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Linking Clinical Governance And Budgetary Mechanism To Public Health Outcomes: A Study Of Tertiary Healthcare In Punjab

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Abstract

This study investigates issues related to governance and deficient health funding in tertiary healthcare hospitals in Pakistan. It also addresses whether organizational culture in the hospitals have any moderating influence on service delivery mechanism. The data comprises surveys taken from 393 practitioners working in eight teaching hospitals in Punjab. The data was analyzed using Covariance Based Structural Equation Modeling (CB-SEM) to test the hypothesized relationships.

The findings show a highly significant impact of governance and budgetary issues on quality of service delivery mechanism. The results of the analyses are statistically significant and show a positive impact indicating that governance and budgetary issues have a positive impact ($\beta = 0.20$, $\beta = 0.20$, $p < 0.001$ respectively) on the quality of service delivery at the tertiary hospitals examined. In respect of the moderating impact, there exists a positive influence ($\beta = 0.099$, $p < 0.001$) of organizational culture on the relationship of budgetary issues on service delivery mechanisms in the hospitals. The positive direction indicates that organizational culture enhances the impact of budgetary issues on healthcare service delivery. However, no effects are noticed for the influence of organizational culture on governance and service delivery relationship.

The research expands on the scant available literature on governing issues of tertiary healthcare, especially in this region of an emerging economy. It addresses some critical financial issues related to inequalities, dilapidated infrastructure, budget leakages, non-responding behavior of practitioners, and other management issues that are faced in the public health sector. In face of the dire conditions of healthcare in this region, the study highlights that insufficient resources and funding from the Government for public sector, is a contributing factor in the poor healthcare available to the public.

Key Words: Governance, Budgeting, Service Provision, Human Health, Teaching Hospitals, Practitioners, Organizational Culture.

1. Introduction

Healthcare is important for the well-being of mankind. Researchers have stressed that strong and healthy people contribute to a healthy-wealthy society both in terms of economy and society. Health care services vary across states, groups and individuals resulting from differing social and financial provisions and the country's national health policies. Further healthcare services are customized in accordance with the stages of the diseases (World Bank Group, 2017) prevalent in that country.

In Pakistan, the government is the major provider of healthcare to its people, even when there are teaching and curative hospitals and healthcare in the private sector. After the 18th amendment, in the constitution of Pakistan, the responsibility of health and education of the country has been shifted to the provinces. Pakistan's per capita health expenditure is USD 49 or PKR 6,000(approximately) which is less than the World health organization (WHO) benchmark of USD 86 per capita (Ministry of Finance, 2017-2018). During the fiscal year 2016-2017, spending on health care was PKR 146 in Pakistan that shows an increase of 9% from 2015-2016 (World Health Organization, 2017) but still far behind the benchmark.

The inefficiency of government spending on health services due to weak management, lack of good governance practices, and professionalism, results in non-responsive service delivery mechanism in the hospitals (Ali, 2012). Healthcare expenditure is strongly associated with a country's total budget and fiscal sustainability. United States of America recorded health spending of 18% of its GDP, and average amount spent on healthcare per person of USD 10,348 in 2017. With this more appropriate percentage of health expenditure, USA can deal with tertiary care as well as quaternary care (Kamal & Cox, 2018).

In most emerging countries, accountability, transparency, and rationality behind investments, are overall missing in the health sector. Deficient financing has been a constant challenge that undermines service delivery mechanism (Kaplan & Dominis, 2013). Aggravating the situation, medical practitioners demand an increase in remuneration due to high-risk factor involved in this field. Researchers (Montanari & Nelson, 2013) contend that remuneration systems must be fair in order to avoid decline or convergence in social service systems. Developed nations spend more appropriate percentage on healthcare, by this they can manage all related expenses such as physician remunerations, infrastructure, medicine, medical goods and reduce out of pocket payments (World Bank, 2017).

Researches (Ahmad & Sheikh, 2018; Khan, 2022) have observed that Pakistan is plagued with lack of access to: basic health care services, proper infrastructure, medical personnel, adequate remuneration and suffer from low-bed capacity, missing departments and machinery, and lack of facilities and medicines. The main cause is paucity of funds due to deficient budgets and budget leakages, where budget leakage represents the difference between approved health budget and amounts received by health providers (Mammon & Rabbani, 2017).

Organizational Culture

The Denison & Naelly, (1997) model of organizational culture encapsulates the fundamental values and expectations that signify the deep level of organizational culture. These fundamental norms form the basis for the more visible cultural mechanisms such as values, codes and customs that are evidenced. The model is dependent on some cultural characteristics of participation, constancy, willingness to adapt and accomplish tasks, which has been the center of some previous studies on organizational performance (Yilmaz & Wagener, 2008). The first trait of Denison & Naelly, (1997) cultural framework encompasses effective involvement, empowerment of personnel, team oriented work behavior and enhancement of human competency at all stages. Adaptation is difficult for an organization whose internal and external adaptations, might be unbalanced. Adaptability in an organization makes practitioners more aware of the client's needs and more receptive to take risks, while learning from their errors (Gershon, 2004).

1.1 Research Objectives

The study emphasizes on the inequalities in the health budget, lack of professionalism, deficient funding, and governance issues of practitioners, especially in teaching hospitals in the Punjab, Pakistan. That is why this study endeavors to examine the budgetary

allocation and governance issues affecting service delivery mechanisms in the hospitals. It also delves into whether the organizational culture has any influencing impacts in the hospitals.

1.3 Research Hypothesis

H1. Governance issues have significant positive impact on the quality of service delivery mechanism of tertiary healthcare of Punjab.

H2. Budgetary allocation has significant positive impact on the quality of service delivery mechanism of the tertiary healthcare of Punjab.

H3. Organizational culture moderates the relationship between governance issues and service delivery mechanism of healthcare.

H4: Organizational culture moderates the relationship between budgetary allocation and service delivery mechanism of healthcare.

2. Literature Review

Budget Allocation

Most health systems in developing countries are generally task-oriented and challenged to fulfill public health needs and obtain clinical outcomes with limited funds. The lack of sufficient capital is impacting on practitioner's salaries, infrastructure, and laboratory and surgical machinery (Khan SU, 2022). Leakage of funds may result and inefficient fragmented systems of documentation in the clinics may result in messed up schedules for practitioners, delayed payments, and eventually drop in health system (Lucero-Prisno, 2022).

Online financial systems are beneficial for hospitals and clinics as they budget leakages. facilitate payment processing time, reduce delays of payment and enhance the probability for completing payments. Hence, it could enhance the practitioner's morale, commitment and could manifest in complex solutions in health reforms. Remuneration concerns are generally related to strikes by young doctors, and this is a major factor in the country's brain drain (OECD, 2022). Digital payments strengthen accountability in respect of cash outflows. Online payments might enhance the capability to track wherever funding is being consumed and thus decrease leakages, so that proposed recipients obtain the complete worth of due funds. So as to processing payments, health workers and facilities should be reporting work hours and verify from multiple managerial ranks (McConnell & Mahajan , 2022)

Capital investment in infrastructure, highly advanced equipment and enhancing remunerations are influenced by administration policy and decision (Ahmad & Sheikh, 2018). The escalation in population, burden of diseases and health patterns in the underdeveloped/developing economies necessitates need to expand and strengthen the hospital staff (Sasikumar et al., 2017). For achieving this target, public sector needs to emphasize on the appropriateness of personnel skills mix and job rotation. Alert and responsive management can bring change in the health care system, while award of some inducements and motivation will boost work efficiency and make privileged appointment attractive (Ejaz & Shafique, 2013).

Fair budgetary allocation should consist of flexibility in allocation, tenure security for established clients, and intended response by consumer, and the allocation procedure must be considered as fair and equitable by the individual users. Some researchers (Guindo, 2012; Gibbons & Alashry, 2019) argue that while allocating budgets to the health sector, important aspects are not considered by policy makers, hence flaws accrue in budget management.

Governance

The objective of governance in hospitals should be to safeguard interests of clients and other stakeholders through implementing proficient, responsible, inclusive and accountable institutions. Strong institutions and improved governance are specifically significant for the world's most vulnerable countries (IDA, 2016). It appears that the global population reveals mistrust about Public Sector Institution.

Recent World Bank group surveys with opinion leaders confirm that governance concerns is at the apex of state policy (World Bank, 2015). Good governance draws from Government best practices and strategies. However, in Pakistan good governance seems to elude the formulators of policy and public of Pakistan. Hence proper governance has become a challenge and undermines the service delivery mechanism and budget allocation in hospitals (Kaplan & Palen, 2013). Developing countries can enhance health systems by adopting effective accountability mechanisms that focus on continuous improvement in the quality of health service delivery (George, 2009). Weak accountability, transparency and rationality behind investments are overall missing in the health sector.

Governance tensions arise from differences in managerial practices and incompatibilities in directions and actions concerning healthcare services. These governance tensions are manifested at different domains of health sector: primary, secondary and tertiary care administration. These may be categorized into three forms: tensions on professional ethics, organizational standards, and clinical practices, that are described according to the various stages of healthcare within its managerial ranks (Mériade & Rochette, 2022) and this results in challenges and problems for the clinics. Whereas, a hospital environment that is categorized by its clinical practices, governance structure, personnel and generally a hybrid administration mode requires smooth operations without any tensions. Tensions in healthcare services demonstrate the significance of forming associations and mutual communication among micro, middle, and macro phases in healthcare services (Alfiero et al., 2021).

Consequently, the accessibility of facilities and equipment, availability of competent practitioners, medicines and also fairly distributed resources is vital for clinical effectiveness and outcomes (Persad & Emanuel, 2009). It was evidenced that lack of national funding, poor management of public funding, lower degree of transparency in financing were some factors contributing to deficit allocation of budgets (Florescu & Cristina , 2018). Inequality in health care budget allocation was an issue of concern to medical practitioners in Kenya where referral hospitals faced financial challenges and staff resignations due to low morale and deficient remuneration (Stuckler et al. 2011, Guindo, 2012). Perception and observation regarding governance, its elements and issues has been discussed in many research studies. The State government works primarily in the interest of influential entities and ignores the public who are at the behest of autocratic health governing boards (World Bank, 2009).

Service Delivery

The service delivery mechanism has transformed health care services around patients' needs and expectations, by making it more responsive and socially desirable while simultaneously achieving best health outcomes (Montanari & Nelson, 2013). Shorter hospital stays of procedural patients on average (6 days) can be more cost effective. It may result in quality of care and service provision in developed countries (Sawyer, 2018). In Pakistan, only 27% of the whole population benefited from full healthcare coverage which largely included government employees and members of defense forces, and remaining 73% were dependent on out-of-pocket payments.

Service quality parameters such as provision rate, length of stay and waiting time in hospitals have been established on the high level of administrative leadership. Long length of stay and waiting time indicates a low level of organizational leadership and inefficiency of health service delivery (Hameed et al. 2017). Prosperous organizations continuously work for improving the existing services and enhancing the willingness of personnel for innovation and up-gradation in procedures. In other respects of organization's culture, change happens due to changing core objectives of organizations (Ehtesham & Masood, 2011).

2.1 Theoretical Underpinning

The following theories are studied to determine the theoretical framework of this study:

- Theory of good governance in public sector institution
- Cost-Benefit Analysis (CBA)
- Denison Theory of Organizational Culture
- Functionalist Approach

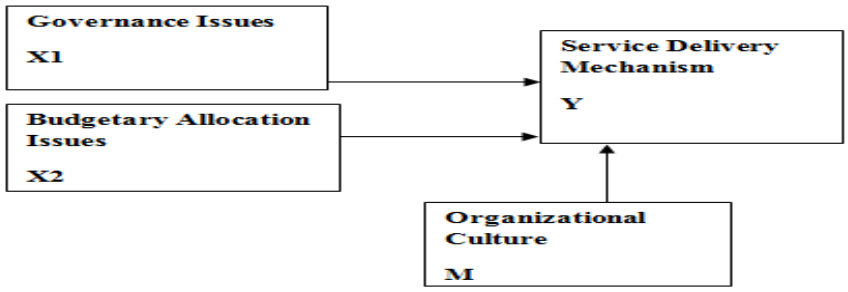
Theory of good governance in public sector institutions describes three mechanisms: a) to promote good governance in government sector, to implement internal rules and restraints in health sector; b) decentralizing and, c) empowering stakeholders for effective service delivery and feedback (Minogue, 1998).

The Cost-Benefit Analysis (CBA) technique is used to assess public expenditure decisions and assist government and society to allocate the scarce resources in the best productive way (Kazi et al., 2009; Sasikumar et al., 2017). The CBA social and fiscal aim is to attain maximum efficiency and pass on net benefits to society.

Public sector organization plays important role in serving the society and aims to get maximum economic efficiency. Due to high interdependence of public sector organizations on government spending and governance, CBA is a common tool of analysis for public sector organization (Folliot, 1930) and health care. Denison & Naelly (1997) theory dilates on the cultural traits that promote superior performance of services such as: mission, involvement, adaptability and consistency. According to the author, these traits exist in the culture of some organization and lead to effectiveness of professional practices (Ehtesham & Masood, 2011). Talcott Parsons (1951), proposed the Functionalist Approach for good health and effective medical care and advocated that hierarchy is important for smooth functioning of society, and for patient- medical practitioner relationship.

Drawing from theory and past literature, we formulate the conceptual model of the study as shown in Figure 1. Budgetary allocation and governance issues are taken as the independent variables and service delivery mechanism dependent variable, with organizational culture a moderator

Figure: 1 Research Framework of Study



3. Research Methodology & Data Analysis

In order to align the research objectives with methodology, cross-sectional survey using a structured questionnaire was conducted to investigate the moderating role of organizational culture in a relationship with governance, budgeting issues and service delivery mechanism. A deductive approach is

used for this study as it involves theoretical testing of a research hypothesis that is only intended for research testing (Morgan, 2007). Sources of the research variables are provided in Table 1.

Table 1: Research Variables

Sr.	Variable	Sources
1	Governance Issues	(World Health Organization, 2014, p. 9); (World Health Organization, 2014, p. 9); (Camaro & Jacobs, 2011); (Rajalakshm, Mohan, & Babu, 2011); (Sarto, Veronesi , & Kirkpatric, 2018); (Azilaku, 2020).
2	Budgetary Allocation	(Mccoy, Chand, & Sridhar, 2009) ; (Rajalakshm, Mohan, & Babu, 2011); (Thomson V. , 2016); (Mammon & Rabbani, 2017).
3	Organizational Culture	(Sarto, Veronesi , & Kirkpatric, 2018); (Denison & Naelly, 1997).
4	Service Delivery Mechanism	(Martin & Pimhidzai, 2013); (Derosario, 2010); (Abuosi & Atinga, 2013) ; (Sarto, Veronesi , & Kirkpatric, 2018); (World Health Organization, 2012)

420 questionnaires were circulated to collect the required information accurately and carefully. However, 27 questionnaires were omitted due to incomplete information resulting in sample of 393 questionnaires in total. Each scale item was named, numbered and coded into SPSS (Statistical Package for Social Sciences). The dataset carefully checked for missing values, outliers, normality, and multicollinearity to fulfill the assumptions statistically.

Table 2 Represents each construct item name and corresponding label

Constructs and Items

Constructs	Item/Factor Name	Item/Factor Label
Budgetary Allocation	BA1	Adequate resources availability
	BA2	Fulfill Financial Obligation
	BA3	Medicine Provision
	BA4	Procedural Equipment and Machinery
	BA5	Updated Technology
	BA6	Health Insurance
	BA7	Generate Revenue from reception entry
	BA8	Health card Impact
	BA9	In sufficient funding
	BA10	Remuneration
	BA11	Budget Leakage

	BA12	Practitioner ‘switching
	GI1	Equality distribution
	GI2	Fair and non-discriminatory
	GI3	Up to date equality and diversity
	GI4	Transparent in governing and clinical activities
	GI5	Governing board review clinical practices and outcomes
	GI6	Ongoing compliance
	GI7	Regulatory requirements
	OC1	Decisions communicated at all level
Organizational Culture	OC2	Information shared widely
	OC3	Decentralized system
	OC4	Clinical planning is ongoing process
	OC5	Encourage cooperation among departments
	OC6	Team oriented behavior
	OC7	Leadership
	OC8	Consistent values that govern the work method
	OC9	Ethical code of conduct
	OC1 0	Win-win approach Clear mission
	OC1 1	Strategic oriented to cope up problems Shared vision
	OC1 2	Develop motivation
	OC1 3	
	OC1 4	
	SD1	Hospital has modern outlook
	SD2	Facilities visually appealing
	SD3	Practitioners with professionalism
Service Delivery	SD4	Administrative documentation decorum
	SD5	Timely management of clinical issues
	SD6	Empathic behavior of staff
	SD7	Error free work
	SD8	Clinical efficiency
	SD9	Work accuracy in first attempt
	SD1 0	Desired clinical outcomes Provide prompt service
	SD1 1	Practitioners cooperation Practitioners never say engaged with others
	SD1 2	Practitioners behavior provided confidence to patients Patients feel safe in clinical practice and dealing
	SD1	Courteous behavior

3	Competent staff
SD1	Individual attention
4	Hospital timing convenient for public
SD1	Practitioners committed to work
5	Hospitals have best interest at heart
SD1	Practitioner understand specific needs
6	
SD1	
7	
SD1	
8	
SD1	
9	
SD2	
0	
SD2	
1	
SD2	
2	

The target population of the study is practitioners of public sector teaching hospitals of Punjab. These teaching hospital composites of population in this study are geographically dispersed all over Punjab. The population is very large thus it is not possible to investigate the whole so the respondents to the questionnaire were taken from an appropriate sample of the targeted population. A purposive sampling technique in the manner of Sekaran & Bougie (2010) was used to get the response from relevant respondents related to healthcare as per our requirements.

The participant's gender, age, qualification and marital status were inquired to develop descriptive analysis of demographic variables as shown in Table 3.

Table: 3 Participants Demographics

Variables	**Category**	**Frequency**	**Percentage**
Gender	Male	245	65
	Female	148	35
	Total	393	100.0
Age	22-30 years	122	31
	27-37 years	40	10
	38-45 years	196	50
	Above 46 years	35	9
	Total	393	100.0
Education	MBBS	181	48
	TRAINEE	152	39

	FCPS	20	5
	MCPS/ MS	30	8
	Total	393	100.0
Marital Status	Single	160	40.1
	Married	233	59.9
	Total	393	100.0

The descriptive statistics actually describe and summarize the features of sampled data in form of mean, mode, median and standard deviation, skewness and kurtosis. The mean value of Governance issues (3.29) indicates that respondents positively perceive the service delivery and performance of healthcare for public. Budgetary allocation mean (3.18) value suggests that most of the respondents perceive significant impact of funding on performance. The values of service delivery mechanism have (3.27) and organizational culture (3.68) point out the degree of agreement towards performance and supportive culture in the health organization. Skewness measure symmetry of distribution and fall between -3 and +3 and kurtosis determines the heaviness of distribution tail and range between -10 and +10 and results reveals negative kurtosis near about the cutoff criteria.

Table: 4 **Descriptive Statistics**

Construct	**Mean**	**Std. Deviation**	**Skewness**	**Kurtosis**
BUDGTALL	3.18	0.898	-0.224	-0.905
GOVRNCE	3.29	0.957	-0.612	-0.723
ORGCUL	3.68	1.011	-0.993	-0.337
SERDELM	3.27	0.868	-0.409	-0.623

Reliability and validity of questionnaire is measured by applying different tests. Reliability is referred to as the consistency and stability of findings and validity is designed to measure truthfulness. Reliability and validity of questions is measured by test-retest technique that determines repeatability and for internal consistency, Coefficient's Alpha test is used to ascertain how well responses to similar items are uniform or measure the same thing. Validity of questionnaire is checked through concurrent and discriminant validity by confirmatory factor analysis that determines appropriate content and whether the measures adequately measures the concept that is in the first stage of structural equation model by using Amos software. The results of these tests are depicted in Table 5.

Table: 5 Construct Reliability and Convergent Validity Measure

Construct	**Cronbatch Alpha**	**CR**	**AVE**	**MSV**	**rho_A**

Governance Issues	0.691	0.963	0.55	0.443	0.963
Budgetary Allocation	0.713	0.925	0.506	0.442	0.925
Organizational Culture	0.727	0.962	0.642	0.423	0.962
Service Delivery Mechanism	0.704	0.958	0.509	0.432	0.958

The results indicate that measures used for this study are satisfactory for discriminant validity. Construct reliability measures the consistency through composite reliability CR test. Governance Issues and budgeting are both exogenous and reliable at 0.69% and 0.71%. Research suggests that the value of AVE should be ≥ 0.50 and CR value should be ≥ 0.60 respectively, which validates the convergent validity.

3.1 Discriminant Validity

Table: 6 Discriminant Validity Measures

	BUDGTALL	**GOVRNCE**	**ORGCUL**	**SERDELM**
Budgetary Allocation	0.589			
Governance Issues	0.649	0.666		
Organizational Culture	0.401	0.435	0.651	
Service Delivery	0.658	0.648	0.658	0.365

Discriminant validity illustrates the extent of how one construct is varied from other constructs. It describes that loading and cross loading for latent constructs should be higher than its own construct, establishing evidence of discriminant validity among all constructs. The study of discriminant validity is accessed through HTMT approach (Hair & Black, 2006). The study follows the two-step model in SEM: first is measurement model and second the structural model. CFA is used to test the measurement model for all latent constructs with relevant scale items loaded on its associated measure. The result of CFA shows good model fitness in measurement model having 2 latent exogenous variables where items are best fitted in their respective scales. Figure 2 provides results of the CFA.

Figure : 2 Confirmatory Factor Analysis

Two Factor Model

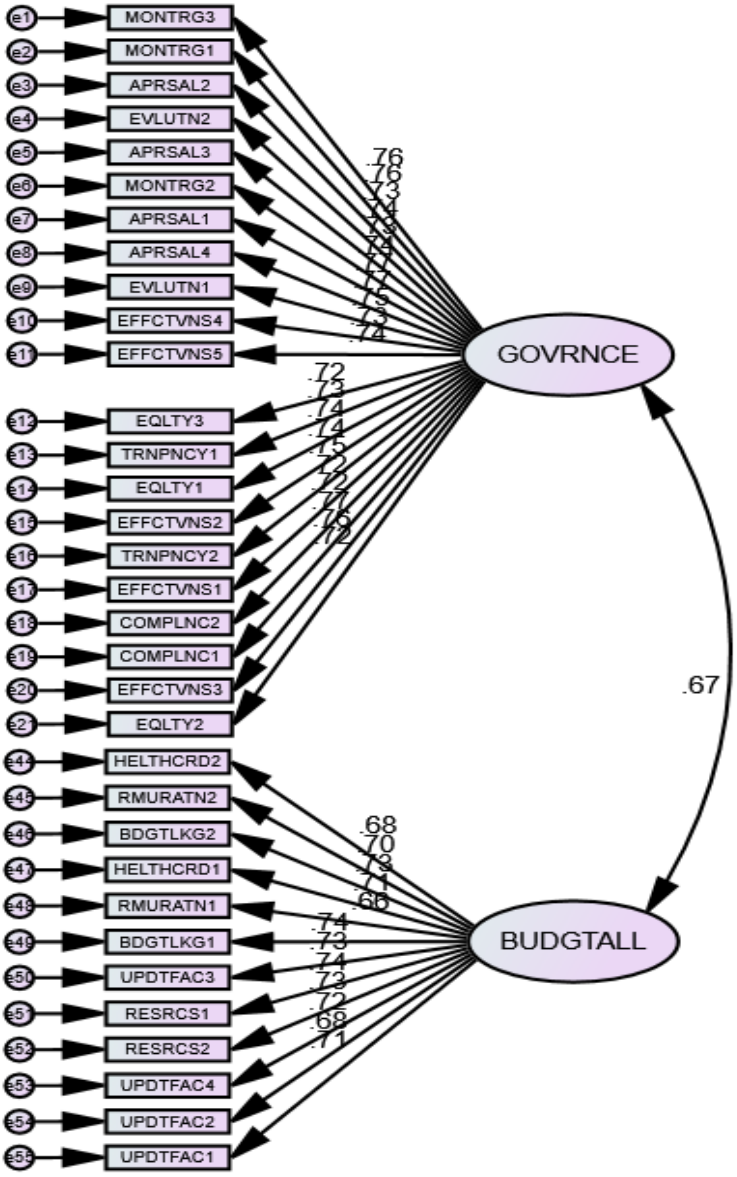


Figure: 3 Confirmatory Factor Analysis

Three Factor Model

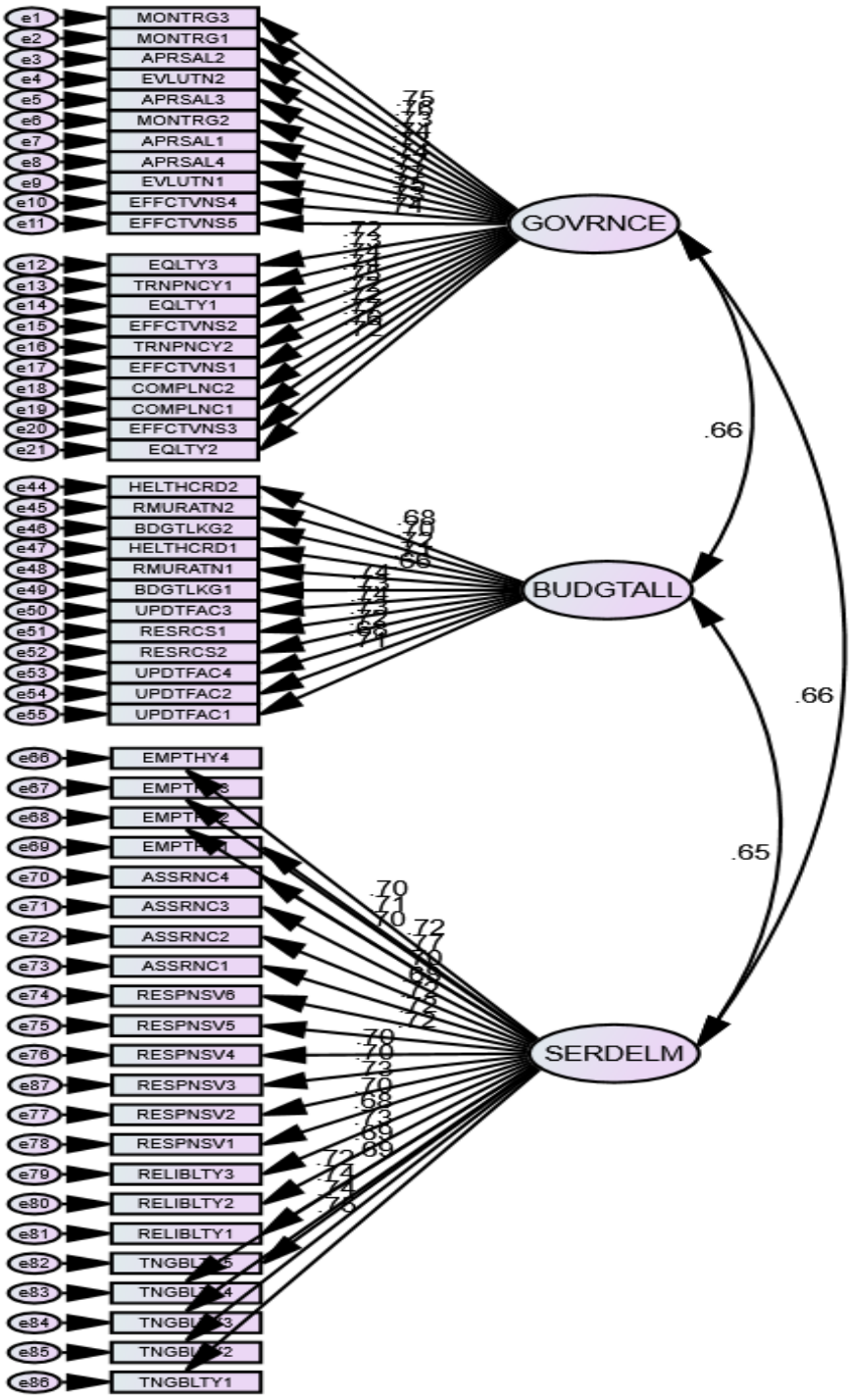


Table:7 Model Fit Summary for Measurement Models

Model	CMIN/DF	TLI	CFI	RMSEA	NFI	SRMR
Two Factor Model	1.506	0.967	0.969	0.036	0.913	0.034
Three Factor Model	1.437	0.952	0.954	0.033	0.863	0.035

Full Measurement Model	1.271	0.957	0.958	0.026	0.829	0.036

4. Results

Figure: 4 Structural Model, IV to DV

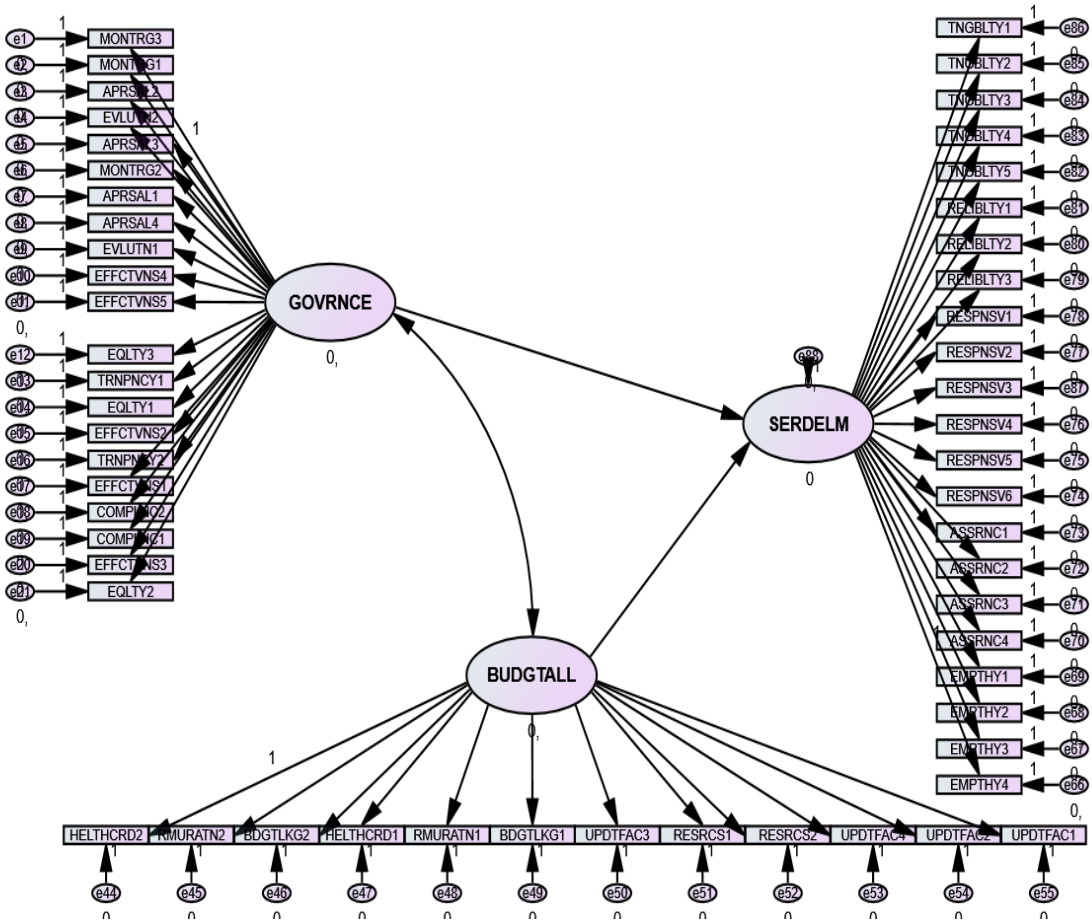


Table: 8 Regression Weights: (Group number 1 - Default model)

Outcome	<---	Predictor	Estimate	S.E.	C.R.	P	R- Square	Hypothesis
SERDELM	<---	GOVRNCE	.202	.051	3.339	***		H1 Accepted
							0.58	
SERDELM	<---	BUDGTALL	.272	.058	4.737	***		H2 Accepted

Table 8 illustrates results of the structural model. The results show that first two hypotheses are found to be statistically significant at $p < 0.001$. The first hypothesis indicates that impact of governance issues on service delivery mechanism are positively significant. The consequences of the structural model illustrated positive relationship of service delivery mechanism with these values ($\beta = 0.20$, $p < 0.001$). Correspondingly, second hypothesis on the association of with budgeting issues and service delivery mechanism show significantly positive results ($\beta = 0.27$, $p < 0.001$). Therefore, we evidence a direct relationship between governance issues and service delivery, and budgetary allocation with service delivery mechanism.

Table:9 Moderation of Governance Issues & Organizational Culture

MSERDEL	Coeff	SE	T-value	P-value	R-Square	Hypothesis
Constant	3.2546	0.0518	62.8297	0	R-sq	**H3 Rejected**
MGOVRN	0.6364	0.0604	10.5295	0	**0.4089**	
MORGCUL	0.0867	0.0656	1.3215	0.1871	R2-chng	
MGOVRN x MORGCUL	0.0238	0.0656	0.3632	0.7166	**0.0002**	

Figure 4: Moderation Graph of Organizational Culture on Governance-Service Delivery

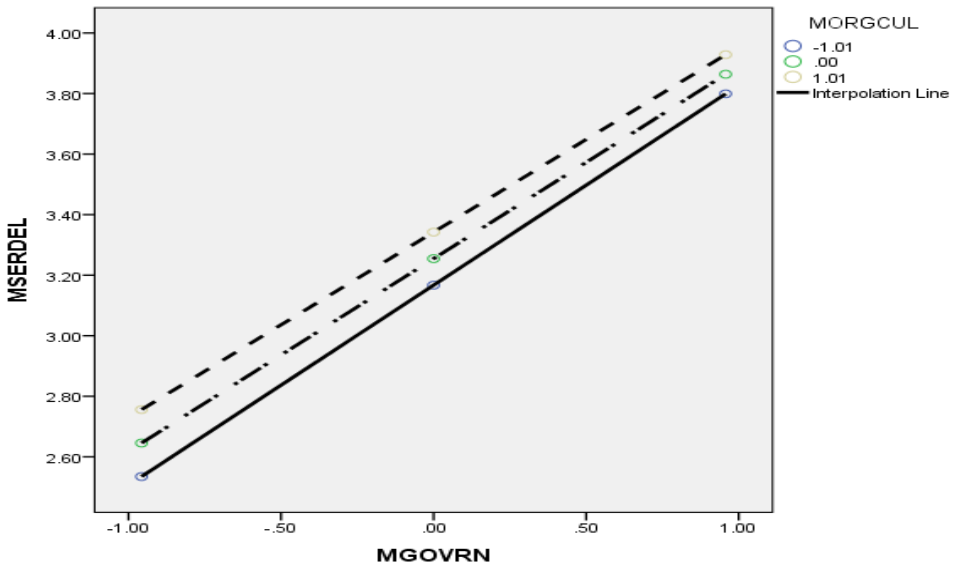


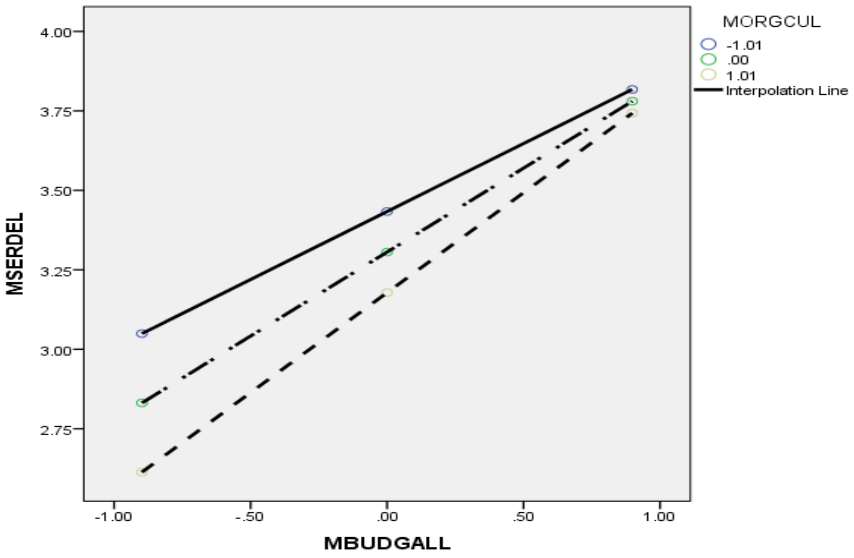
Figure 4 depicts graph of impacts of the moderating variable. The third hypothesis deals with moderating impact of organizational culture on relationship between governance issues and service delivery mechanism in tertiary healthcare. To examine the moderating interaction term of Governance and Organizational Culture, it is calculated through using orthogonal interaction method. We observe no

significant moderation effect of organizational culture on association between governance and service delivery mechanism. The graph shows that lower, average and upper value of organizational culture impact on governance & service delivery mechanism does not change and the graph lines remain parallel to each other. Thus the third hypothesis is rejected.

Table: 10 Moderation of Organizational Culture on Budgetary Allocation-Service Delivery

MSERDEL	Coeff	SE	T-value	P-value	R-Square	Hypothesis
Constant	3.3058	0.0378	87.5349	0	R-sq	
MBUDGALL	0.5282	0.0425	12.4223	0	**0.3934**	**H4 Accepted**
MORGCUL	-0.1262	0.0391	-3.2252	0.0014	R2-chng	
MBUDGALL x MORGCUL	0.0995	0.043	2.3135	0.0212	**0.0083**	

Figure 5: Moderation Graph of Organizational Culture on Budgetary Issues -Service Delivery



The last hypothesis is relevant to moderating impact of organizational culture on budgetary allocation issues and service delivery mechanism. The results of the moderating interaction term of organizational culture and budgetary issues with service delivery mechanisms are significant ($\beta = 0.099$, $p < 0.002$).

Table: 11 Direct Hypothesis and Moderation Testing

Hypothesis	Relationship	Beta	p-value	Decision
H1	GOVRNCE-SERDELM	0.20	< 0.001***	**Yes, Supported**
H2	BUDGTALL-SERDELM	0.27	< 0.001***	**Yes, Supported**
H3	GOVRNCE-ORGCUL-SERDELM	0.023	0.719	Not Supported,
H4	BUDGTALL-ORGCUL-SERDELM	0.099	< 0.001***	**Yes, Supported**

Table 11 represents the hypothesized relationships tested. The results shown after hypothesis testing that there is insignificant moderating relationship existing between governance issues and organizational culture (β= 0.023, p=0.71). However, H1, H2 and H4 are accepted as results are statistically significant and indicate positive association among variables. Correspondingly, first two hypotheses of this research paper regarding association of governance and budgeting issues on service delivery mechanism shows significantly positive results (β= 0.20, < 0.001***), (β =0.27, p < 0.001***) and (β= 0.099, < 0.001***).

The graphs 4 & 5 show that lower, average and upper value of organizational culture effects on governance & service delivery mechanism does not change and the lines remain parallel to each other but moderating interaction term of budgetary issues and organizational culture indicate a direct affect among interaction term and organizational culture is significant.

4. DISCUSSION AND RESEARCH IMPLICATIONS

Study results found support for all the hypothesized relationships except for third hypothesis which relates to impact of organizational culture between governance and service delivery mechanism.

Service delivery mechanism of tertiary healthcare is a basic necessity for human beings. No compromises or deficiencies should be tolerated in providing quality care to public at these facilities.

The results show that governance and budget allocation have a significant impact on service delivery in hospitals. The responses indicate that on average practitioners are not fully satisfied in the area of governance and budgetary allocation, and mean responses are around 3 showing a diluted fair rating. Generally, the public cannot afford private sector medical facilities so they rely on public sector health care. But practitioners feel that budget allocations are not adequate and budget allocations do impact quality of healthcare service delivery. Insufficient funding aggravates the public distrust in the hospitals, due to lowest priority provided to the poor people.

Prior research provides theoretical basis for including organizational culture as a moderating variable. The results illustrate that practitioners, with supportive organizational culture behave positively and respond well to budgetary allocation issues. The proper funding from government enables them to manage clinical risk and provide quality healthcare services in tertiary care of Punjab. However, practitioners do not feel that the organizational culture has an impact on governance issues. Though there is a strong relationship between governance and quality of service delivery, practitioners do not see

organizational culture having any impact on this association.

This study has several implications for both theory and practice. It provides academicians and managers a rich framework for further research and policy-making in the healthcare units. This research is a based on tertiary healthcare and data is collected from teaching hospitals of Punjab and so may not be generalizable to the whole of Pakistan. Therefore, further studies may conduct a comparison of public and private tertiary care of Punjab, as well as in Pakistan.

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