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**Pathways to Fragmentation: A Historical Analysis of
South Sudan's Security Sector**



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Pathways to Fragmentation: A Historical Analysis of South Sudan's Security Sector



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Abstract

Purpose: This study examines the evolution of South Sudan's security sector from independence in 2011 up to the outbreak of civil war in December 2013. It highlights how structural flaws within the security sector contributed to state fragility and investigates the linkages between security sector reform (SSR) failures and the subsequent crisis.

Methodology: A cross-sectional survey of 127 respondents was conducted in Juba, utilizing both quantitative and qualitative approaches. Statistical analyses including regression analysis assessed the relationship between variables such as ethnic patronage, oversight mechanisms, and personnel capacity and SSR outcomes.

Findings: The study identifies significant associations between SSR failures and the 2013 crisis, with regression results indicating that ethnic organization, oversight deficiencies, and personnel illiteracy accounted for 72.4% of the variance in reform failures. Notably, 94% of respondents perceived SSR implementation as ineffective, and described the security forces as largely fragmented along ethnic lines, which exacerbated tensions and undermined state stability.

Unique Contribution to Theory, Policy and Practice: The research underscores the urgent need for comprehensive, inclusive security sector reforms that address entrenched ethnic biases, strengthen independent oversight, and enhance personnel capacity. It recommends establishing independent oversight bodies, restructuring force composition to promote national integration, implementing targeted literacy and training programs, and ensuring transparent financial management and command accountability. These measures are critical for building a resilient security sector capable of supporting sustainable peace and state-building in South Sudan. The findings contribute to understanding how addressing structural weaknesses is essential to prevent future conflicts and foster long-term stability in post-conflict environments.

Keywords: *South Sudan, Security Sector, SPLA, Historical Institutionalism, Fragmentation, State-building, Security Sector Reform (SSR)*

JEL Codes: *H56, O17, F52, N47, D74*

Introduction

The Republic of South Sudan emerged as the world's newest nation on July 9, 2011, following a referendum that demonstrated overwhelming support for secession from Sudan. After approximately five decades of intermittent civil warfare and a six-year interim period under the Comprehensive Peace Agreement, the formal establishment of South Sudan generated considerable optimism among both the citizenry and the international community (Johnson, 2016). However, this optimism was short-lived, as the nascent state descended into civil war in December 2013, raising fundamental questions about the nature and effectiveness of security sector governance during the transitional period.

Security Sector Reform has emerged as a critical component of post-conflict reconstruction and peacebuilding efforts globally (OECD, 2017). The concept encompasses a holistic approach to transforming security institutions to operate under democratic civilian oversight and in accordance with human rights standards (Sedra, 2010). Despite these internationally accepted norms, local political conditions in South Sudan operated on a fundamentally different normative trajectory from the liberal democratic agenda promoted by international actors (Waal, 2015). This divergence posed significant challenges to implementing SSR, creating foundational problems within the security sector.

This study examines the historical evolution and structural characteristics of South Sudan's security sector before the 2013 crisis and analyzes how these factors contributed to state fragility. It investigates how the security sector's structural characteristics contributed to state fragility using a cross-sectional survey design with 127 respondents in Juba. The study addresses the research question: What was the nature of the South Sudanese security sector before the war broke out in 2013, and how did this contribute to the country's conflict?

This study's findings reveal that an overwhelming majority of respondents (93.7%) indicated that security sector reforms were not effectively implemented before the 2013 conflict. This statistically significant finding confirms the widespread consensus regarding SSR implementation failure, which created structural vulnerabilities that fundamentally undermined state stability and contributed to the conditions that precipitated the December 2013 conflict. This assessment aligns with Johnson's observation that the Sudan People's Liberation Army's transformation from a guerrilla force to a conventional army remained superficial and lacked substantive institutional change (Johnson, 2016). Furthermore, the prevalence of state fragility in post-conflict South Sudan has consistently undermined political will and commitment towards effective governance, hindering efforts to mitigate poverty and innovate inclusive development strategies (De'Nyok, 2025) (De'Nyok, 2025).

Several key factors contributed to this perceived failure of SSR. This study identified the inability to establish effective oversight mechanisms as a significant contributor, leaving security forces operating without democratic accountability. Police reform, for instance, was notably hampered

by the predominance of former SPLA combatants (Abatneh & Lubang, 2011). Moreover, the defense sector remained inflated along ethnic patronage lines, hindering professionalization and national cohesion. Research also indicates that the SPLA's transformation remained incomplete, with personalized command structures and units organized along ethnic lines (Rolandsen & Daly, 2016). These challenges underscore broader 'demand-side problems,' such as a lack of governmental legitimacy and inadequate policy expertise, which often impede effective SSR implementation (Nathan, 2017).

The empirical evidence from this study, based on Chi-square and Pearson correlation analyses, revealed significant associations between SSR implementation failures and the 2013 crisis. The study found strong positive correlations between SSR failure and ethnic patronage ($r = 0.782$, $p < 0.01$), lack of oversight mechanisms ($r = 0.756$, $p < 0.01$), and personnel illiteracy ($r = 0.689$, $p < 0.01$). A multiple regression analysis further confirmed these relationships, with the model explaining 72.4% of the variance in SSR failure. Ethnic patronage emerged as the strongest predictor ($\beta = 0.412$, $p < 0.001$), followed by lack of oversight ($\beta = 0.341$, $p < 0.001$) and personnel illiteracy ($\beta = 0.213$, $p < 0.01$). These findings collectively highlight that deeply embedded structural deficiencies within South Sudan's security sector were primary drivers of its descent into civil conflict in 2013.

Purpose of the Study

This study analyzes the historical development and factors that contributed to the fragmentation of South Sudan's security sector between 2005 and 2013. It aims to understand how internal and external dynamics during this period influenced security sector stability and set the stage for subsequent challenges in the country's path to independence.

Statement of the Problem

This study centers on the rapid failure of South Sudan's post-independence stability and the underlying deficiencies within its security sector. Despite widespread optimism after its independence in 2011, following decades of conflict, the nascent nation plunged into civil war by December 2013 (Johnson, 2016). This swift collapse highlighted critical issues regarding the effectiveness and governance of its security forces during a crucial transitional period.

The study aims to address the critical gap in understanding how the historical evolution and structural characteristics of South Sudan's security sector contributed directly to this state fragility and subsequent conflict. It argues that the internationally promoted ideals of Security Sector Reform, which emphasize democratic oversight and human rights (OECD, 2017; Sedra, 2010), were largely incompatible with South Sudan's local political realities, where the security landscape followed different normative trajectories (Waal, 2015).

Therefore, the study's central problem is that South Sudan's security sector, before the 2013 civil war, suffered from fundamental structural deficiencies and governance failures. These issues,

characterized by aspects such as ethnic patronage, lack of effective oversight, and an un-reformed military apparatus, significantly undermined state-building efforts and ultimately acted as primary catalysts for the escalation of conflict. The study specifically seeks to determine the precise nature of these deficiencies and their causal link to the outbreak of violence.

Theoretical Review

Liberal Peacebuilding Theory (and its Critiques)

Proponents of Liberal Peacebuilding Theory, which emerged prominently after the Cold War, include scholars such as Roland Paris (2004), Oliver Richmond, and Roger Mac Ginty (Ansorg & Gordon, 2020). This framework argues that democratic institutions, market economies, the rule of law, and professional security sectors are essential to sustainable peace. Its core idea is that liberal democratic governance, supported by security sector reform (SSR), creates the foundation for long-term stability and development. The theory emphasizes the importance of Western-style democratic models, often supported by international organizations such as the UN and Western states, to achieve peace in post-conflict settings.

This approach has been highly influential in shaping international peace operations, particularly in post-conflict countries like South Sudan. Its relevance in the study lies in critically examining how liberal peacebuilding, especially SSR, failed to account for local political realities. The theory's strength lies in its normative appeal, providing a clear blueprint for peace rooted in democracy and human rights, and its focus on institutional reforms aimed at building legitimacy. However, its weaknesses include a tendency toward top-down imposition that neglects local agency, existing power structures, and traditional governance systems, often resulting in superficial reforms that lack genuine local ownership.

Critics argue that this approach can lead to ineffective or counterproductive outcomes because it imposes Western models that may not align with local norms and power dynamics (Ansorg & Gordon, 2020; Costantini & O'Driscoll, 2022). These limitations can be mitigated by promoting inclusive approaches that prioritize local participation, adapt reforms to context-specific needs, and integrate formal and informal governance mechanisms. These adjustments aim to foster more sustainable and locally legitimate peacebuilding processes.

Historical Institutionalism

Historical Institutionalism, developed by scholars such as Theda Skocpol (1979) and Paul Pierson (2000), emphasizes that institutions formed at critical junctures tend to persist because of path dependency. It asserts that initial choices and institutional designs create trajectories that are difficult to alter, often constraining political and social developments over time. This approach focuses on how institutions' historical origins shape their current functions and influence future reforms, highlighting the long-lasting effects of early decisions and structural legacies.

In the context of South Sudan, this theory is highly relevant because it explains how the legacy of the SPLA's role as a liberation movement and its organizational patterns have persisted, influencing the security sector's development. The study shows that these inherited structures ethnic patronage, personalized command hierarchies, and militias created path dependencies that hindered effective SSR and fostered fragmentation. The theory's strength lies in its ability to explain why deep-seated institutional patterns resist change, especially in post-conflict settings where initial institutions are often built under duress or conflict conditions.

However, a weakness of this theory is its potential determinism, which can underestimate agency and the capacity for transformative reform. It may overlook moments when actors challenge or alter institutional paths. To mitigate this, scholars suggest combining it with theories emphasizing agency, focusing on critical junctures where change becomes possible, and exploring how institutions can adapt gradually over time. This nuanced approach helps recognize both the constraints and opportunities for reform within entrenched institutional legacies.

The Security-Development Nexus

The Security-Development Nexus, gaining prominence in the late 1990s and early 2000s through scholars like David Chandler (2007) and organizations like OECD-DAC, posits a reciprocal relationship between security and development. It argues that insecurity, whether through conflict, violence, or weak governance, undermines socio-economic progress, while poor development fuels grievances and conflict, creating a vicious cycle. The framework advocates integrated policies that address security and development challenges simultaneously, emphasizing that sustainable peace relies on mutually reinforcing strategies.

In South Sudan, this theory is highly relevant because the failure to establish a legitimate security sector directly hampered development efforts. The study demonstrates how persistent insecurity, driven by ethnic patronage, lack of oversight, and armed factions, prevented economic growth and social cohesion. The theory's strength is its holistic perspective, recognizing that peacebuilding requires coordinated efforts across security and development sectors to break cycles of fragility. It encourages comprehensive approaches that foster stability and socio-economic progress.

Nonetheless, its weaknesses include the risk of "securitization," where development is subordinated to security agendas, potentially marginalizing humanitarian principles (Dawar & Khan, 2025). Additionally, operationalizing the nexus can be complex, leading to superficial or fragmented implementation. To address these issues, scholars recommend adopting a human security approach that prioritizes individual safety and well-being, maintaining the independence of development goals, and promoting inclusive, context-specific strategies that genuinely address local needs and vulnerabilities.

Empirical Literature Review

Detzner's (2017) study examines recurring patterns of success and failure in post-conflict security sector reform (SSR) programs across African countries, particularly those with substantial external involvement since the 1990s. Utilizing a comparative analysis of multiple case studies, the research identifies systemic issues that hinder effective SSR implementation, such as inadequate assessments of the security environment, lack of genuine local ownership, insufficient resources for disarmament, and poor donor coordination. The study emphasizes that these failures often occur at similar points across different contexts, highlighting the persistence of certain structural and process-related flaws. A key gap is understanding how to overcome these systemic issues by fostering authentic local ownership and ensuring reforms are contextually tailored and comprehensively coordinated to achieve sustainable outcomes. Detzner's findings suggest that successful SSR requires a nuanced understanding of local political dynamics and a shift away from one-size-fits-all approaches. The study underscores that external actors often impose reform models that do not align with local realities, contributing to repeated failures. Despite recognizing these issues, the research points to a gap in effective strategies for addressing systemic challenges, particularly in integrating local stakeholders meaningfully and ensuring reforms are adaptable to specific national and regional contexts. Future research should focus on developing practical frameworks that promote genuine ownership and coordinated efforts to enhance the sustainability of SSR initiatives in Africa.

Warner (2016) explores the challenges and dynamics of military integration in South Sudan during the transitional period from 2006 to 2013. Based on qualitative data from interviews with SPLA officers, Ministry of Defense officials, UN personnel, and consultants, the study offers an in-depth understanding of how external and internal factors shaped the integration process. Warner argues that although the initial military integration helped prevent large-scale conflict and maintained stability before the 2011 independence referendum, the process was poorly designed and poorly executed, lacking sufficient support and context-specific planning. External actors' focus on rightsizing and professionalization often overlooked the complex internal politics and ethnic tensions that undermined the process. The study implicitly identifies a research gap concerning how external support for military reforms can be better tailored to local political realities, especially in fragile post-conflict settings with deeply entrenched ethnic and political divisions. Warner emphasizes that military integration in South Sudan was hindered by a lack of political sensitivity and understanding of the internal power dynamics within the SPLA. The findings highlight the importance of context-aware, politically informed support from external actors, rather than generic, idealized models of military reform that may not suit the specific needs and complexities of post-conflict societies like South Sudan.

Munive (2013) critically examines the challenges faced in disarmament, demobilization, and reintegration (DDR) efforts in South Sudan following the Comprehensive Peace Agreement. Using a qualitative analysis of the SPLA's transformation and the role of ethnicity in mobilization,

Munive highlights that DDR programs struggled to convert armed groups into a cohesive, professional national army. The SPLA remained fragmented along ethnic and factional lines, with loyalty primarily rooted in specific commanders and ethnic groups, particularly the Dinka. The research underscores that the persistent factionalism, rooted in ethnicity and power struggles, posed significant obstacles to effective DDR and SSR processes. The study points out a clear research gap in the applicability of conventional peace and security models, which often fail to address the deep-rooted ethnic and factional loyalties that characterize South Sudan's security landscape. Munive's findings show that traditional DDR approaches often overlook the importance of addressing ethnic identities and political loyalties, which continue to shape security reform outcomes. The research calls for more context-specific strategies that acknowledge and incorporate local social and political realities, emphasizing the need for tailored approaches that can effectively manage ethnicity and factionalism in post-conflict SSR efforts.

Kwaja (2010) analyzes the prospects and challenges of implementing security sector reform (SSR) and improving access to justice in Sudan. The study explores how Sudan's security institutions, including the military and police, operate within a highly politicized, opaque, and undemocratic environment. Kwaja emphasizes that the lack of transparency, accountability, and capacity to address impunity significantly hampers genuine SSR efforts. The research highlights that the political environment's resistance to reform, coupled with persistent human rights abuses and weak institutions, makes the path to effective SSR and justice reform exceedingly difficult. The identified research gap involves developing strategies to build political will and transparent, accountable security institutions in deeply resistant political contexts. The study finds that without addressing the underlying political and institutional barriers, reform efforts are unlikely to succeed. Kwaja advocates for approaches that engage political actors and build local capacity, but notes that current strategies lack sufficient focus on transforming the political culture that sustains impunity and undermines justice. The findings suggest that overcoming these entrenched challenges requires sustained political commitment and innovative reform mechanisms tailored to Sudan's complex political landscape.

Isima (2007) investigates how the privatization of violence influences security sector reform (SSR) in Nigeria and South Africa. Through case studies, Isima demonstrates that informal security actors such as militias, armed groups, and private security companies play a significant role in shaping security dynamics in these countries. The research highlights that the presence of privatized violence undermines state capacity, complicates efforts at SSR, and often perpetuates insecurity. The study emphasizes that addressing state weakness involves not only formal SSR reforms but also tackling the proliferation of private and informal security providers that operate outside state control. The research identifies a critical gap in how SSR frameworks can effectively regulate and incorporate these non-state actors into formal security structures. Isima argues that successful state-building in Africa requires integrating efforts to control privatized violence with broader institutional reforms. The findings suggest that without addressing the root causes of state fragility

and the institutional weaknesses that facilitate privatization, SSR initiatives are unlikely to succeed. Future research should explore strategies to better regulate and oversee private security actors within comprehensive state-building efforts.

Buyinza (2025) employs a theoretical framework grounded in Lijphart's (1969) consociationalism to analyze the interplay of ethnicity, politics, and security in South Sudan from 2011 to 2024. The study examines how deep ethnic divisions influence political stability and security outcomes, considering the country's attempts at power-sharing arrangements and institutionalized governance. Although the full findings are pending, the research aims to assess whether these power-sharing mechanisms can mitigate ethnic tensions and reduce violence, or whether they risk entrenching divisions further. A notable gap in Levi's framework is the need to evaluate the effectiveness of consociational arrangements in managing ethnic conflict within security institutions, especially given the failures of previous SSR efforts. The study suggests that, if properly implemented, power-sharing could serve as a stabilizing mechanism, but persistent ethnic favoritism, political rivalry, and lack of trust may undermine these efforts. The research underscores the importance of designing inclusive, context-sensitive political arrangements that can foster stability and security by managing ethnic identities and political interests more effectively.

Research Methodology

This study used a cross-sectional survey design that integrated quantitative and qualitative approaches to provide a comprehensive understanding of security sector activities in South Sudan. The target population included 190 individuals actively involved in security sector reform, policy implementation, and operational roles in Juba City. To ensure representativeness, the Krejcie and Morgan (1970) sampling table was used to determine an optimal sample size of 127 respondents, selected through simple random sampling. Data collection used structured questionnaires to capture quantitative data on perceptions, challenges, and outcomes related to security reforms, along with semi-structured interview guides to gather in-depth qualitative insights. The questionnaires were pre-tested for validity and reliability, and data collection followed ethical guidelines, including informed consent and confidentiality. Data analysis was conducted using SPSS Version 19, employing descriptive statistics such as frequencies and percentages to summarize responses, along with inferential statistical techniques including Chi-square tests, Pearson correlation coefficients, and multiple regression analysis to explore relationships and predictors of security sector reform outcomes. The significance level was set at $\alpha = 0.05$ to determine statistical significance.

This mixed-methods approach allowed a nuanced exploration of the complexities of security sector reform in South Sudan, capturing both measurable patterns and the contextual factors shaping reform processes. Quantitative analyses provided statistical evidence on correlations and predictors of successful reforms, while qualitative insights offered contextual understanding of the

challenges security actors faced. Combining these methods strengthens the robustness and validity of the findings and supports evidence-based recommendations for policymakers and security practitioners. According to Creswell and Plano Clark (2017), mixed-methods research is particularly effective for complex social phenomena like security reform, where both numerical data and contextual narratives are essential for comprehensive analysis. This methodology thus provides a solid foundation for understanding the multifaceted nature of security sector reform efforts in post-conflict South Sudan.

Results and Discussion

Results

Demographic Characteristics of Respondents

This section presents the demographic characteristics of the 127 respondents who participated in the study. Table 1 summarizes the distribution of respondents by gender, age group, and education level.

Table 1: Demographic Characteristics of Respondents (n=127)

Variable	Frequency (f)	Percentage (%)
Gender		
Male	88	69.3
Female	39	30.7
Age Group		
18-25 years	23	18.1
26-30 years	41	32.3
31-45 years	58	45.7
46+ years	5	3.9
Education Level		
Primary	13	10.2
Secondary	46	36.2
University Degree	56	44.1
Master's Degree	12	9.5

Source: Field Data (2020)

Table 1 shows that most respondents were male (69.3%, n=88), compared with females (30.7%, n=39). In terms of age distribution, the largest proportion of respondents (45.7%, n=58) were aged 31-45 years, followed by those aged 26-30 years (32.3%, n=41). In terms of educational attainment, 44.1% (n=56) held university degrees, while 36.2% (n=46) had secondary education.

The demographic profile indicates that respondents were predominantly male, reflecting the gender dynamics in South Sudan's security sector where males dominate security-related positions. The concentration of respondents in the 31-45 age bracket suggests that participants had sufficient experience to provide informed perspectives on SSR processes. The relatively high educational attainment (53.6% with university or master's degrees) enhances the credibility and reliability of responses regarding complex security sector dynamics.

Implementation of Security Sector Reforms Before 2013

Respondents indicated whether security sector reforms were effectively implemented before the outbreak of the 2013 conflict. Table 2 presents the distribution of responses.

Table 2: Implementation of Security Sector Reforms Before 2013

Response	Frequency (f)	Percentage (%)
SSR was NOT effectively implemented	119	93.7
SSR was effectively implemented	8	6.3
Total	127	100.0

$$\chi^2 = 89.47, df = 1, p < 0.001$$

Table 2 reveals that an overwhelming majority of respondents (93.7%, n=119) indicated that security sector reforms were not effectively implemented before the 2013 conflict. Only 6.3% (n=8) believed that SSR was effectively implemented. The Chi-square test yielded a statistically significant result ($\chi^2 = 89.47$, $df = 1$, $p < 0.001$), indicating that the observed distribution significantly departed from expected frequencies.

The statistically significant Chi-square result confirms overwhelming consensus on SSR implementation failure before the 2013 crisis. This finding aligns with Johnson's (2016) assessment that the SPLA's transformation from a guerrilla force to a conventional army remained superficial and lacked substantive institutional change. Ineffective SSR implementation created structural vulnerabilities that undermined state stability and contributed to the conditions that precipitated the December 2013 conflict.

Factors Contributing to Security Sector Reform Failure

To identify the specific factors that contributed to SSR failure, respondents rated their agreement with various statements using a four-point Likert scale. Table 3 presents the response distribution and descriptive statistics.

Table 3: Respondents' Agreement on Factors Contributing to SSR Failure

Statement	SA (%)	A (%)	D (%)	SD (%)	Mean
Inability to establish oversight mechanisms contributed to the 2013 crisis	71.0	15.0	8.0	6.0	3.51
Defense sector remained inflated along ethnic patronage lines	52.0	27.0	11.0	10.0	3.21
Most integrated armed rebels were illiterate and untrained	63.0	16.0	10.0	11.0	3.31
Organized forces composed of former SPLA soldiers	73.0	15.0	6.0	6.0	3.55
Overall Mean					3.40

Note: SA=Strongly Agree (4), A=Agree (3), D=Disagree (2), SD=Strongly Disagree (1); Mean interpretation: 1.0-1.75=SD, 1.76-2.50=D, 2.51-3.25=A, 3.26-4.0=SA

Table 3 reveals strong agreement across all factors contributing to SSR failure. The highest agreement was recorded for the statement that organized forces were composed of former SPLA soldiers (Mean = 3.55), with 88% of respondents agreeing or strongly agreeing. This was followed by the inability to establish oversight mechanisms (Mean = 3.51, 86% agreement), illiteracy among integrated rebels (Mean = 3.31, 79% agreement), and ethnic patronage in the defense sector (Mean = 3.21, 79% agreement). The overall mean of 3.40 indicates strong agreement with the identified factors.

The high mean scores confirm that multiple structural factors contributed to SSR failure in South Sudan. The predominance of former SPLA soldiers across all organized forces created a homogeneous military culture resistant to reform. The failure to establish oversight mechanisms left security forces operating without democratic accountability. These findings corroborate Nathan's (2017) identification of 'demand-side problems' including lack of governmental legitimacy and inadequate policy expertise that hinder SSR implementation.

Correlation Analysis of SSR Failure Factors

Pearson correlation analysis examined the relationships among the factors contributing to SSR failure. Table 4 presents the correlation matrix.

Table 4: Pearson Correlation Analysis of SSR Failure Factors

Variable	1	2	3	4
1. SSR Failure	1.000			
2. Lack of Oversight	.756**	1.000		
3. Ethnic Patronage	.782**	.698**	1.000	
4. Personnel Illiteracy	.689**	.612**	.723**	1.000

**Correlation is significant at the 0.01 level (2-tailed), $n = 127$

Table 4 presents Pearson correlation coefficients among SSR failure factors. Strong positive correlations were found between SSR failure and ethnic patronage ($r = .782$, $p < 0.01$), SSR failure and lack of oversight mechanisms ($r = .756$, $p < 0.01$), and SSR failure and personnel illiteracy ($r = .689$, $p < 0.01$). Additionally, the predictor variables were significantly intercorrelated, with ethnic patronage and personnel illiteracy showing a strong relationship ($r = .723$, $p < 0.01$).

The correlation analysis reveals that all three factors ethnic patronage, lack of oversight, and personnel illiteracy have strong positive relationships with SSR failure. Ethnic patronage showed the strongest correlation with SSR failure ($r = .782$), suggesting that organizing military units along ethnic lines was the most significant contributor to reform failure. The significant inter-correlations among predictor variables indicate that these factors operated synergistically, creating a complex web of structural impediments to security sector transformation.

Multiple Regression Analysis

Multiple regression analysis was conducted to determine the extent to which the identified factors predicted SSR failure. SSR failure was the dependent variable, while lack of oversight, ethnic patronage, and personnel illiteracy were the independent variables. Table 5 presents the regression results.

Table 5: Multiple Regression Analysis: Predictors of SSR Failure

Predictor Variable	B	SE	β	t-value
(Constant)	0.423	0.187	-	2.262*
Lack of Oversight	0.312	0.054	0.341	5.778***
Ethnic Patronage	0.387	0.048	0.412	8.063***
Personnel Illiteracy	0.198	0.062	0.213	3.194**

$R^2 = 0.724$, Adjusted $R^2 = 0.717$, $F(3,123) = 107.23$, $p < 0.001$; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The multiple regression model was statistically significant, $F(3,123) = 107.23$, $p < 0.001$, and explained 72.4% of the variance in SSR failure ($R^2 = 0.724$, Adjusted $R^2 = 0.717$). Ethnic patronage

emerged as the strongest predictor ($\beta = 0.412$, $t = 8.063$, $p < 0.001$), followed by lack of oversight mechanisms ($\beta = 0.341$, $t = 5.778$, $p < 0.001$), and personnel illiteracy ($\beta = 0.213$, $t = 3.194$, $p < 0.01$). All three predictor variables contributed significantly to the model.

The regression model demonstrates that ethnic patronage, lack of oversight, and personnel illiteracy collectively explain a substantial proportion (72.4%) of the variance in SSR failure. Ethnic patronage had the largest standardized coefficient ($\beta = 0.412$), indicating that for every one standard deviation increase in ethnic patronage, SSR failure increased by 0.412 standard deviations, holding other variables constant. These findings confirm that structural factors within the security sector were primary contributors to reform failures and provide empirical support for targeted interventions addressing these specific areas.

Conclusions

This study conclusively demonstrates that South Sudan's security sector was plagued by significant structural weaknesses prior to the 2013 crisis, which contributed to the subsequent security breakdown. Statistical analyses revealed a strong and statistically significant association between failures in security sector reform (SSR) implementation and the outbreak of the conflict ($\chi^2 = 89.47$, $p < 0.001$). The regression model explained a substantial 72.4% of the variance in reform failure, identifying key factors such as ethnic patronage ($\beta = 0.412$), lack of oversight mechanisms ($\beta = 0.341$), and personnel illiteracy ($\beta = 0.213$) as primary contributors. Furthermore, the strong positive correlations among these variables (ranging from 0.69 to 0.78) suggest they operate synergistically, collectively exacerbating the fragility of the security sector and impeding reform efforts. These findings highlight the importance of addressing deep-rooted structural issues—including ethnic favouritism, weak oversight, and capacity gaps—in designing effective post-conflict SSR initiatives.

Overall, the results emphasize that sustainable security sector reform in South Sudan cannot be achieved without tackling these foundational challenges. The intertwined nature of ethnic patronage, oversight deficiencies, and personnel capacity issues underscores the need for comprehensive, reform-oriented strategies that promote inclusivity, accountability, and capacity building. Failing to address these structural deficiencies risks perpetuating cycles of violence and instability, as evidenced by the correlation between reform failures and conflict resurgence. Therefore, policymakers and international actors involved in SSR should prioritize structural reforms that mitigate ethnic biases, strengthen oversight institutions, and improve personnel literacy to foster long-term peace and stability in South Sudan. This study reinforces the critical need for holistic approaches that recognize the complex, interconnected factors undermining security reform in fragile states.

Recommendations

Based on the findings, this study recommends the following measures to address the structural deficiencies identified in South Sudan's security sector:

- i) Establish comprehensive oversight mechanisms that involve a broad range of stakeholders, including parliament, civil society organizations, independent commissions, and international observers. These bodies should have legal authority and resources to monitor, evaluate, and report on security sector activities, ensuring transparency, accountability, and adherence to human rights standards. Institutionalize regular public reporting and independent audits to prevent abuse and corruption.
- ii) Restructure the composition of security forces to reduce ethnic concentration and foster national integration. This could involve implementing recruitment policies that promote diversity, creating inclusive command structures, and ensuring equitable distribution of resources and responsibilities across different ethnic groups. Such reforms aim to diminish ethnic patronage networks and build a more unified national security apparatus capable of maintaining peace and stability.
- iii) Implement targeted educational and training programs to address literacy deficits among security personnel, with particular focus on managerial, legal, and human rights training. These programs should be tailored to the specific needs of different ranks and units, utilizing modern instructional methods and continuous professional development to improve personnel capacity, discipline, and adherence to reform objectives. Enhancing literacy and skills will improve operational effectiveness and reinforce a culture of accountability within the security forces.
- iv) Create transparent and robust financial management systems to oversee the allocation, disbursement, and utilization of reform funds. This involves establishing clear procurement procedures, conducting regular financial audits, and publicly disclosing expenditures related to security reforms. Strengthening financial oversight will help prevent misappropriation, corruption, and misuse of resources, thereby ensuring that reform efforts are effectively financed and sustained.
- v) Develop mechanisms for commander accountability in the implementation of reform agendas. This can include performance-based evaluations, clear disciplinary procedures, and establishing a civilian-led oversight body to monitor commanders' adherence to reform policies. Holding commanders accountable will motivate compliance with reform initiatives, reduce impunity, and foster a culture of professionalism and integrity within the security sector.

Implementing these recommendations requires coordinated efforts among government agencies, international partners, and civil society, with a focus on creating sustainable, inclusive, and transparent security institutions that can effectively serve the needs of South Sudan's population.

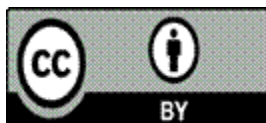
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