allocated to Patients Sufficient consultation time is critical for thorough patient evaluation and care. Studies highlight that the adequacy of time spent with patients is a key factor in patient satisfaction and perceived quality of care (Amankwah et al., 2024).

Payment Arrangements Transparent and fair payment arrangements enhance patient trust and satisfaction. Research on service delivery systems emphasizes the importance of clear and equitable payment structures in fostering positive patient experiences (Gupta & Potthoff, 2016).

Reception Facilities and Staff Appearance The overall reception facility and the appearance of staff contribute significantly to the patient's first impression and ongoing satisfaction. Studies indicate that clean, well-maintained facilities and professional staff appearance positively impact patient satisfaction (Arries & Newman, 2008).

Follow-Up and Monitoring Continuous monitoring and follow-up care are essential for effective treatment outcomes. Research suggests that structured follow-up programs significantly enhance patient satisfaction and health outcomes (Senot et al., 2016).

Medical Equipment and Facilities The availability and adequacy of medical equipment and room

facilities are critical for quality healthcare delivery. Studies highlight the need for well-equipped facilities to meet patient needs effectively (Wang et al., 2014).

Compassion, Respect, and Support
Compassionate care, respect for patients, and emotional support are fundamental aspects of patient satisfaction. Research shows that these factors significantly influence patients' overall satisfaction with healthcare services (Demirel et al., 2024).

In order to have a critical understanding of service delivery, an in-depth understanding of various health provision systems in the world is critical. According to Reid (2010), there are four main models, including the Beveridge Model (such as the United Kingdom National Health Service) that operates based on a single government payer and the Bismarck Model which is based on coverage regulated by the government and subsidized by insurance companies (and offered by employers and employees) with the focus on universal coverage, the National Health Insurance Model that is based on the universal insurance program funded by citizens and the government, and the Out-of-Pocket Model which is present in the developing countries and forces the patients to bear the cost of health services on These models shed light on the complex environment of

service delivery processes in the world.

In Pakistan the role of federal and provincial governments in the delivery of healthcare services is a common one. The health sector merges both the private and the public sectors and primary care is provided by the basic health units and rural health centres. Hospitals and teaching hospitals offer secondary and tertiary care with the addition of specialised services to organisational entities like the military, airlines, and railways (Nizar and Chagani, 2016).

After the 18th amendment to the constitution, they took over the health facilities to the provinces hence focusing on decentralisation. Although there is a numerical improvement in number of health facilities, there are still some challenges. This has a massive disconnect in service delivery to infrastructure especially in the rural communities. Hospitals and the biggest type of health spending often demonstrate the least optimal performance thus undermining the trust of people in the public sector hospitals. There are about 73,000 privately owned clinics but the qualification and the practice of healthcare providers remain heterogeneous. Additional issues that complicate the healthcare environment are dual practices by the public officials and quackery (Nishtar et al., 2013).

Despite the achievements in the growth of infrastructure, the under utilisation in the rural communities still exists and the need to improve the service delivery at both provincial and district levels is necessary. There is no correspondence between the increased revenue generation and the quality and equity of the outcomes, which is why the qualitative improvements are necessary. Improper public trust to the hospitals in the public sector has made the situation in these hospitals be dire as many Pakistanis are compelled to seek private sector services despite their economic limitations. Further, another factor that adds variety to the healthcare market is the presence of a large number of individual operated private clinics. Drugstore operators, retailers, and faith healers continue being a part of the pathways-to-care continuum as informal providers (Nishtar et al., 2013).

A number of researchers have indicated the flaws in the quality of healthcare service delivery in Pakistan. As Nishtar et al. (2013) emphasize, state-owned facilities of the public health system should be strictly checked and balanced, and most of all, on the level of primary healthcare. Some of the recommendations are to strengthen governance, incorporate provincial and district national public health programmes, and to narrow the gap

in population health provision of services.

As Kuye and Akinwale (2020) note, management approach in healthcare facilities has the ability to affect service delivery. Delays and obstacles are some of the effects of bureaucratic processes especially in developing countries. Furthermore, the delivery of healthcare services highly depends on accessibility and availability of healthcare services. The increased access may enhance the health outcomes, particularly of vulnerable groups.

2.2 Good Governance

Governance is considered as building block for shaping economic growth, social progress, and overall development, particularly in low- and middle-income countries. While governance is acknowledged as vital in various sectors, its role in the health sector often remains underappreciated and underexplored (Siddiqi et al., 2009). Governance serves as a vital channel between the state and its citizens. Principles of good governance, when in practice, lead to building trust, and promote citizen-oriented service delivery (Mishra & Attri, 2020). Actually, this the condition of socioeconomic of state to build a perception of state in the minds of citizen, some view it as a facilitator whereas, other view it is as provider, actually in a side-lined state, where citizen mainly rely on state to fulfil their needs, particularly, in health sector, there the role of good



governance become dominant (Mishra & Attri, 2020). Governance is described as exercise of authority by formal and informal institutions, related to resource management, allocation and distribution (Mishra & Attri, 2020). Also, this includes the arrangement, that define decision-making processes in alignment with a country's constitutional values.

Abakose and Abagojam (2021) are of the opinion that good governance practices lead to efficient utilization of resources which ultimately leads to quality service delivery. The principles of good governance, including the rule of law, participation, accountability, transparency, efficiency, and fairness, contribute to effective service delivery and in the field of public management, the concept of good governance focuses on coordination among stakeholders for better reforms and improving living conditions of citizen (Jafari et al., 2019). Though, good governance is vastly studies topic in the area of modern public management, however, in the health sector, still his has been overlooked, need further studies (Jafari et al., 2019).

Despite the recognized importance of good governance, the health systems in many developing countries face challenges. Governance in health aims to develop valuable services that protect and promote human health. It involves strategic goal-setting, policy formulation, resource

allocation, and ongoing monitoring and evaluation to ensure targets are met. Good health governance entails interactions among citizens, service providers, and government actors.

In most developing countries, health facilities tend to be set up in the jurisdiction of ministries that include the Ministry of Health. In an effort to enhance the quality of health services, there is a need to incorporate health considerations in the top level policy formulation. However, the current literature on health governance is mostly focused on the theoretical strategies instead of the improvements at the facility level. The health system in Pakistan faces significant governance challenges; lack of accountability, transparency, and reforms based on merit in the structural organisation is some of the issues that hinder the provision of quality health services (Nishtar et al., 2013). Some of the areas that require improvement include propping devolution in the health system, formulation of relevant policies and institutional frameworks at the different levels of government and implementing legislations that provide an entitlement to health. Besides, the distinct distinction of roles in the restructured system of local governance and the proper balance of power, responsibility and accountability require strict consideration. The policymaking process in the business world, including the regulatory provisions

that address it, also needs a deep analysis and revision.

2.3 Good Governance and Service Delivery

Effective Service delivery in health sector is associated with the principles of good governance. A detailed review of the literature state that good governance plays a crucial role in improving health care practices. This discussion sheds light on various dimensions of good governance and their impact on improving service delivery in health sector.

The dimensions of good governance that are considered under the principles of transparency and accountability require that healthcare providers should be accountable to their actions. Additionally, the academic literature shows that checks and balances (social audits, performance-based financing, or citizen scorecards) can make a significant improvement in health outcomes (Witter et al., 2013; Olafsdotir et al., 2016), especially in the developing nations. These traditions lead to the development of the accountability culture and the improvement of the overall services. Similarly, involvement of the citizens and stakeholders in decision making is also another essential dimension. This is evidenced in the Ugandan study that indicates the role of the community members in health facility management committees to implement protective measures in the delivery of services

and enhance confidence between communities and the rest of the health system (Kasyaba et al., 2017). Furthermore, community-based health planning and services programmes that have been cited by Bukini et al. in Ghana have also helped in enhancing access to healthcare services (Ankrah et al.). These projects form an environment that is sensitive to the context and makes sure that the healthcare provision is in accordance with the needs of the community. Moreover, good governance will involve good managers and leaders whose leadership is invaluable to well-performing health systems. The literature presents strong evidence that the provision of high-quality services is a challenging activity requiring the existence of leadership and management structures along with certain interventions, which are essential to provide value through the effective use of resources, coordination of service delivery, and high-quality assurance (Bloom et al., 2016). A well-focused and managed health system is better revisited to deliver high quality services within its beneficiaries. Affordability, accessibility as well as quality of healthcare services are considered vital components for enhancement in health outcomes. The standards need maintenance, and similar good governance practices in the form of regulation/oversight are essential. In the United States, for example, access to healthcare services has



been broadened under Affordable Care Act rules and supervised by the Centers for Medicare and Medicaid Services in order to guarantee compliance with quality criteria (Colla et al., 2017). Regulatory frameworks function as assurance items which ensure privacy action can be performed to possess with the fixed parameters of qualified health merchandise.

2.4 Public Value Theory

PV emphasises that public organisations - especially in the domain of health service delivery - exist to create public value, not simply satisfy stakeholder demands. The provision of high-quality, effective, efficient and responsive services that meet public need or suit citizens preferences also constitutes what is known as 'public value' accomplished by organizations in the network. Public Value Theory: Focus on the delivery of medical care Public Health status in Populations and Individual health care provision, It involves strategies which engage health education and disease prevention programs, in addition to delivering quality medical care as required (Benington & Moore, 2010). The delivery of health services that work best can create public value by increasing the quality and efficiency with which care is delivered, improving population health outcomes, reducing healthcare costs overall while enhancing well-being.

This requires a public value approach by health organizations which includes the views and preferences of citizens, as well as an understanding about social and economic changes in providing healthcare (Moore 1995).

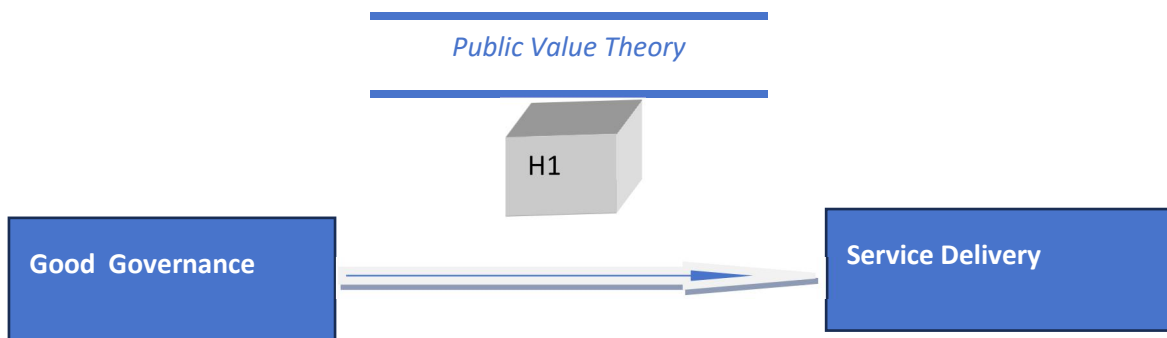
Research suggests a link between good governance and public value in health care systems. Saltman and Ferroussier-Davis 2000 tested whether good governance was associated with health, measured in terms of actual or perceived state population-level health status improvement; access to a number of healthcare services prior to entry into the hospitalisation system so as better ability at primary care level is correlated with stronger case management (referrers would under appropriate conditions be provided given costings) satisfaction according. Muthengi and Ragui (2023) similarly report a positive association between good governance practices, including stakeholder orientation and transparency, on health system performance as well as public value creation. Other studies show that public value creation is an important goal of good governance in health systems. Alakeson et al. Public ValueThe study of Liu et al., (2010) suggested that citizen participation assists in the development of a closer relationship with public needs, which is very important to enhances appropriate decisions and policies making. Lightfoot and Baines (2018)



highlighted the importance of good governance practices in health through collaboration and partnership working to drivers value for patients, providers and other stakeholders. Thus, Public Value Theory gives an insight to the distinct linkage of good governance and service delivery in healthcare. The introduction of sound governance principles into

healthcare systems would bolster the creation of public value, meaning that not only do services adequately satisfy a key public need but they are also beneficial to society and economy as a whole. This view highlights open, inclusive and adaptive relations of statecraft as a driver for optimal health impacts and lasting public value (Stoker 2006).

2.5 Theoretical Framework



3. Methodology

In this research, quantitative methods have been used, and the explanatory goal was pursued. The analysis was meant to understand and explain the relationships of variables and to determine theories hypotheses formed based on theories. In sampling, non-probability sampling that is also known as convenience sampling was used to gather data on professionals holding administrative offices in the district headquarters in Balochistan. The sample included physicians, nurses, pharmacists and other administrative personnel. Convenience sampling was chosen due to its advantages as a practical

and convenient method of reaching the target population and thus make it easy to collect data within the limits of the study. The Solvin formula was used to come up with the sample size of 400 participants as suggested by Adam (2020). The formula uses the parameters like the required level of confidence, margin of error and the population size to calculate the right sample size to perform statistical analysis and test of hypothesis. A total of 299 questionnaires were received from the targeted population. However, after screening for completeness and validity, 234 questionnaires were deemed usable for analysis. Hence, the response rate was 74.75%.



3.1 Data analysis and Tools

Preliminary data analysis (including the analysis of data screening, outlier detection, normality analysis, and presentation of respondents profiles) was conducted using the IBM SPSS 26. It was then installed in SmartPLS 4 to perform the ancillary analyses, such as assessing the reliability and validity and testing the hypotheses using structural equation modelling (SEM). The use of PLS-SEM in the test of the theoretical model was explained by a number of reasons: it is widely used in management research, it is suitable for prediction-oriented

research (Hair et al., 2021), and it allows simultaneous estimation of multiple constructs. In addition, SmartPLS 4 software was used for the analysis, following a two-stage approach including measurement model and structural model assessment (Hair et al., 2021).

Further the study used already developed scales. For good governance 6 item scale, developed by Beshi & Kaur, (2019) were adapted. Likewise, for measuring service delivery 23 items scale which was developed by Sharma & Narang (2011) were adapted.

4. RESULTS OF THE STUDY

4.1 Profile of the Respondents

Table 4.1 presents the overview of demographics of the study.

Table 4.1

Respondents Profile

Demographic Variables	(N=234)	Valid Percentage (%)
Gender		
1	123	52.60%
2	111	47.40%
Total	234	100%
Position		
1	122	52.14
2	47	20.09
3	7	2.99
4	28	11.97
5	7	2.99
6	23	9.83
Total	234	100%
Age		
Mean Age	30.5	
Median Age	30.5	
Minimum Age	18	

Maximum Age	58
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The demographic profile of the respondents is as follows: The sample consisted of 234 individuals, with 52.60% (123 respondents) being male and 47.40% (111 respondents) being female. In terms of position, 52.14% (122 respondents) were Medical Officers, 20.09% (47 respondents) were Medical Technicians, 2.99% (7 respondents) were Pharmacists, 11.97% (28 respondents) were Nurses, 2.99% (7 respondents) were District Health Officers, and 9.83% (23 respondents) were classified as Others. The age distribution of the respondents showed a mean and median age of 30.5 years, with ages ranging from a minimum of 18 years to a maximum of 58 years.

4.2 Preliminary Data Analysis

The initial procedures included data screening, as the missing values

were carefully examined along with outliers and normality of the distribution. All the observations that were not found were filled using the arithmetic mean of the concerned variable. The z -score procedure, as recommended by Tabachnick and Fidell (2001), was used to determine univariate outliers, and Mahalanobis distance test was used to determine multivariate outliers. The data did not have any outliers. Subsequently, data normality was assessed using skewness and kurtosis methods. All values for skewness and kurtosis were within permissible levels (see Table 4.2), indicating that the data follows a normal distribution. Therefore, the data was deemed suitable for structural equation modeling (SEM) using SmartPLS.

Table 4.2

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness	Kurtosis
GG1	234	3.600	0.950	-0.120	-0.750
GG2	234	3.450	1.020	-0.100	-0.700
GG3	234	3.520	1.080	-0.080	-0.650
GG4	234	3.580	1.100	-0.110	-0.800
GG5	234	3.470	1.050	-0.150	-0.600
GG6	234	3.400	1.070	-0.180	-0.550
SD2	234	3.300	1.000	-0.090	-0.700
SD3	234	3.380	1.030	-0.110	-0.750
SD4	234	3.470	1.050	-0.130	-0.800
SD5	234	3.540	1.080	-0.080	-0.700
SD6	234	3.360	1.000	-0.120	-0.750
SD7	234	3.420	1.050	-0.160	-0.850

SD8	234	3.500	1.020	-0.180	-0.750
SD9	234	3.440	1.030	-0.150	-0.800
SD10	234	3.520	1.060	-0.140	-0.700
SD11	234	3.390	0.980	-0.200	-0.650
SD12	234	3.450	1.020	-0.180	-0.750
SD13	234	3.370	1.000	-0.140	-0.800
SD14	234	3.350	0.980	-0.170	-0.700
SD15	234	3.490	1.030	-0.110	-0.750
SD16	234	3.410	1.000	-0.160	-0.800
SD17	234	3.480	1.030	-0.130	-0.750
SD18	234	3.330	0.950	-0.120	-0.700
SD19	234	3.420	0.980	-0.100	-0.650
SD20	234	3.250	1.000	-0.050	-0.600
SD21	234	3.360	1.020	-0.070	-0.650
SD22	234	3.310	0.980	-0.090	-0.700

4.3 Stage One: Assessment of Measurement Model

In the assessment of the measurement model, reliability is evaluated through indicator reliability and internal consistency reliability, while validity is assessed through convergent and discriminant validity (Hair et al., 2021). Indicator reliability is measured by indicator loadings, with loadings above 0.708 indicating good reliability since they explain more than 50% of the variation in the variable (Hair et al., 2021). Items with loadings between 0.40 and 0.708 are typically removed only if their removal improves internal consistency or convergent validity (Sarstedt et al., 2021). In this study, indicators SD1 and SD23 were

removed due to low loadings, but the remaining indicators demonstrated sufficient reliability (see Table 4.3). Internal consistency reliability is assessed through Cronbach's alpha (CA), composite reliability (CR), and rho_A (RA), with a score of 0.7 or higher considered acceptable (Sarstedt et al., 2021). Table 4.3 confirms that all constructs have values of 0.70 or higher, indicating achieved internal consistency reliability. Convergent validity is evaluated using the Average Variance Extracted (AVE) method, which must be greater than 0.5 (Hair et al., 2021). Table 4.3 indicates that all variables in the study model have AVE values well above 0.5, confirming that convergent validity is not an issue.



Table 4.3

Evaluation of the Measurement Model

Variables name	Item Label	Factor Loading	Cronbach's Alpha	rho_A	CR	AVE
Good Governance			0.929	0.944	0.944	0.739
	GG1	0.891				
	GG2	0.857				
	GG3	0.891				
	GG4	0.880				
	GG5	0.858				
	GG6	0.777				
Service Delivery			0.969	0.970	0.971	0.618
	SD1	***				
	SD2	0.774				
	SD3	0.790				
	SD4	0.765				
	SD5	0.783				
	SD6	0.756				
	SD7	0.793				
	SD8	0.800				
	SD9	0.827				
	SD10	0.830				
	SD11	0.797				
	SD12	0.763				
	SD13	0.798				
	SD14	0.809				
	SD15	0.825				
	SD16	0.774				
	SD17	0.745				
	SD18	0.783				
	SD19	0.774				
	SD20	0.735				
	SD21	0.793				
	SD22	0.787				
	SD23	***				

Note: *** = Item deleted due to low loading



4.3.1 Discriminant Validity:

In order to establish whether the constructs within the model are conceptually and statistically different to each other, discriminant validity has to be determined. This step is necessary to make sure that none of the variables in the model captures the same concept to a large extent with another construct. The FornellLarcker criterion, which involves comparing the shared variance of constructs is one of the most well-known methods of measuring this type of validity.

Under this approach, the square root of the Average Variance Extracted (AVE) of a specific construct would have to be higher than its correlation with any other construct in the

model. This is a criterion that shows that an indicator is more associated with the indicators of the construct rather than that of the other constructs, thus justifying its individuality. The diagonal values, which are the square roots of AVEs, are visibly greater in the results given (see Table 4.4) than the relative values of the same relative to the other variables in the table. This trend is one of the reasons to believe that the constructs are different enough and, therefore, fit the requirements of the discriminant validity as defined by Fornell and Larcker (1981) and also by other researchers that followed it, including Hair et al. (2019) and Sarstedt et al. (2021).

Table 4.4

Discriminate Validity (Fornell and Larcker Criteria)

	Good Governance	Service Delivery
Good Governance	0.860	
Service Delivery	0.662	0.786

Henseler et al. (2015) introduced a new and statistically stronger criterion for discriminant validity called the Heterotrait-Monotrait ratio (HTMT). According to this criterion, the HTMT value should be less than 0.85. Additionally, researchers should ensure that the HTMT values are significantly lower than 1, considering the upper

confidence intervals. In our study, the HTMT values for all variables are well below 0.85, as shown in Table 4.5. Therefore, it was determined that the constructs used in this research possess adequate discriminant validity. Consequently, it can be concluded that the measurement model has fulfilled all four criteria.

Table 4.5

Discriminate Validity (Heterotrait-Monotrait Criteria [HTMT])

	Good Governance	Service Delivery
Good Governance		
Service Delivery	0.690	



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4.4 Stage Two: Structural Model Assessment (Hypothesis Testing)

Once the measurement model evaluation is complete, the structural model is examined (Hair et al., 2019). This study used the bootstrapping method with 5000 sub-samples and 234 respondents to determine the significance level of the path coefficients (Henseler et al., 2009; Hair et al., 2019). Hair et al. (2021) and Sarstedt et al. (2021) suggested four steps to assess the structural model. These steps are detailed below.

First Step: Assessment of Collinearity Issue (VIF):

The SEM approach starts with assessing construct collinearity. The VIF score for the predictive construct, Good Governance, was evaluated. The VIF value for Good Governance is 1, which is below the threshold value of 3 (Kariya et al., 2024).

Table 4.6

Testing Hypothesis Using Path Coefficients

Hypot he sis	Relationship	Std Beta	SE	T Value	P Value	CI LL	CI UL	Decision
H ₁	Good Governance -> Service Delivery	0.662	0.045	14.57	0.000	0.576	0.751	Supported

Therefore, collinearity is not an issue, allowing further investigation of path coefficients.

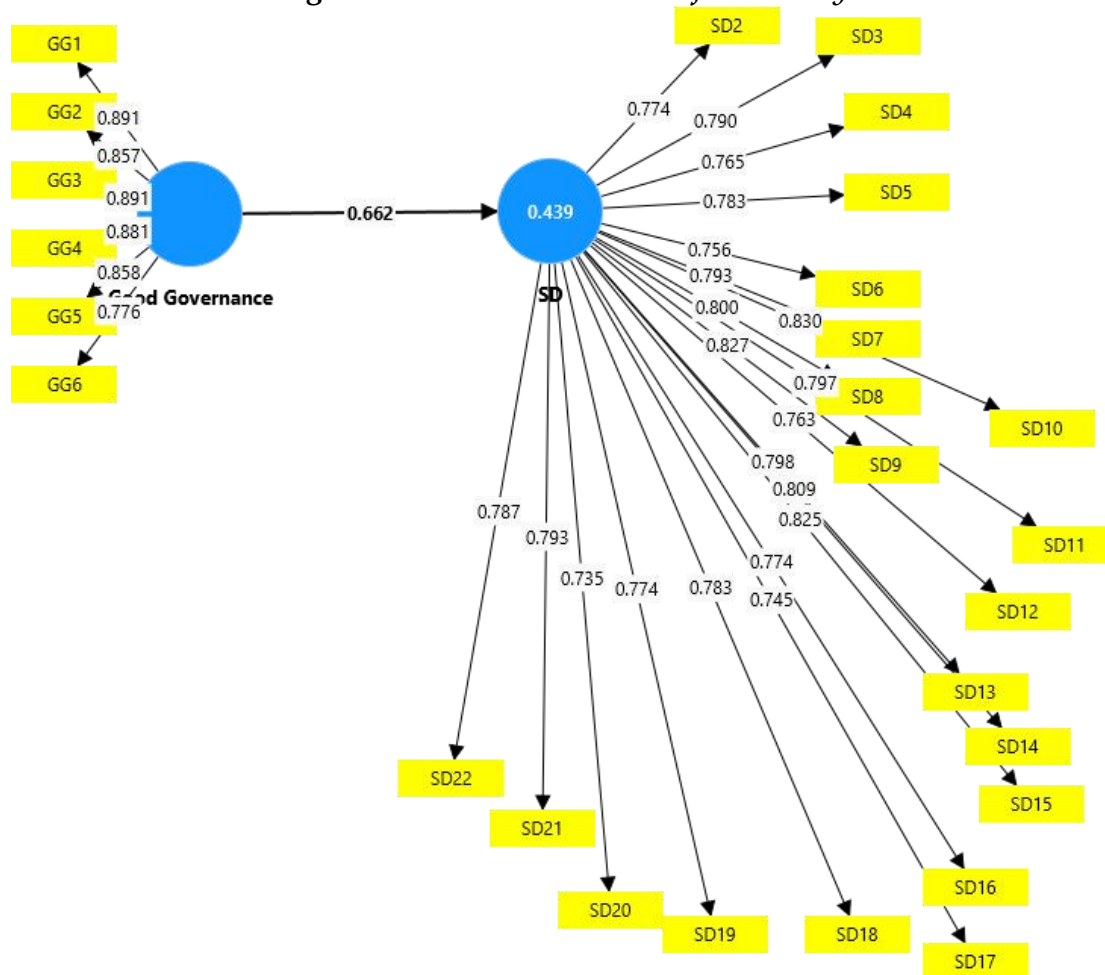
Structural Model Analysis :

The structural model was tested for significance. A path is considered significant if the t-value exceeds 1.96 and $p < 0.05$ (Aguirre-Urreta & Rönkkö, 2018). Bootstrapping results confirmed the hypothesis as statistically significant.

Direct Relationship:

H1 originally proposed that "Good Governance has a positive relationship with service delivery." Results presented in Table 4.9 and Figure 4.1 showed a statistically significant association between Good Governance and service delivery ($\beta = 0.171$, $SE = 0.080$, $t\text{-value} = 2.144$, $p\text{-value} = 0.032$, $CI\ LB = 0.020$, $CI\ UB = 0.337$), thus supporting H1.

Figure 4.1 Structural Model of the Study



4.4.1 Third Step: Assessment Predictive Relevance (R-square and f-square):

To determine the model's predictive significance, we examine the R² of the endogenous construct and the f² effect size of the predictor construct. The coefficient of determination (R²) measures the model's explanatory strength, also known as in-sample predictive power, and indicates the variance explained in each of the endogenous components (Shmueli &

Koppius, 2011). R² values range from 0 to 1, with higher values indicating greater explanatory power. Generally, R² values of 0.25, 0.50, and 0.75 are categorized as weak, moderate, and substantial, respectively, in various social science fields (Hair et al., 2011)., the R² of the current study is 0.45 suggests a moderate fit. Further, Table 4.7 demonstrates that the f² values of the predictor constructs are well above the threshold



Table 4.7

Effect Size (f-sq)		
IV	DV	F-Square
Good Governance	Service Delivery	0.781

5. Discussion

The hypothesis that good governance increases service delivery in the health sector is supported by recent empirical studies. Good governance with various dimensions, like, voice and accountability, stability, effectiveness, regulatory quality, and the rule of law, plays a key role in building effective service delivery systems in the health sector. Voice and accountability, if ensured, the health service delivery is much aligned to the needs of the community, and transparency and accountability are considered very crucial for hospital governance and effective resource utilization (Abor & Tetteh, 2023). Similarly, stability ensures consistency and reliability in health service delivery (Khosravi et al., 2023). Likewise, effective governance, promotes citizen friendly health practices and policies, improves accessibility and citizen satisfaction (Abdi et al., 2023). The other important principles of good governance are that there should be high quality regulation which guarantees that there is compliance with any standard that will protect the safety and effectiveness of healthcare services, and this is the one that will affect patient outcomes. Strict regulatory schemes and high quality-control measures constitute

good governance practices, which make it easier to provide high-quality services and patient outcomes (Rahmadhani et al., 2023). At the same time, the rule of law helps reduce abuse of resources and foster trust in healthcare systems, which facilitates ethical operation and adherence to regulations. These laws and regulations need to be well implemented to ensure high-quality healthcare delivery (Moila, 2023). The multidimensional nature of good governance has positive effect on the parameters of the service-delivery, such as the availability of the physicians, quality of diagnosis, availability of drugs, patient satisfaction, and health outcomes. Patient-centered governance will provide sufficient time of consultation, and the models of fair payment, which will allow the equitable access to healthcare. Besides, the standards of reception facilities and the integrity of medical personnel also play the central role in building trust between a patient and a healthcare provider. Good governance also focuses on professional growth and the actual implementation of clinical guidelines, where comprehensive check-ups are made, and proper follow-up care is taken (Malakoane et al., 2023). Moreover, properly equipped and properly maintained

health facilities, supported by frequent audits and long-term investment in the medical infrastructure, are a necessity in provision of high-quality care (Santos & Silva, 2023). On the whole, transparency, accountability, stability, quality of regulations, and compliance with the rule of law can be significantly improved to promote health service delivery, thus leading to improved health outcomes and healthcare system sustainability.

6. Conclusion

Infrastructure alone will not make healthcare systems any better. In essence, they rely on institutional governance, decision making procedures and accountability regimes. This paper attempted to expound how governance, with integrity and in line with the interest of the people, can be used as a tipping point to enhance the performance of health service delivery in Pakistan and how it can be applied in the most underserved province of the country Balochistan. The information gathered among the health professionals show that there is a high correlation between the existence of sound governance practices and high service delivery outcomes. Hospitals and health units that operated with clear accountability models, transparency and responsive leaderships had higher chances of providing consistent, accessible, and patient-focused care. All these

improvements could not be explained only by the rise of funds or personnel efforts; they depended on the use of the available resources and management or mentoring of health workers.

One of the insights learned during the process of the study refers to the interrelation between the governance and the expectations of people. When people become distrustful in the institutions of the state, especially because of inefficiencies or improper use thereof, governance can go beyond administrative role and become a tool to heal said distrust. Whenever patients believe that there is fairness in how practices are carried out, that access to clinicians is timely, the staff treats them with respect, and the management system is observable, the patients start seeing value in public healthcare again. Perceived value, on its part, legitimises the system. The expediency of the governance-related reform especially in the Balochistan where the scarcity of resources is the rule of the day is premised on certain basic principles. The analysis indicates that reforms that are based on the principles of governance are not necessarily conditional on the basis of high capital investment; instead, they require the establishment of roles, principled and pragmatic leadership, and stable feedback mechanisms and a firm belief in social service. The study introduces the notion of public value into the



discussion and this reinvents the process of evaluating service delivery as not necessarily in the provision of services but in the address to whether that service delivery can address real needs and fulfil the needs and dignities of the population. In this respect, the administration cannot be imagined outside of care and health institutions confirm once again that they are some of the crucial social institutions, where the corporeal, but also the societal realms are concerned.

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