JRIIE Journal of Research Innovation and Implications in Education
Center for Research Implications & Practice

Website: www.jriiejournal.com ISSN 2520-7504 (Online) Vol.10, Iss.2, 2026 (pp. 564 - 579)

Workforce Alignment and Health Service Delivery in Selected Districts of Central Uganda

Peter Kaddu, Regis Zombeire & Nazarious Rukanyangira
Department of Public Administration and Management
Nkumba University, Uganda
https://orcid.org/0009-0009-5036-1596
Email: kaddupeter2@gmail.com

Abstract: *Human resource planning remains a critical determinant of health service delivery, particularly in resource-constrained health systems. However, many public health facilities in Uganda continue to experience challenges related to workforce deployment, role mismatch, staff shortages, and uneven distribution of health workers, which may affect the quality of services provided. This study examined the influence of workforce alignment on perceived health service delivery in selected districts of Central Uganda. A convergent mixed-methods design employing both quantitative and qualitative approaches was adopted. Data were collected from 158 respondents selected from public health facilities using questionnaires, interviews, focus group discussions, and document reviews. Quantitative data were analysed using descriptive statistics, correlation, and regression analysis, while qualitative data were analysed thematically. The findings revealed a statistically significant positive relationship between workforce alignment and perceived health service delivery ($r = .490$, $p < .001$). Regression results indicated that workforce alignment significantly predicted perceived health service delivery ($\beta = .490$, $p < .001$), accounting for 24% of the observed variation. Qualitative findings further showed that appropriate role allocation, competency-based deployment, effective communication, staff motivation, and continuous performance monitoring enhanced service efficiency, service quality, and continuity of care. The study concludes that workforce alignment is a significant predictor of perceived health service delivery in public health facilities. It recommends the adoption of competency-based deployment frameworks, regular workforce assessments, and strengthened performance management systems to improve health service delivery outcomes in Uganda.*

Keywords: *Workforce Alignment, Human Resource Planning, Health Service Delivery, Public Health Facilities, Central Uganda.*

How to cite this work (APA):

Kaddu, P., Zombeire, R & Rukanyangira, N. (2026). Workforce Alignment and Health Service Delivery in Selected Districts of Central Uganda. *Journal of Research Innovation and Implications in Education, 10*(2), 564 – 579. **https://doi.org/10.59765/bp2r**

1. Introduction

Globally, health systems increasingly recognize human resources as strategic assets that determine organizational effectiveness and health service delivery outcomes. The Resource-Based View posits that organizations achieve superior performance when valuable workforce capabilities are effectively deployed and utilized (Barney, 2001).

Workforce alignment therefore focuses on assigning employees responsibilities that correspond with their competencies, skills, and professional qualifications. Effective workforce alignment enables health facilities to optimize productivity, strengthen service responsiveness, and improve patient care experiences. Evidence from developed health systems indicates that competency-based staff deployment contributes significantly to organisational performance and healthcare quality (Boxall & Purcell, 2016). Furthermore, the World Health Organisation emphasises strategic workforce planning as a prerequisite for strengthening health systems and achieving universal health coverage (WHO, 2016).

Across Sub-Saharan Africa, healthcare systems continue to experience workforce shortages, skills mismatches, and an inequitable distribution of qualified personnel. These workforce challenges constrain healthcare organisations from delivering accessible, reliable, and quality services to growing populations (Okoroafor et al., 2022). Evidence from several African countries demonstrates that inadequate staffing structures and poor workforce deployment negatively affect healthcare performance. Health facilities operating under workforce constraints frequently experience increased workloads, reduced staff morale, and declining service quality. Similar challenges have been reported in many low-resource settings where strategic workforce planning remains inadequately integrated into health sector management systems. Consequently, governments and development partners increasingly advocate competency-based workforce deployment to improve healthcare efficiency and patient outcomes.

In Uganda, human resource planning remains central to improving healthcare delivery within public and private health facilities. The Ministry of Health recognises healthcare workers as critical resources that influence service accessibility, responsiveness, continuity, and effectiveness (Ministry of Health, 2021). However, persistent workforce shortages, uneven geographical distribution, and inadequate deployment practices continue affecting healthcare performance across districts. Studies indicate that healthcare professionals remain concentrated in urban areas while many rural facilities experience chronic staffing deficiencies (Ssendikadiwa et al., 2020). Such imbalances often result in increased workloads, prolonged waiting times, service interruptions, and reduced patient satisfaction. Effective workforce alignment, therefore, remains necessary for ensuring that available personnel are deployed according to organisational requirements and professional competencies (Kakungulu et al., 2018).

Despite government efforts to recruit additional healthcare personnel and strengthen workforce management systems, disparities in service delivery continue across health facilities. Recruitment initiatives and retention incentives have produced mixed outcomes in addressing workforce-related challenges within several districts (Rudasingwa et al., 2021). Misalignment between employee competencies and assigned responsibilities may undermine service efficiency, quality of care, and continuity. The Resource-Based View argues that organisations achieve better outcomes when workforce capabilities are strategically aligned with institutional objectives (Barney & Felin, 2013). Although previous studies examined broader human resource planning practices, limited empirical attention has focused specifically on workforce alignment within Ugandan public health facilities. This study, therefore, examined the influence of workforce alignment on perceived health service delivery in selected districts of Central Uganda.

1.1 Objective

The objective of this study was to examine the influence of workforce alignment on perceived health service delivery in selected districts.

1.2 Research Questions

What is the influence of workforce alignment on perceived health service delivery in selected districts?

1.3 Hypothesis

H_1: There is a positive relationship between workforce alignment and perceived health service delivery in selected districts.

2. Literature Review

2.1 Theoretical Review

The study was guided by the Resource-Based View (RBV) Theory, originally proposed by Edith Penrose (1959) and later advanced by Jay Barney (2001). The theory assumes that organisations achieve sustained performance when they effectively utilise valuable, rare, difficult-to-imitate, and strategically organised resources. Human resources are considered critical strategic assets because their knowledge, competencies, experience, and commitment cannot easily be replicated by competing organisations. The theory further posits that superior organisational outcomes emerge when employee capabilities are aligned with institutional objectives and operational requirements. In healthcare organisations, workforce alignment ensures that personnel are deployed according to competencies,

thereby enhancing efficiency, responsiveness, and service quality.

The major proponents of RBV include Penrose (1959), Barney (2001), and Barney and Felin (2013), who emphasised strategic utilisation of internal organisational resources. According to the theory, investment in recruitment, workforce forecasting, deployment, training, and retention strengthens employee capabilities and organisational effectiveness. The theory was relevant to this study because workforce alignment reflects the strategic placement of employees according to qualifications, skills, and professional competencies. Within Uganda's health sector, workforce shortages, uneven staff distribution, and competency mismatches demonstrate the need for effective alignment of human resources with service delivery requirements. Therefore, RBV provided an appropriate framework for explaining how workforce alignment influences perceived health service delivery through improved workforce utilisation, operational efficiency, and quality healthcare outcomes.

2.2 Influence of Workforce Alignment on Perceived Health Service Delivery

Public health facilities have a broad mandate that includes preventive, promotive, curative and rehabilitative services. Across different health systems globally, one consistent finding is that effective service delivery is closely tied to the strategic alignment of the health workforce with organisational goals (World Health Organization, 2016).

Workforce alignment refers to the extent to which employees' skills, competencies, and placements correspond with the organisation's strategic objectives, ensuring that personnel are deployed where they can contribute most effectively to service outcomes (Lepak & Snell, 2002). Scholars have debated the optimal approaches for achieving workforce alignment in health systems. Some argue that alignment should primarily focus on matching technical competencies to specific roles, emphasising skills-based deployment (Dieleman, Gerretsen, & van der Wilt, 2009). Others contend that alignment must also incorporate motivational, cultural, and attitudinal factors, recognising that employee engagement and commitment are important in determining service quality (Jackson, Schuler, & Jiang, 2014).
While skills matching ensures operational efficiency, neglecting the softer dimensions of alignment, such as motivation, teamwork, and fit with organisational culture, may limit improvements in perceived service delivery. Empirical studies further reveal mixed findings regarding the outcomes of workforce alignment. For example, research in Sub-Saharan Africa shows that appropriately aligned health workers improve patient satisfaction, reduce waiting times, and enhance continuity of care (Atinga, Abekah-Nkrumah, & Domfeh, 2011). Poorly aligned staff, characterised by skill mismatches or understaffing, lead to reduced quality and patient dissatisfaction (Mathauer & Imhoff, 2006). Most studies have focused on workforce alignment in urban or well-resourced facilities, leaving rural and decentralised contexts underexplored (Dieleman et al., 2009). The majority of research emphasises observable outcomes such as productivity and patient satisfaction, with limited attention to health workers' perceptions of alignment or their lived experiences within resource-constrained settings.

The concept of workforce alignment is rooted in strategic management literature that emphasises the fit between an organisation's internal resources and the external environment. Building on earlier work on strategic fit, organisations achieve superior performance when human resources are deliberately aligned with strategic priorities and environmental demands (Wright, Dunford, & Snell, 2011). This perspective holds that workforce alignment involves not only matching skills and roles to organisational goals, but also ensuring that employee behaviours, values, and motivations are congruent with broader strategic imperatives (Boxall & Purcell, 2011).

Although much of the alignment literature has examined the relationship between business strategy and other functional areas such as technology and operations, the core principle remains that strategic alignment across organisational domains enhances effectiveness (Sambamurthy & Zmud, 2000). Hoffman & Woehr (2006) conceptualised strategic alignment in human resource management as a process whereby HR practices are designed and implemented in ways that support key organisational strategies, resulting in improved performance outcomes. While these frameworks initially emerged in business settings, their underlying logic applies equally to aligning workforce competencies with health system goals.

When human resources are positioned and managed to reflect both internal strengths and external service needs, organizational performance and perceived service delivery outcomes are markedly improved. Building on alignment theory, Luftman et al. (1993) extended earlier strategic management models to underscore that organizational success depends on the harmonious interplay among multiple components, including business strategy, IT strategy, organizational infrastructure and IT infrastructure. Alignment is not only a structural or technical concern but also a cultural and behavioral one. Achieving strategic alignment requires calibration across the organization's culture, staff, structure, and governance mechanisms to ensure coherence between strategic intent and operational execution. Hoffman and Woehr (2006)

argue, that alignment is most effective when internal processes, workforce practices and organizational culture reinforce the strategic objectives, rather than responding reactively to external pressures.

When shifting the focus to workforce alignment, the discussion moves from organizational-level strategy to the operationalization of that strategy through human capital. Henderson &Venkatraman (1991, 1993), Miles & Snow (1984) emphasize that internal alignment particularly between employee capabilities and organizational needs is essential for sustaining competitive advantage and achieving performance targets. Workforce alignment is therefore not about placing employees in roles but about ensuring that their knowledge, skills, abilities, and efforts are strategically positioned to support organizational goals. Boswell (2000a) conceptualized this as the "line of sight," where employees understand how their specific roles and tasks contribute to broader organizational objectives. Further, Ayers, (2013) argue that employee alignment encompasses both cognitive and emotional dimensions. Cognitive alignment refers to employees' understanding of their roles in relation to organisational goals, while emotional alignment reflects the degree to which employees internalise and are motivated by these goals. Without both elements, alignment may be superficial and fail to translate into improved performance or engagement. Alagaraja and Shuck (2015) contend that managers play a critical role in bridging this gap by providing clarity, coaching, and feedback that link organisational objectives to individual contributions. This managerial responsibility highlights a notable debate in the literature: some scholars suggest that alignment is primarily a structural process achieved through HR systems and formalised procedures, whereas others, including Boswell (2000a) and Alagaraja and Shuck (2015), argue that alignment is also a relational and motivational process requiring active engagement from both managers and employees. While general alignment frameworks have been applied in corporate and IT environments, there is limited understanding of how employee alignment functions in dynamic, high-stakes settings where workforce roles directly impact service quality, such as hospitals or public health systems. In healthcare, misalignment can manifest in staffing inefficiencies, reduced quality of care, or employee disengagement, yet few studies have systematically examined the mechanisms by which alignment affects both workforce performance and patient outcomes.

Examining employee alignment provides an opportunity to address the literature gap by operationalising alignment at the individual level, considering both cognitive understanding of goals and emotional engagement with organizational objectives. This approach allows for the evaluation of how alignment influences not only employee behavior but also organisational performance indicators, such as service delivery effectiveness and patient satisfaction. Workforce alignment encompasses structural, cognitive and emotional elements, and its effectiveness depends on managerial practices, HR systems, and employee understanding.

While theoretical foundations are strong, empirical evidence in service-oriented and healthcare organizations remains limited.

The healthcare sector provides a compelling context to examine workforce alignment due to its rapidly expanding demand driven by aging populations and the increasing prevalence of chronic illnesses (Capgemini Research Institute, 2020). The healthcare labor market is characterized by employment arrangements, encompassing full-time staff, part-time employees, contractors, gig workers and remote professionals (Altman et al., 2021). This growing heterogeneity underscores the complexity of workforce alignment in practice: healthcare organizations must ensure that all categories of workers, regardless of contractual arrangement, are strategically positioned to contribute effectively to organizational goals (Alfes et al., 2022). Without such alignment, service delivery can be fragmented, and patient care may suffer, highlighting the sector-specific relevance of workforce alignment strategies.

Recent evidence continues to demonstrate that workforce alignment remains a critical determinant of healthcare performance and service delivery outcomes. The World Health Organization reported that shortages, maldistribution, and skills mismatches among health workers continue to constrain healthcare accessibility and quality, particularly in low- and middle-income countries (WHO, 2025). Similarly, Uganda's Human Resources for Health Strategic Plan emphasizes aligning workforce competencies, staffing levels, and deployment decisions with population health needs to improve service quality and efficiency (Ministry of Health Uganda, 2021). Recent studies further indicate that strategic human resource planning and workforce optimization enhance service responsiveness, workforce productivity, and organizational effectiveness within healthcare systems (Bamakhrama et al., 2024; Alawode et al., 2025). These findings suggest that workforce alignment remains an essential mechanism through which healthcare organizations can strengthen service delivery performance in resource-constrained environments.

Empirical literature demonstrates that workforce alignment influences organizational performance by enhancing communication, collaboration and employee engagement (Abanumay & Mezghani, 2022). Employees who clearly understand their roles relative to organizational objectives are more likely to exhibit discretionary effort, take

initiative, and engage in behaviors that support organizational success. However, despite this consensus, a substantial gap exists in healthcare-specific studies (Chtourou Ben Amar & Ben Romdhane, 2020). While general studies address workforce fluidity and modern work structures (Altman et al., 2021), few investigate how alignment strategies tackle healthcare-specific challenges, such as chronic staffing shortages, skill mismatches or the uneven distribution of personnel across departments or geographic regions (Ahmad & Adnan, 2017).

This represents a gap as the operationalization of workforce alignment in healthcare is far more complex and directly impacts service quality, patient satisfaction, and overall system efficiency.
The theory of alignment posits that achieving coherence among an organization's strategy, structure, processes, culture and workforce significantly enhances the likelihood of attaining organizational goals (Alagaraja & Shuck, 2015). Within this framework, employee alignment is recognized as a key driver of engagement, motivation, and performance outcomes (Boswell et al., 2006). However, a notable empirical gap exists: research indicates that a majority of employees do not fully comprehend how their work contributes to organizational objectives (Bakker, 2017).

For instance, the Corporate Executive Board Corporate Leadership Council (2015) found that nearly two-thirds of employees lack clarity regarding their roles in achieving strategic goals. While alignment is acknowledged as critical, there is insufficient operational guidance on how organizations can ensure employees internalize their roles effectively, particularly in high-stakes, service-intensive sectors like healthcare.

Strategic Human Resource Management (SHRM) further reinforces the criticality of workforce alignment, highlighting the role of High-Performance Work Systems (HPWS) in fostering alignment and enhancing organizational performance (Applebaum et al., 2000; Wright et al., 2011). HPWS aim to integrate recruitment, training, performance management, and incentive systems to develop employee skills and behaviors that are congruent with strategic objectives. However, empirical evidence remains fragmented regarding whether HPWS reliably foster workforce alignment and whether alignment serves as a mediating mechanism between HPWS and organizational outcomes. While theory supports link between HPWS and performance, sector-specific studies in healthcare are required to validate relationships and guide implementation.

A further consideration is the temporal nature of workforce alignment. The Resource-Based View (RBV) suggests that even resources that are valuable, rare and inimitable under one set of conditions may lose strategic relevance as market or operational circumstances evolve (Priem & Butler, 2001). In healthcare, where patient needs, technology, and regulatory requirements are continually changing, workforce alignment achieved at one point in time may quickly become obsolete. HR scalability both internal and external is a sustainable approach enabling organizations to rapidly adjust workforce configurations in response to evolving demands (Cappelli & Neumark, 2004; Dyer & Ericksen, 2005). Internal scalability, such as redeployment and retraining, allows organisations to optimise existing talent, while external scalability including recruitment of specialists or outsourcing, provides flexibility to meet emergent needs.

Finally, the literature highlights that the primary source of sustainable competitive advantage lies in the workforce itself, rather than in HR systems alone (Wright, Dunford, & Snell, 2001). The rarity, value and inimitability of a skilled and motivated workforce underpin long-term organisational success. In the healthcare sector of Uganda, this principle is salient: the alignment of employee competencies, motivation and efforts with strategic health objectives is not only theoretically significant but essential. Aligning workforce capabilities with organisational goals ensures that health services are delivered efficiently, quality standards are maintained, and patient outcomes are optimised. Despite this clarity, research empirically validating the mechanisms by which employee alignment influences perceived health service delivery in resource-constrained healthcare systems remains scarce. Addressing this gap will provide both scholarly insights and practical guidance for policymakers and healthcare managers seeking to optimise human resource contributions to healthcare delivery.

3. Methodology

3.1 Design

The study adopted convergent mixed-methods cross-sectional research design conducted between 20 June and 20 September 2025. The study involved collecting and analysing data at a single point in time rather than tracking changes over an extended period. This design was appropriate because it enabled the researcher to capture the current state of human resource planning practices and assess how they relate to service delivery outcomes within a defined timeframe.

3.2 Population and Sample

The target population included 260 health personnel, including medical officers, clinical officers, nurses,

midwives, laboratory technicians, and administrative staff from the three districts, as identified in the Local Government Second Development District Plan (2020/21-2024/25) and Uganda Bureau of Statistics (UBOS, 2014), Luwero District had a population of approximately 458,158, Nakaseke District was home to about 191,154 residents, and Nakasongola District had a population of around 181,272. A sample size also refers to the number of items being selected from the universe to constitute a sample, Kothari (2014). From a target population of 260 health personnel, a sample size of 158 was determined using Slovin's formula. However, 150 respondents completed the questionnaire, representing the final quantitative sample used in the analysis

A total of 33 qualitative respondents were selected: Registered Pharmacists (2), HR Officers (4), Health Centre Officials (3), Key Staff Members (3), Patients (11) and Community Members (10). This sample size falls within the recommended range and is considered adequate for achieving thematic saturation. This approach ensures that the study captures rich perspectives on human resource planning practices and their influence on perceived health service delivery in the selected districts.

3.3 Sampling Techniques

Stratified random sampling was used to select health workers, who were first grouped by professional category. Stratified random sampling was then applied to select nurses, midwives, clinical officers, laboratory personnel, pharmacists, and administrative staff proportionately from each stratum.

Census sampling was used for medical officers and dentists because their numbers were small. Therefore, all medical officers and dentists in the selected facilities were included in the study.

Purposive sampling was used to select HR officers, health facility officials, patients, and community members who had relevant experience with workforce alignment and health service delivery.

3.4 Eligibility Criteria

3.4.1 Inclusion Criteria

The study included health workers employed in public health facilities within the selected districts of Central Uganda. Eligible participants comprised medical officers, clinical officers, nurses, midwives, laboratory personnel, pharmacists, health facility administrators, and human resource officers who had worked in their respective facilities for at least six months. Community members and patients who had utilised services from the selected health facilities and possessed adequate knowledge of service delivery experiences were also included in the qualitative component. Participants were required to provide informed consent before participating in the study.

3.4.2 Exclusion Criteria

Health workers who had served in the selected facilities for less than six months were excluded because they might not have acquired sufficient experience regarding workforce alignment practices and service delivery processes. Health personnel who were on leave, absent during the data collection period, or unwilling to participate were also excluded. Similarly, patients and community members who lacked adequate knowledge of health service delivery experiences within the selected facilities were not included in the study.

3.5 Data Collection Methods, Instruments and Measurement of Variables

The study employed both quantitative and qualitative data collection methods. Quantitative data were collected using a structured questionnaire administered to health workers in selected public health facilities. The questionnaire items were adapted from established human resource management and health service delivery literature, particularly the works of Armstrong (2014), Mathis and Jackson (2017), and the World Health Organization (2016), and were modified to suit the Ugandan public health context. Qualitative data were collected through key informant interviews, focus group discussions, and document review using interview guides, discussion guides, and a document review checklist.

The independent variable, workforce alignment**,** was measured using indicators including competency-based staff deployment, role clarity, workload balancing, performance monitoring, communication effectiveness, and alignment of employee competencies with organizational requirements. The dependent variable, perceived health service delivery**,** was measured using indicators relating to responsiveness of health workers, availability of health workers, quality of care, accessibility of services, and patient satisfaction. Respondents rated all questionnaire items on a five-point Likert scale ranging from 1 = Strongly Disagree **to** 5 = Strongly Agree**.** Composite mean scores were computed for each construct, with higher scores indicating higher levels of workforce alignment and perceived health service delivery. Qualitative data obtained through interviews, focus group discussions, and document review were used to complement and explain the quantitative findings.

3.6 Validity and Reliability

The validity of the research instruments was established through expert judgment. The questionnaire, interview guide, focus group discussion guide, and document review checklist were reviewed by experts in human resource management, public administration, and health services research to assess their relevance, clarity, and adequacy in measuring workforce alignment and perceived health service delivery. Their recommendations were incorporated into the instruments before data collection. The Content Validity Index (CVI) results indicated satisfactory validity levels for all study variables, with workforce alignment attaining a CVI of 0.753 and perceived health service delivery attaining a CVI of 0.842, both exceeding the minimum acceptable threshold of 0.70. These findings confirmed that the instruments were valid for measuring the intended constructs.

Reliability was assessed using Cronbach's Alpha coefficient to determine the internal consistency of the questionnaire items. A pilot study was conducted among respondents with characteristics similar to those of the study population but outside the selected districts. The results showed that workforce alignment attained a Cronbach's Alpha coefficient of 0.721, while perceived health service delivery attained a coefficient of 0.811**.** Since all reliability coefficients exceeded the recommended minimum threshold of 0.70, the instruments were considered reliable for data collection and subsequent analysis.

3.7 Data Analysis Plan

Quantitative data were coded, entered, cleaned and analysed using SPSS version 29. Descriptive statistics comprising frequencies, percentages, means and standard deviations were computed. Pearson Product-Moment Correlation and simple linear regression analyses were performed to establish the relationship and influence of workforce alignment on perceived health service delivery. Statistical significance was tested at $p \leq .05$.

Qualitative data obtained through key informant interviews, focus group discussions, and document review were transcribed verbatim and analysed thematically.

3.8 Ethical Considerations

Ethical approval was obtained from Clarke International University Research Ethics Committee (2025-1657) and Uganda national Council of Science and Technology (SS4063ES) before commencement of the study. Administrative permission was obtained from the District Health Officers of Nakasongola, Luwero and Nakaseke districts. Participation was voluntary, and informed consent was obtained from all respondents before data collection. Confidentiality and anonymity were maintained by excluding personal identifiers from questionnaires and interview transcripts. Data were securely stored and accessed only by the research team.

4. Results and Discussion

4.1 Demographic characteristics of respondents

Table 1: Demographic characteristics of respondents

Characteristic	Category	n (%)
Gender	Male	79 (52.7)
	Female	71 (47.3)
Age Group (Years)	≤20	1 (0.7)
	20–25	31 (20.7)
	26–30	45 (30.0)
	31–35	17 (11.3)
	36–40	33 (22.0)
	≥40	23 (15.3)
Highest Education Level Attained	Certificate	13 (8.7)
	Diploma	47 (31.3)
	Degree	72 (48.0)
	Master's Degree	18 (12.0)
Marital Status	Single	41 (27.3)
	Married	85 (56.7)
	Divorced	11 (7.3)
	Widowed	7 (4.7)
	Separated	6 (4.0)
Period of Stay in Selected Districts	1–3 years	67 (44.7)
	4–7 years	46 (30.7)
	8 years and above	37 (24.7)

The majority were male (52.7%, n = 79), while females constituted 47.3% (n = 71). Most respondents were aged 26–30 years (30.0%, n = 45), followed by those aged 36–40 years (22.0%, n = 33). Regarding educational attainment, nearly half possessed bachelor's degrees (48.0%, n = 72), while 31.3% (n = 47) held diplomas and 12.0% (n = 18) had master's degrees. More than half of the respondents were married (56.7%, n = 85), and the majority had worked in the selected districts for one to three years (44.7%, n = 67). These characteristics suggest that respondents possessed adequate educational qualifications and professional experience to provide reliable information regarding workforce alignment and health service delivery.

4.2 Descriptive Results for Study Variables

Table 2: Descriptive Statistics of Study Variables (N = 150)

Variable	N	Mean	SD	Interpretation
Workforce Alignment	150	4.107	1.069	High
Perceived Health Service Delivery	150	4.777	0.419	Very High

The results in Table 2 indicate that workforce alignment was rated highly among respondents (M = 4.107, SD = 1.069), suggesting that health facilities generally implemented staff deployment, competency matching, retention initiatives, performance management, and workforce planning practices. Perceived health service delivery was rated very highly (M = 4.777, SD = 0.419), implying that respondents perceived healthcare services to be responsive, reliable, accessible, and of satisfactory quality. The relatively low standard deviation for perceived health service delivery indicates consistency in respondents' perceptions across the selected districts.

4.3 Relationship between Workforce Alignment and Perceived Health Service Delivery

Table 3: Correlation between Workforce Alignment and Perceived Health Service Delivery

Variable	1	2
Workforce Alignment	1	
Perceived Health Service Delivery	.490**	1

$p < .01$

Pearson correlation analysis revealed a moderate positive relationship between workforce alignment and perceived health service delivery ($r = .490$, $p < .001$). Regression analysis was subsequently conducted to determine the predictive effect of workforce alignment on perceived health service delivery.

4.4 Influence of Workforce Alignment on Perceived Health Service Delivery

Table 4: Regression Analysis of Workforce Alignment and Perceived Health Service Delivery

Predictor	B	β	t	p
Workforce Alignment	0.390	0.490	6.840	.000
Model Statistics	**Value**			
R	0.490			
R^2	0.240			
Adjusted R^2	0.235			
F	46.781			
p-value	.000			

The regression results in Table 4 indicate that workforce alignment had a positive and statistically significant influence on perceived health service delivery ($\beta = .490$, $t = 6.840$, $p < .001$). The findings suggest that improvements in workforce alignment were associated with corresponding improvements in perceived health service delivery within the selected districts. The model explained 24.0% of the variation in perceived health service delivery ($R^2 = .240$; Adjusted $R^2 = .235$), implying that workforce alignment is an important predictor of service delivery outcomes. The ANOVA results further confirmed that the regression model was statistically significant ($F = 46.781$, $p < .001$). The unstandardized coefficient ($B = .390$) indicates that a one-unit increase in workforce alignment was associated with a .390-unit increase in perceived health service delivery.

4.5 Qualitative Findings on Workforce Alignment and Perceived Health Service Delivery

Table 5: Qualitative Findings on **Workforce Alignment and Perceived Health Service Delivery**

Theme	Sub-theme	Quote	Source
Workforce Alignment and Service Efficiency	Role Allocation and Task Clarity	"Assigning the right staff to positions that match their training and expertise ensures that tasks are performed accurately and on schedule. When everyone knows their responsibilities, confusion is minimized, accountability is strengthened, and patients receive timely and reliable care."	Human Resource Officer, Nakaseke General Hospital (2025)
	Streamlined Patient Navigation	"We ensure that every patient is directed immediately to the department they need, be it the laboratory, HIV clinic, or pharmacy. This prevents patients from wandering aimlessly, reduces congestion, and ensures we manage high patient volumes effectively."	Senior Nurse, Nakasongola Health Centre IV (2025)
Workforce Alignment and Service Quality	Competency-Based Task Allocation	"We deploy nurses and clinicians based on their training and specialty areas. For instance, nurses trained in maternal emergencies are stationed in the maternity ward, which has markedly reduced complications and improved patient outcomes."	Senior Clinical Officer, Luwero General Hospital (2025)
	Communication and Patient Education	"Part of our staff's responsibilities is to explain medications and treatment plans thoroughly. We ensure clients understand their prescriptions, which reduces misuse of drugs and promotes adherence."	Clinical Officer, Nakaseke General Hospital (2025)
Workforce Retention and Continuity of Service	Retention Strategies and Staff Motivation	"Retention strategies like recognizing high-performing staff, offering professional development, and providing rural-specific incentives help maintain a motivated and stable workforce. This is crucial for consistent service delivery and maintaining trust among patients."	Human Resource Officer, Luwero General Hospital (2025)
	Follow-Up and Continuity of Care	"We conduct community outreach for postnatal mothers and chronic patients. Having trained staff dedicated to these follow-ups ensures early detection of complications and sustained patient care."	Senior Nurse, Nakaseke General Hospital (2025)
Challenges to Effective Workforce Alignment	Staffing Shortages and High Turnover	"We frequently face staff shortages and high turnover, especially among young professionals. This disrupts workflow, increases workload for remaining staff, and sometimes compromises the quality of care."	Senior Officer, Nakasongola Health Centre IV (2025)
	Resource Constraints and Infrastructure Limitations	"Even when staff are well-aligned, lack of equipment, limited accommodation, and insufficient training resources often delay service delivery. Workforce alignment must be supported by infrastructure and logistical resources to achieve full effectiveness."	Senior Officer, Luwero General Hospital (2025)
Strategic Human Resource Planning and Service Delivery	Capacity Building and Training	"We have trained nurses in emergency maternal care and outpatient services. When staff are equipped with the right skills, delays are reduced, and the quality of care improves significantly."	Key Informant, Nakasongola Health Centre IV (2025)
	Performance Monitoring and Accountability	"Regular performance appraisals, mentorship, and feedback create accountability. Staff know what is expected and this directly translates into improved service quality and efficiency."	Human Resource Officer, Nakaseke General Hospital (2025)

The qualitative findings revealed that workforce alignment enhances health service delivery by promoting role clarity, competency-based task allocation, streamlined patient navigation, effective communication, and continuity of care through staff retention and follow-up mechanisms. Respondents further indicated that capacity building,

performance monitoring, mentorship, and accountability systems strengthen workforce effectiveness and contribute to improved service quality, efficiency, and patient satisfaction. However, staffing shortages, high staff turnover, inadequate infrastructure, limited equipment, and insufficient training resources were identified as major barriers that constrain the full benefits of workforce alignment in public health facilities.

4.6 Discussion

The study established that workforce alignment significantly influences perceived health service delivery in selected districts of Central Uganda. Pearson correlation analysis revealed a moderate positive relationship between workforce alignment and perceived health service delivery ($r = .490$, $p < .001$), indicating that improvements in workforce alignment are associated with better service delivery outcomes. These findings suggest that health facilities that effectively align employee competencies, responsibilities, and deployment practices with organizational needs are more likely to achieve improvements in service quality, responsiveness, and continuity of care. This indicates that improved alignment of staff roles with institutional goals enhances service delivery outcomes. This is in line with Schuler & Jackson (1987), who posited that organizational effectiveness is dictated not merely by the presence of staff, but by their behavioral alignment with strategic objectives. However, there is an ongoing debate regarding whether alignment in the public health sector can mirror the efficiency seen in the private sector. While corporate models assume agile restructuring, health facilities in central Uganda operate under rigid bureaucratic frameworks. Nevertheless, the rejection of the null hypothesis in this study firmly validates the argument that even within rigid public health structures, strategic alignment remains a significant catalyst for service delivery quality.

Willis-Shattuck et al. (2008) contended that in resource-constrained contexts like sub-Saharan Africa, an perfectly aligned and highly skilled doctor is rendered ineffective if there is a severe lack of medical supplies or infrastructure. Thus, while the 24% variance proves the critical importance of alignment, it concurrently highlights that the remaining 76% of service variation relies heavily on systemic resources and physical health infrastructures, suggesting a multi-dimensional approach to health management. These findings support the Resource-Based View Theory, which argues that organizational performance depends on the effective deployment and utilization of valuable human resources. Workforce alignment enables health facilities to maximize employee competencies and professional expertise, thereby improving operational efficiency and service delivery outcomes. The findings therefore suggest that strategic alignment of human resources remains an important mechanism through which public health facilities can enhance healthcare performance.

Recent studies demonstrate that organizations that align employee competencies with organizational needs achieve greater service responsiveness, efficiency, and quality outcomes than organizations characterized by staffing mismatches and inadequate workforce planning (Bamakhrama et al., 2024; Alawode et al., 2025). Likewise, recent public-sector evidence shows that strategic human resource planning contributes significantly to improved service delivery through better workforce utilization and organizational coordination (Roba et al., 2024). The consistency between the present findings and contemporary literature suggests that workforce alignment continues to be a relevant predictor of health service delivery despite evolving healthcare challenges and workforce demands.

Regression analysis further confirmed the importance of workforce alignment in explaining variations in perceived health service delivery. The findings revealed that workforce alignment significantly predicted perceived health service delivery ($\beta = .490$, $p < .001$) and accounted for 24.0% of the observed variation in service delivery outcomes ($R^2 = .240$). This suggests that health facilities that effectively align employee competencies, responsibilities, and deployment practices with organizational needs are more likely to achieve improvements in service quality, responsiveness, and continuity of care. These findings support the Resource-Based View Theory, which argues that organizations achieve superior performance through the effective utilization of valuable and strategically deployed human resources. Workforce alignment enables health facilities to maximize the contribution of employee competencies and professional expertise toward organizational objectives. Consequently, health facilities that deliberately align staff capabilities with service demands are more likely to enhance operational efficiency, improve patient experiences, and achieve better health service delivery outcomes.

The results are consistent with Kristof-Brown et al. (2005), who argued that when an employee's skills match the precise requirements of their role (high alignment), they exhibit greater role clarity, reduced clinical errors, and higher productivity. However, this statistical finding intersects with a major debate in developing health systems regarding "Task-Shifting." McPake and Mensah (2008) argued that due to severe specialist shortages in African health units, rigid role alignment is often a luxury; instead, nurses are frequently forced to take on doctors' diagnostic roles. Interestingly, the positive beta coefficient (B= 0.390,

β=0.490) in this study suggests that regardless of task-shifting, when administrators actively and logically align available competencies to current demands even if it involves formalizing task-shifting protocols, service delivery metrics improve correspondingly. The qualitative findings further reinforced the quantitative results. Respondents consistently reported that competency-based task allocation, role clarity, effective communication, and streamlined patient navigation enhanced service efficiency and quality. Participants also highlighted that staff retention initiatives, mentorship, capacity-building programmes, and performance monitoring strengthened continuity of care and improved patient satisfaction. However, staffing shortages, workforce turnover, inadequate infrastructure, and limited training resources were identified as barriers limiting the full realization of workforce alignment benefits in public health facilities. The findings are particularly relevant within the Ugandan health sector, where disparities in staffing levels and workforce distribution continue to affect access to quality healthcare services. Effective workforce alignment may therefore provide a practical strategy for improving service delivery outcomes even under conditions of limited financial and human resources.

Moreover, finding agrees with the perspective of Boswell (2006), who contended that alignment is fundamentally a psychological mechanism. He argued that performance management systems only succeed when there is a clear line of sight meaning health workers understand exactly how their routine diagnostic or administrative tasks contribute to the district's overall health metrics, such as reducing maternal mortality. When this line of sight is clear, workers are internally motivated. However, a counter-argument raised by labor economists is whether strategic alignment can overcome deep-seated demotivation caused by poor remuneration.

The highly significant ANOVA results (F= 46.781, p = 0.000) in this study provide compelling evidence that while financial incentives are vital, role clarity and structural alignment independently prevent wasted effort and significantly elevate the perceived quality of care provided to patients. The qualitative findings further reinforced the quantitative results. Respondents consistently reported that competency-based task allocation, role clarity, streamlined patient navigation, and effective communication improved service efficiency and quality. Participants also highlighted that staff retention initiatives, capacity-building programmes, mentorship, and performance monitoring strengthened continuity of care and enhanced patient satisfaction. However, staffing shortages, high turnover, inadequate infrastructure, and limited training resources were identified as significant barriers that constrain the full realization of workforce alignment benefits in public health facilities. Overall, the findings suggest that workforce alignment constitutes a practical and cost-effective strategy for improving health service delivery in resource-constrained public health facilities, particularly when supported by adequate staffing, continuous professional development, effective performance management, and sufficient operational resources. The findings of this study contribute to the debate between vertical and horizontal alignment within healthcare systems. Much of traditional HR literature focuses on vertical alignment ensuring a nurse's goals match the Ministry of Health's goals. However, Kabene et al. (2006) argued that the delivery of high-quality healthcare requires horizontal alignment, which is the seamless integration and teamwork across different professional disciplines (e.g., laboratory technicians aligning their workflow with outpatient physicians).

Recent evidence continues to demonstrate that workforce alignment remains a critical determinant of healthcare performance and service delivery outcomes. The World Health Organization reported that shortages, maldistribution, and skills mismatches among health workers continue to constrain healthcare accessibility and quality, particularly in low- and middle-income countries (WHO, 2025). Similarly, Uganda's Human Resources for Health Strategic Plan emphasizes aligning workforce competencies, staffing levels, and deployment decisions with population health needs to improve service quality and efficiency (Ministry of Health Uganda, 2021). Recent studies further indicate that strategic human resource planning and workforce optimization enhance service responsiveness, workforce productivity, and organizational effectiveness within healthcare systems (Bamakhrama et al., 2024; Alawode et al., 2025). These findings suggest that workforce alignment remains an essential mechanism through which healthcare organizations can strengthen service delivery performance in resource-constrained environments.

The current findings concur with this systemic view, as the comprehensive improvement in perceived service delivery suggests that patients are experiencing fewer bottlenecks and smoother transitions between departments. The findings suggest that workforce alignment constitutes a practical and cost-effective strategy for strengthening health service delivery in public health facilities. Investments in competency-based deployment, staff retention, performance management, and continuous professional development are therefore likely to yield substantial improvements in healthcare quality, responsiveness, and patient satisfaction.

5. Conclusions and Recommendations

5.1 Conclusion

The study concluded that workforce alignment significantly and positively influences perceived health service delivery in selected districts of Central Uganda. Effective alignment of employee competencies, responsibilities, and deployment practices was associated with improvements in service quality, responsiveness, and continuity of care. Workforce alignment explained 24% of the variation in perceived health service delivery, demonstrating its importance as a strategic human resource management practice. The findings suggest that competency-based deployment and effective utilisation of health workers can contribute substantially to improved healthcare performance in public health facilities.

5.2 Recommendations

1. Health facility managers should institutionalise competency-based workforce deployment systems to ensure that health workers are assigned responsibilities consistent with their qualifications, skills, and professional experience. Appropriate role allocation would enhance task clarity, reduce operational bottlenecks, strengthen accountability, and improve the quality and timeliness of healthcare services.
2. The Ministry of Health and District Local Governments should conduct regular workforce assessments and staffing audits to identify skill gaps, staffing imbalances, and areas of role mismatch within public health facilities. Such assessments would facilitate evidence-based workforce planning and promote equitable deployment of health workers across service units and geographical locations.
3. Health facility administrators should strengthen performance management systems through routine performance appraisals, mentorship programmes, supportive supervision, and constructive feedback mechanisms. Effective performance monitoring would improve employee commitment, enhance adherence to professional standards, and contribute to improved health service delivery outcomes.
4. The Ministry of Health and district authorities should implement staff retention and motivation strategies, including continuous professional development, career advancement opportunities, recognition of outstanding performance, and incentives for health workers serving in hard-to-reach areas. Improved retention would preserve institutional knowledge, promote continuity of care, and minimize disruptions associated with workforce turnover.
5. Government and development partners should complement workforce alignment initiatives with adequate investments in health infrastructure, medical equipment, essential medicines, and training resources. Workforce alignment is most effective when supported by sufficient physical and logistical resources that enable health workers to perform their duties efficiently and effectively.
6. Future studies should examine the combined influence of workforce alignment and other human resource planning practices, including workforce forecasting, succession planning, and staff development, on health service delivery outcomes. Longitudinal and comparative studies are recommended to assess how workforce alignment influences service delivery performance over time and across different healthcare settings.

References

Alagaraja, M., & Shuck, B. (2015). Examining employee engagement from a workforce alignment perspective. *Human Resource Development Review, 14*(1), 17–37.

Alawode, G. B., Ajibola, A.-R. A., Sanusi, M. S., Adewoyin, A. B., & Alawode, K. A. (2025). *Optimizing the health workforce for universal health coverage: A framework for analysis and action*. *Human Resources for Health, 23*, Article 27

Alfes, K., Shantz, A., Truss, C., & Soane, E. (2022). Employee engagement in the modern healthcare workforce: A multi-level review. *Human Resource Management Review, 32*(1), 100805.

Anabila, P. (2019). Service quality and customer satisfaction in the healthcare sector in Ghana. *Journal of African Business, 20*(3), 1–17.

Applebaum, E., Bailey, T., Berg, P., & Kalleberg, A. L. (2000). *Manufacturing advantage: Why high-performance work systems pay off*. Cornell University Press.

Armstrong, M. (2006). *A handbook of human resource management practice* (10th ed.). Kogan Page.

Atinga, R. A., Abekah-Nkrumah, G., & Domfeh, K. A. (2011). Assessing the impact of health worker

alignment on service delivery in sub-Saharan Africa. *Health Policy and Planning, 26*(4), 314–323.

Babakus, E., & Mangold, W. G. (1992). Adapting the SERVQUAL scale to hospital services: An empirical investigation. *Health Services Research, 26*(6), 767–786.

Bakker, A. B. (2017). Strategic employee engagement and workforce alignment. *Journal of Organizational Effectiveness, 4*(3), 173–186.

Bamakhrama, A. A. S., & Alqarni, A. M. S. (2024). The impact of strategic human resource management on healthcare service delivery efficiency. Saudi J Nurs Health Care, 7(12), 390-394

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management, 27*(6), 643–650.

Barney, J. B., & Felin, T. (2013). What are microfoundations? *Academy of Management Perspectives, 27*(2), 138–155.

Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis with special reference to education* (3rd ed.). University of Chicago Press.

Boswell, W. R. (2000a). Aligning employees with the organization's strategic objectives: Out of "line of sight" but still in mind. *Human Resource Management Review, 10*(3), 201–218.

Boswell, W. R., Boudreau, J. W., & Tichy, J. (2006). The relationship between employee job change and organizational alignment. *Human Resource Management, 45*(3), 395–412.

Boxall, P., & Purcell, J. (2011). *Strategy and human resource management* (3rd ed.). Palgrave Macmillan.

Boxall, P., & Purcell, J. (2014). *Strategy and human resource management* (3rd ed.). Palgrave Macmillan.

Boxall, P., & Purcell, J. (2016). *Strategy and human resource management* (4th ed.). Palgrave Macmillan.

Capgemini Research Institute. (2020). *The future of work in healthcare: Workforce strategies for resilience*. Capgemini Research Institute.

Chankova, S., Muchiri, S., & Kombe, G. (2013). *Health workforce planning and management in developing countries*. Health Systems 20/20 Project, Abt Associates Inc.

Chtourou Ben Amar, M., & Ben Romdhane, R. (2020). Workforce alignment and performance outcomes in healthcare: Challenges in low-resource settings. *International Journal of Healthcare Management, 13*(2), 98–107.

Dagger, T. S., Sweeney, J. C., & Johnson, L. W. (2017). A hierarchical model of health service quality: Scale development and investigation of an integrated model. *Journal of Service Research, 10*(2), 123–142.

Delery, J. E. (1998). Issues of fit in strategic human resource management: Implications for research. *Human Resource Management Review, 8*(3), 289–309.

Dieleman, M., Gerretsen, B., & van der Wilt, G. J. (2009). Human resource management in health: A global perspective. *Health Policy, 93*(2–3), 125–135.

Henderson, J. C., & Venkatraman, N. (1991). Strategic alignment: Leveraging information technology for transforming organizations. *IBM Systems Journal, 32*(1), 4–16.

Henderson, J. C., & Venkatraman, N. (1993). Strategic alignment: A model for organizational transformation via information technology. *Information Systems Research, 3*(2), 149–179.

Hoffman, B. J., & Woehr, D. J. (2006). A quantitative review of the relationship between person–organization fit and behavioral outcomes. *Journal of Vocational Behavior, 68*(3), 389–399.

Jackson, S., Schuler, R., & Jiang, K. (2014). An aspirational framework for strategic human resource management. *Academy of Management Annals, 8*(1), 1–56.

Kakungulu, E., Ssengooba, F., & Kiwanuka, S. N. (2018). Health workforce distribution and challenges to effective health service delivery in Uganda. *International Journal of Health Planning and Management, 33*(2), e1–e12.

Kihungo, R., Kananura, R. M., Ekirapa-Kiracho, E., & Kiwanuka, S. N. (2019). Health workforce challenges and the quality of health service delivery in Uganda. *BMC Health Services Research, 19*(Suppl. 1), 1–8.

Kothari, C. R. (2014). *Research methodology: Methods and techniques* (3rd ed.). New Age International Publishers.

Lepak, D. P., & Snell, S. A. (2002). Examining the human resource architecture: The relationships among human capital, employment, and human resource configurations. *Journal of Management, 28*(4), 517–543.

Luftman, J., Kempaiah, R., & Nash, E. (1993). Key issues for IT executives 1993: Strategic alignment and success. *MIS Quarterly Executive, 2*(1), 7–23.

Miles, R. E., & Snow, C. C. (1984). Designing strategic human resource systems. *Organizational Dynamics, 13*(1), 36–52.

Ministry of Health. (2017). *Uganda health sector development plan 2015/16–2019/20*. Ministry of Health, Republic of Uganda.

Ministry of Health, Uganda. (2021). *Annual health sector performance report 2020/2021*. Ministry of Health.

Ministry of Health Uganda (2021). Human Resources for Health Strategic Plan 2020–2030.

Mosadeghrad, A. M. (2014). Factors influencing healthcare service quality. *International Journal of Health Policy and Management, 3*(2), 77–89.

Okoroafor, S. C., Ahmat, A., Nyoni, J., & Osei Afriyie, D. (2022). Strengthening health workforce planning and management in Africa: Addressing persistent challenges in health service delivery. *Human Resources for Health, 20*(1), 1–10.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multi-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), 12–40.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (2018). *Delivering quality service: Balancing customer perceptions and expectations*. Free Press.

Penrose, E. T. (1959). *The theory of the growth of the firm*. Oxford University Press.

Priem, R. L., & Butler, J. E. (2001). Is the resource-based "view" a useful perspective for strategic management research? *Academy of Management Review, 26*(1), 22–40.

Roba, B. H., Wachira, P., & Mwenda, L. (2024). *Strategic human resource planning and service delivery in county governments in Kenya*. *International Journal of Advanced Research, 7*(1).

Rudasingwa, M., Mbonye, A. K., Ssengooba, F., & Kiwanuka, S. N. (2021). Geographic inequalities in health service delivery and workforce distribution in Uganda. *BMC Health Services Research, 21*(1), 1–12.

Schuler, R. S., & Jackson, S. E. (1987). Linking competitive strategies with human resource management practices. *Academy of Management Executive, 1*(3), 207–219.

Ssendikadiwa, V. B., Kiwanuka, S. N., & Ssengooba, F. (2020). Distribution of health workers and implications for health service delivery in Uganda. *Human Resources for Health, 18*(1), 1–10.

World Bank. (2020). *Uganda public expenditure review: Strengthening the health system to improve service delivery*. World Bank.

World Health Organization. (2000). *World health report 2000: Health systems—Improving performance*. World Health Organization.

World Health Organization. (2007). *Everybody's business: Strengthening health systems to improve health outcomes – WHO's framework for action*. World Health Organization.

World Health Organization. (2016). *Global strategy on human resources for health: Workforce 2030*. World Health Organization.

World Health Organization. (2022). *Global health observatory: Health workforce statistics*. World Health Organization.

World Health Organization. (2025). *Health workforce*.

Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource-based view of the firm. *Journal of Management, 27*(6), 701–721.

Wright, P. M., & McMahan, G. C. (2011). Exploring human capital: Putting 'human' back into strategic human resource management. *Human Resource Management Journal, 21*(2), 93–104.