



The state and impact of human resource management practices on employee performance in South Sudan's Public Health Sector: A case study of Juba

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Abstract

This study investigates the critical role of Human Resource Management (HRM) practices on employee performance within the fragile, post-conflict public health sector of South Sudan, specifically focusing on institutions in Juba. The primary objectives were to identify and describe the prevailing HRM practices recruitment, training, compensation, and performance appraisal and to examine their impact on key employee outcomes, including job satisfaction and turnover intention. Employing a mixed-methods research design, the study collected quantitative data through surveys with 107 healthcare workers and qualitative data via 34 key informant interviews and 3 focus group discussions across 14 public health institutions in Juba. Data analysis was guided by the theoretical lenses of the Resource-Based View (RBV), Ability-Motivation-Opportunity (AMO) Theory, and Social Exchange Theory (SET). The findings revealed a significant "Resilience and Turnover Paradox," where employees report high intrinsic job satisfaction derived from their professional calling, yet simultaneously exhibit high turnover intention. This paradox is driven by a profound disconnect between employee motivation and systemic organizational failures, particularly severe deficiencies in compensation and a lack of opportunities for career progression. The study concludes that South Sudan's public health system is at critical risk of losing its most valuable asset—an experienced and resilient workforce due to a fundamental breach of the employment relationship caused by chronic HRM failures. Addressing these foundational HRM deficiencies, particularly through payroll reform and the creation of clear career pathways, is an urgent strategic imperative for workforce stabilization and the sustainability of healthcare delivery.

Keywords: Human Resource Management (HRM), South Sudan, Fragile States, post-conflict, Public Health Sector, mixed-methods, resilience, turnover intention

Introduction

The public health sector serves as a cornerstone of socio-economic development, especially in post-conflict and fragile states where healthcare delivery is vital for community rebuilding and stabilization (Brinkerhoff, 2005) [5]. In South Sudan, the public health sector faces profound challenges, including one of the lowest physician-to-population ratios globally (0.6 per 100,000 people vs. global average of 150) (WHO, 2019) [25] and among the highest maternal and child mortality rates (1,150 maternal deaths per 100,000 live births; 96 child deaths per 1,000 live births) (UNICEF, 2021) [22]. These issues are exacerbated by a lack of infrastructure, with only 30% of facilities functioning at full capacity (UNICEF, 2021) [22], and chronic underfunding, as the country spends less than 2% of its GDP on healthcare (World Bank, 2021 [24]; African Development Bank, 2019) [1].

Effective Human Resource Management (HRM) practices—including recruitment, training, performance appraisal, compensation, and employee relations—are essential for addressing workforce challenges and improving organizational performance in such contexts (Armstrong, 2020) [3]. However, HRM implementation in South Sudan's public health sector is "fraught with challenges," such as political interference, chronic underfunding, and cultural resistance to merit-based systems (George, Jacobs, & Young, 2020) [10]. Despite this importance, there is a "paucity of research" on HRM practices within this specific context, with existing studies largely overlooking the unique challenges of post-conflict and resource-constrained settings like South Sudan. This gap has far-reaching implications, contributing to low job satisfaction, high turnover rates, and

brain drain among healthcare workers (WHO, 2020) [26], ultimately leading to poor service delivery and adverse health outcomes for patients.

This study specifically addresses this research gap by focusing on public health institutions in Juba, South Sudan. The study aims to achieve two primary objectives:

1. To identify and describe the prevailing Human Resource Management (HRM) practices in selected public health institutions in South Sudan, with a focus on recruitment, training, performance appraisal, and compensation in public hospitals located in Juba.
2. To examine the impact of these HRM practices on employee performance, particularly in terms of job satisfaction and turnover intention.

By doing so, the research provides evidence-based recommendations for improving healthcare delivery and addressing workforce challenges in South Sudan's public health sector, with particular relevance for policymakers, HR practitioners, and public health managers.

Theoretical and Empirical Foundations

This study is grounded in three key theoretical frameworks that provide a robust foundation for understanding how HRM practices influence employee performance in resource-constrained settings:

- **Resource-Based View (RBV):** Traditionally applied to competitive markets, this study adapts RBV to a fragile state, focusing on identifying and leveraging critical internal assets for organizational resilience. In South Sudan, the experienced and resilient healthcare

workforce itself represents the public health sector's "most valuable, and perhaps only sustainable, strategic resource" (CORE, 2020) [7]. Knowledge management and strategic resource allocation are critical adaptations of RBV in fragile environments

- **Ability-Motivation-Opportunity (AMO) Model:** This model posits that employee performance is a function of their ability, motivation, and opportunity to perform (Appelbaum, Bailey, Berg, & Kalleberg, 2000) [2]. In South Sudan, HRM practices can enhance healthcare workers' skills (ability), incentivize efforts (motivation), and provide necessary resources and support (opportunity). However, in fragile contexts with salary delays and disparities, maintaining motivation is a significant challenge, necessitating prioritization strategies for interventions (Griffith Research Online, 2018) [11].
- **Social Exchange Theory (SET):** SET emphasizes reciprocal relationships, where fair and supportive HRM practices foster trust, commitment, and higher performance (Blau, 1964) [4]. In conflict-affected regions, trust is often eroded. Fair compensation, open communication, and supportive leadership are crucial for rebuilding trust and fostering positive social exchange (Cropanzano & Mitchell, 2005) [9]. South Sudan's cultural norms, such as collectivistic values, high power distance, and tribal affiliations, significantly influence these dynamics.

Empirically, the public health sector in South Sudan faces severe challenges in HRM:

- **Recruitment and Retention:** The country experiences significant brain drain due to conflict and instability, with skilled professionals seeking safer and more stable environments (WHO, 2020) [23]. Attracting and retaining community health workers is particularly difficult due to insecurity, inadequate training, and limited financial incentives. The dire economic situation, including high inflation and delayed salary payments, further exacerbates these challenges (George *et al.*, 2020) [10].
- **Training and Development:** Post-conflict settings require specialized training, including resilience building and trauma-informed care. While international NGOs play a significant role, the sustainability and long-term impact of these initiatives are a concern, highlighting the need for greater collaboration with the Ministry of Health and building local capacity (McPake, Witter, Ssali, Wurie, Namakula, & Ssenooba, 2013) [16].
- **Performance Appraisal and Compensation:** Implementing effective performance appraisal systems is difficult due to disrupted service delivery and resource shortages. Traditional appraisal methods may be unsuitable, and compensation challenges are acute, with frequent salary delays and significant pay disparities between national staff and those employed by international organizations (Witter, Wurie, & Bertone, 2017) [23]. These issues severely undermine morale and motivation.

- **Contextual Factors:** Political instability and resource constraints profoundly impact HRM systems, necessitating flexible and adaptable approaches. The long-term psychological impact of conflict on healthcare workers leads to high rates of burnout, anxiety, and PTSD, affecting their well-being and ability to provide quality care. Cultural factors like collectivistic values, high power distance norms, tribal affiliations, and religious beliefs also significantly influence HRM practices, potentially conflicting with merit-based systems and leading to inefficiencies. The heavy reliance on international aid, while providing crucial funding, also creates dependency and can undermine local ownership and sustainability (George *et al.*, 2020) [10].

Methodology

This study employed a mixed-methods research design, integrating both quantitative and qualitative data collection and analysis techniques (Creswell & Plano Clark, 2017) [8]. This approach allows for a more comprehensive understanding of the complex research problem by leveraging the strengths of both methodologies, combining deductive and inductive reasoning, and mitigating the limitations of relying on a single method (Johnson & Onwuegbuzie, 2004) [14].

Target Population and Sampling

The target population included healthcare workers and Human Resources (HR) managers within public health institutions in Juba County, Central Equatoria State. This dual focus allowed for insights from both frontline service providers and those responsible for organizational policies and practices.

- **Quantitative Component (Surveys):** For the quantitative phase, stratified random sampling was used to ensure a representative sample. The population was divided into strata based on professional role (e.g., nurses, physicians, HR managers), years of experience, and institution type. While a target sample size of approximately 385 participants was calculated using the Cochran (1977) [6] formula (assuming a 95% confidence level, $p=0.5$, and $\pm 5\%$ margin of error), the achieved sample size was 107 participants. This discrepancy was primarily due to significant field-level challenges inherent to the South Sudanese context, including resource constraints, fear of retribution for sharing candid views, and unforeseen demands for official security clearance. Consequently, the quantitative findings are indicative and illustrative of the surveyed group, with limited generalizability to the entire public health workforce in Juba.
- **Qualitative Component (Interviews and Focus Groups):** Purposive sampling was employed for the qualitative phase to select participants who could offer rich and in-depth information directly relevant to the research questions (Patton, 2015) [18]. This included 34 key informant interviews (KIIs) and 3 focus group discussions (FGDs) across 14 public health institutions in Juba. This method was chosen to gain nuanced insights into the 'why' and 'how' behind observed patterns, focusing on specific characteristics and experiences of the participants.

Data Collection Methods and Instruments

Structured Questionnaires were the primary instruments for quantitative data, featuring closed-ended questions, Likert scales, multiple-choice options, and numerical scales to measure attitudes, perceptions, and demographic information. Semi-structured Interview Guides were developed for individual interviews, providing open-ended questions to facilitate in-depth conversations and allow for exploration of emergent themes. Focus Group Discussion Guides structured group interactions, designed to stimulate dialogue and gather collective insights and diverse viewpoints. All instruments underwent rigorous pilot testing to ensure clarity, comprehensibility, cultural sensitivity, and overall appropriateness before full-scale data collection. The triangulation of these methods and instruments ensured a comprehensive approach to answering the research questions (Jick, 1979) [13].

Data Analysis

- **Quantitative Data Analysis:** Conducted using the R programming language (R Core Team, 2025) [19]. This involved:
 - **Descriptive Statistics:** Summarizing sample characteristics and variable distributions (means, medians, standard deviations, ranges, frequencies, percentages).
 - **Correlation Analysis:** Using Pearson's r to examine the strength and direction of linear relationships between variables.
 - **Regression Analysis:** To model and predict relationships between dependent and independent variables, assessing the influence of specific factors on outcomes.
 - **Qualitative Data Analysis:** Performed using thematic analysis, facilitated by *NVivo* software (Miles, Huberman, & Saldaña, 2020) [17]. This involved transcribing recordings, systematic reading and re-reading to identify initial codes, grouping similar codes into broader themes, and refining these themes to interpret participants' experiences and perspectives.

Ethical Considerations

Ethical approval was obtained from the South Sudan Ministry of Health, Research Ethics and Review Board (MOH-RERB) prior to data collection. Key ethical principles included: informed consent (voluntary participation, full disclosure of study purpose, risks, and benefits), confidentiality (secure data storage, anonymization of identifying information, use of pseudonyms), avoidance of harm (non-invasive methods, right to withdraw, provision of support resources), and cultural sensitivity in instrument design and data collection.

Findings

The study's findings provide an integrated analysis of HRM practices and their impact on employee perceptions and performance outcomes in Juba's public health institutions, weaving quantitative data with qualitative insights.

Demographic Profile of Respondents

The quantitative component included 107 participants. The sample was primarily composed of frontline clinical staff, with Nurses (36.4%) and Physicians (13.1%) constituting the largest professional cadres, ensuring findings reflect direct service delivery perspectives. The workforce was notably experienced, with 68.2% reporting seven or more years of experience, and nearly half (48.6%) having served for over a decade, indicating deep understanding of systemic challenges. The gender distribution was 61.7% female and 38.3% male.

Integrated Analysis of HRM Practices (Objective 1)

The analysis revealed a significant disconnect between formal policy and operational reality across core HRM domains:

Recruitment and Selection: A Contest Between Formality and Informality

- Quantitative data showed a polarized workforce: 45.8% agreed hiring is fair, while 40.2% disagreed.
- Qualitative data explained this tension, with managers describing formal procedures often "superseded by informal pressures". A Medical Director at Hospital A noted, "political and tribal pressures often influence who gets hired, even when they don't meet the qualifications". This compromises procedural justice.

Training and Development: A Framework of Missed Opportunity

- Findings indicate a systemic failure to provide adequate opportunities for professional development, impacting employees' Ability and Opportunity within the AMO framework.
- Only 38.3% of respondents felt they received adequate training, and a mere 31.8% believed sufficient opportunities for professional growth were available.
- Qualitative interviews confirmed that most training is donor-driven, ad-hoc, and inadequately contextualized (e.g., "very theoretical and didn't address practical issues like how to manage with limited supplies").
- Managers cited the lack of clear career pathways as a primary reason for poor retention, forcing motivated professionals to leave the public system.

Compensation and Benefits: A Fundamental Breach of the Employment Relationship

- This domain was unequivocally the most deficient, representing a profound and persistent breach of the employment relationship, as understood through Social Exchange Theory.
- An overwhelming 77.6% of survey respondents disagreed their compensation is fair compared to NGOs, and 72.9% reported that salaries are not paid on time.
- Qualitative data revealed salary delays (lasting "weeks or even months") were universally cited as the "biggest killer of motivation," perceived as a fundamental "violation of trust and respect," which directly fuels turnover.

Performance Appraisal: A System Lacking Procedural Justice

- The performance appraisal system is widely perceived as lacking fairness and utility.
- Nearly half of respondents (47.7% disagreed the evaluation process is fair, and 50.5% disagreed it helps them improve their work).
- Qualitative data showed a severe policy-practice gap, with official forms "rarely used consistently" and the de facto process being "informal," "subjective," and prone to bias. This undermines procedural justice (SET) and fails to provide constructive feedback to enhance employee Ability or link performance to Opportunity (AMO).

Employee Performance Outcomes and the Resilience Paradox (Objective 2)

A significant paradox emerged in employee outcomes: Despite negative perceptions of HRM, 57.9% of respondents reported being satisfied with their job, but simultaneously, 57.9% indicated they would probably seek a new job within the next year.

This "Resilience and Turnover Paradox" suggests employees differentiate between their professional calling and organizational reality. Job satisfaction stems from intrinsic, professional sources like the ability to "make a real difference in people's lives" and "appreciation from patients"—satisfaction with the work itself.

Conversely, turnover intention is driven almost entirely by extrinsic, systemic organizational failures, notably poor compensation and absence of career opportunities. This highlights a highly resilient and intrinsically motivated workforce being systematically pushed out of the public health system.

Hypothesis Testing

Correlation Analysis: A Pearson correlation matrix showed a strong, statistically significant negative correlation between Compensation Satisfaction and Turnover Intention ($r=-0.69$), supporting that pay dissatisfaction is powerfully linked to the desire to leave.

Regression Analysis: A multiple linear regression model explained 51% of the variance in Turnover Intention (Adjusted $R^2=0.51$).

- Compensation Satisfaction emerged as the most powerful statistically significant predictor ($\beta=-0.58$, $p<.001$).
- Training Opportunity was also a significant predictor ($\beta=-0.18$, $p<.05$).
- Appraisal Fairness was not a significant predictor of turnover when controlling for compensation and training, suggesting its impact is secondary to economic stability and career growth in this context.

Discussion and Conclusion

The study's findings reveal a critical dynamic in Juba's public health sector: a highly experienced and intrinsically motivated healthcare workforce is being driven to leave due to chronic and systemic failures in HRM.

The Resilience and Turnover Paradox: An AMO and Motivation-Hygiene Perspective

The "Resilience and Turnover Paradox" is a central finding, where high intrinsic job satisfaction coexists with high turnover intention. This can be understood through an integrated lens of the AMO Theory (Appelbaum *et al.*, 2000) [2] and Herzberg's (1968) [12] two-factor theory of motivation. Healthcare workers derive deep satisfaction from the intrinsic nature of their professional calling, aligning with Herzberg's "motivators" and reflecting their high intrinsic Motivation (AMO). However, the systemic failures in providing Opportunity (e.g., clear career paths, adequate resources) and investing in Ability (e.g., fair and relevant training), particularly inadequate and delayed compensation, act as Herzberg's "hygiene factors". Their absence does not merely reduce motivation but causes active dissatisfaction, driving employees away. In this context, without the foundational "Opportunity" provided by a functioning and fair compensation system, even the highest levels of "Motivation" and "Ability" cannot guarantee retention.

The Broken Covenant: A Social Exchange and Psychological Contract Perspective

The severe deficiencies in compensation and performance appraisal represent a fundamental breach of the employment relationship, as explained by Social Exchange Theory (SET) (Blau, 1964) [4] and the psychological contract (Rousseau, 1995) [20]. Employment is a reciprocal exchange, where employees offer effort and commitment for rewards and support. Salary delays, lasting "weeks or even months," are a "catastrophic failure" by the employer to meet its most basic obligation, interpreted by employees as profound disrespect and a violation of trust, thereby dissolving organizational commitment. Furthermore, the informal, subjective, and biased performance appraisal system undermines procedural justice, a key factor for trust (Leventhal, 1980) [15]. This combination of distributive injustice (unfair pay) and procedural injustice (unfair processes) constitutes a severe breach of the psychological contract, directly leading to the observed high turnover intentions.

Contextual Alignment

These findings align with broader research on HRM challenges in fragile and post-conflict states. The influence of "political and tribal pressures" on recruitment confirms the difficulty in establishing bureaucratic legitimacy over informal patronage networks (George *et al.*, 2020) [10]. Similarly, competition from better-paying NGOs creating a dual labor market is a documented challenge (Witter *et al.*, 2017) [23]. This study demonstrates how these macro-level challenges directly impact micro-level employee trust, motivation, and behavior within the specific Juba context.

Implications and Recommendations

The study's findings have significant implications:

For Policy (Ministry of Health and Government)

- **Prioritize Payroll Reform:** Address systemic causes of salary delays as an urgent national priority. A reliable and timely compensation system is the foundational requirement for stabilizing the health workforce.

- **Develop National Career Pathways:** Create and fund standardized, transparent career progression frameworks for all health cadres to provide tangible advancement opportunities within the public sector.

For Practice (Health Facility Management)

- **Strengthen Procedural Justice:** Implement consistent, transparent, and feedback-oriented performance appraisal processes. Ensuring fairness can help rebuild trust, even with limited resources.
- **Leverage Non-Financial Recognition:** Acknowledge and celebrate intrinsic motivation through low-cost, high-impact recognition programs (e.g., public acknowledgement, 'employee of the month' awards) to show staff their dedication is valued.

For Development Partners and NGOs

- **Align and Harmonize Support:** Coordinate with the Ministry of Health on compensation to minimize market distortions. Align training programs with locally identified needs and focus on building sustainable, in-house training capacity (George *et al.*, 2020)^[10].

Limitations of the Study

Despite scholarly rigor, the study faced limitations:

- **Sample Size and Contextual Barriers:** The achieved quantitative sample size of 107 was smaller than the ideal target of approximately 385 respondents for statistical generalization. This was due to significant field-level challenges in South Sudan, including practical resource constraints, reluctance of potential respondents fearing retribution, and unforeseen demands for official security clearance. Consequently, the quantitative findings are indicative and illustrative of the surveyed group, with limited generalizability to the entire public health workforce in Juba.
- **Geographical Scope:** The study was limited to Juba, an urban setting, meaning findings may not be fully generalizable to rural or remote areas.
- **Cross-Sectional Data:** The quantitative data was collected at a single point in time, establishing strong correlations but not definitively proving causality.

Recommendations for Future Research

Future research could include:

- Comparative studies between urban (Juba) and rural health facilities to understand geographical variations in HRM challenges.
- Longitudinal studies to track health workers over time, better understanding causal drivers of turnover and long-term impacts of systemic issues like salary delays.
- Action research projects to implement and evaluate specific HRM interventions (e.g., a new appraisal system or recognition program) to test effectiveness in improving motivation and trust.

Conclusion

This dissertation has illuminated a critical paradox at the heart of Juba's public health system: a highly experienced and intrinsically motivated workforce is on the verge of departure due to systemic and chronic failures in human

resource management. While healthcare workers demonstrate remarkable resilience, their professional commitment is being eroded by a fundamental breach of the employment relationship, driven primarily by inadequate compensation and a lack of opportunity. Addressing these foundational HRM deficiencies is not merely an administrative task; it is an urgent strategic imperative for retaining the nation's most valuable health asset and ensuring the future of public health service delivery in South Sudan.

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