



INFLUENCE OF LOGISTICS OPTIMISATION ON PERFORMANCE OF SOUTH SUDAN PEOPLE'S DEFENCE FORCE

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Week, L. K.,^{1*} & Majany, G.²

^{1*}Msc. Scholar, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Nairobi, Kenya

²Ph.D, Lecturer, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Nairobi, Kenya

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ABSTRACT

The main objective of this research project was to determine the influence of logistics optimisation on performance of South Sudan People's Defence Force. Descriptive statistics was chosen as the appreciate research design. The study zeroed down on 200 respondents that were drawn from various units of South Sudan People's Defence Force composed of non-commissioned and commissioned officers. Data was analysed using SPSS version 20, a statistical software suitable for social science researches. With regards to the relationship between performance of the military and logistics, it was worth noting that among other duties which the military undertook, there were two specific crucial roles which override other responsibilities. These were national security and emergency response in the event of natural calamity. The study found that 52.4 % of the performance of South Sudan People's Defence Force was influenced by logistics, however there were also some flaws in logistics system of South Sudan military that needed to be addressed in order to fully optimised their performance in terms of efficient and robust response to matters related to security or natural calamity as well as contributing to regional peace and joined missions if required. Therefore the study recommended the need for more improvement on logistics system that would equate South Sudan's military capacity and readiness to other modernised militaries of the world. Transport system should be enhanced by acquiring many multipurpose mixed fleet of vehicles specifically designed for bad terrain and cargo planes that could be used where such vehicles cannot make it. There was also a need to improve on warehousing management practices to avoid misuse of space and poor storage conditions as it had been the case. This study also recommended acquisition of new communication equipment not vulnerable to weather conditions given that old radios were still being used. Again, there was a real need to incorporate the use of inventory management tools to do away with all sorts of inventory bottlenecks.

Key Words: Transport System, Warehousing Management, Information Management, Inventory Management, South Sudan People's Defence Force

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INTRODUCTION

Logistics is key to performance of the military, we are living in the world punctuated by conflicts, terrorisms and natural disasters all of which require rapid response from the military, thus optimising armed forces' logistics is very vital to optimise their performance for any eventualities. Country's ambition to invest in technologies, programs and products geared towards boosting national defence strategy and support of the armed forces is paramount to achieving the required level of performance. It is advisable to establish logistics systems that can advance armed forces' resolve to improve mission capabilities. According to Zoe (2017) fuel and electricity required to power equipment vital for military operations constitutes a large chunk of logistics strength. Some technologies and processes uniquely designed for military logistics should be used optimally for crucial security programs as well as aiding development and natural disasters relief (Torben, 2017).

Wihtol (2012) posits that logistics performance can be examined from users' and society's satisfaction. Respective users care about the costs, efficiency and service quality (reliability, safety and transit time) and the pressure that logistics providers should reduce cost and enhance speed Wihtol (2012). Government undertakes vital roles with respect to logistics development such as establishing, enhancing and continuous regulation of institutional frameworks to grantee efficiency of operations, establishment of conducive competitive environment and orientation of logistics sector on safety and energy efficient, adoption of environmental friendly logistics practices and building of infrastructures that will improve logistics efficiency.

According to James Mattis (2016) European Armed Forces have multiples struggles ranging from mobilization, striking a balanced ratio between combat and logistics and the actual application in real life situations regardless of the recent innovations in logistics. Logistics amounts to 8% and 11% of the GDP in main Europe and North America

economies (Amstrong and associates, 2007). This is a manifestation that there will be no good performance without factoring in the aspect of logistics efficiency and effectiveness. According to John (2013) about 30% of the working population in the UK are associated with work that is related to logistics, an indication that logistics is a catalyst to performance. Lotus Thread Company (LTCL) in India manufactures threads in one location and distributes them to various units all over regional offices (Raghuram & Rangaraj, 2010). As much this company is a mere thread manufacturing company, it relies on effective and efficient Logistic system to afloat in a murky competitive investment environment.

Various efforts being undertaken by East African governments such as SGR Project meant to cutback logistical delays have proven to be inefficient. According to SCEA(2013) report , the region of East Africa still lags behind in term of logistics performance given delays and high transportation cost are still a barrier to effective and efficient trade compare to other regions. Transportation on exported goods alone amounts to 60-70 percent superseding United States and Europe; also above that of Southern Africa. However cargo dwell times has reduced significantly in both ports of Mombasa and port of Dar es Salaam , Mombasa being the busiest port in the region given it serves five countries namely Kenya, Uganda, Rwanda, Burundi and South Sudan Mombasa but it managed to record maximum of 5 days cargo dwell time in 2012 compared to 6.5 days in 2011. While on the other hand Port of Dar es Salam came down to average days. Though these improvements have been done on both ports, still the level of efficiency falls below international standard of maximum 3 days. Corridor's efficiency is also still being quashed by unfavourable regulations to trade associated with road transport sector marked by countless checkpoints (weighs bridges, customs and police checks) along corridor transport. Burundi is mediocratic as it ranked the highest with checkpoints after every 100 kilometres, as Kenya

and Uganda fall in the second and third positions 1.5 per and 1.3 per 100 kilometre respectively(SCEA, 2013). The risk based –clearance system has not made any much improvement either given goods’ clearance is still docked with unnecessary bureaucratic inspections and counter inspections which amount to high costs on goods traded across the borders, and unwanted delays. Kenya and Uganda respectively subject 75% and 25% physical inspection on imported goods, while Burundi alone constitutes 50% physical inspection on physical goods and on top of it , 3 sets of documents are required to be able to process standard import and export transaction in Kenya.

In the subsequent years prior to Interim period ,Southern Sudan embarked on establishing most of the institutions, however such institutions ended up being inefficient and incurred massive costs which couldn’t be sustained of which poor logistics has been the major high cost contributor coupled with poor planning and mismanagement(John , 2010). South Sudan could have learned from mixed UNMISS’s logistics model of the use of cargo, helicopters and trucks based on different circumstances to support all the United Nations’ bases across South Sudan resulting into superb performance, unfortunately South Sudan and United Nations do not match in terms of resources (Molly, 2016).

Correlation between logistics and effective operational performance of the military in combat situations dates back to pre and post-world war histories. Logistics is key to the efficiency of military operations, it is a universal belief that military as one of the largest institutions of any country inclusive of the Republic of South Sudan must have the best logistics system. According to Davis (2009) logistics is one of the basic tenets of every army be it conventional or guerrilla to be efficient and effective that would grantee rapid response to perform to the expectations should the needs arise. Aggressiveness and readiness of any security organ is based on logistics support, this is referred to as CSS (Combat Service Support); winning war and

triumphs in the battle fields are achieved through effective and efficient logistics (Pagonis, 2012). America and Allied forces used massive logistics power to airlift men, vital military assets, food and medical supplies to outsmart Saddam Hussein in the war against Iraq in 2003(Ruben, 2014). No one would ever imagine that the west would for the second time defeat Saddam Hussein, an adversary who was prepared for the war, this victory could have not been achieved without shifting the necessary resources to the Gulf which was not a gamble but rather due to American’s and allies’ enhanced logistics systems.

Statement of the Problem

South Sudan People’s Defence Force is marked by logistical inefficiencies, efficiency of South Sudan People’s Defence Force is below the expected level of a conventional army. According to William (2008) one of the challenges that has riddled performance of South Sudan People’s Liberation Army is poor logistics. South Sudan has been going through cycles of violent either with herself or with her immediate neighbour, the North Sudan, this phenomenon has led to underdevelopment of the very important institution such as the military whose response is expected to be resolute and massive to matters of security and natural calamities facilitated by an efficient and an efficient logistics, however with the current state of affairs, South Sudan’s military is quashed by logistical inefficiencies which slow down its response (Bith , 2015). South Sudan lost 70 percent of the revenues following 2013 coup attempt that resulted into civil war which cutback oil production; oil has been the sole economic life blood which South Sudan depends on for funding her institutions such as the military, besides a lot of military equipment ranging from vehicles, tanks, ammunitions and so forth were either looted or burned down (Yakub, 2014).

According to Lino (2011) there are always clashes at the South-North border, cases of cattle raids are also so rampant among pastoralists in South Sudan, rapid response could foil some of these incidences from happening, unfortunately challenges such as

lack of proper mode of transport delays movement of troops to rescue any situation ,and owing to these logistical inefficiencies, the response of South Sudan military is believed to be close to or less than 2% which is way below than what is expected of a modern military. In the words of Augustine (2013) some of the challenges which bog down performance of South Sudan People's Defence Force lie with logistical inefficiencies which cause delays to rapidly respond to matters of security and natural calamities, performance of South Sudan military in responding to issues of security and emergencies is 4%, this is below average compare to other militaries in the region. According to UN report (2012) SPLA's response towards flood affected victims in Bor was rated at 1%, many lives which could have been rescued perished as a result of logistical inefficiencies. When you look at 1% as the best South Sudan military could afford in handling natural calamity, it is way below the Indonesia's 80% military response when one of her regions was struck by Tsunami. As much South Sudan is trying what it can with regards to improving the systems in all government's institutions, it is yet to be determined how an important institution such as the military can be organised logistically so that it is able to efficiently and effectively undertakes normal duties as expected of the security organ (Creg 2017).

Banggol (2012) posits that as South Sudan was poised with forging institution of which establishing an army was part and parcel of transformation, the daunting task now was logistical nightmares as guerrillas were fragmented into different security organs and supplemented with fresh recruits , a move far too high than South Sudan's mega resources.

Logistical inefficiencies within South Sudan army have been compounded by integration initiative which was seen as a sign of reunifying the fighters presumed as a deterrence mechanism to a pop up of any other unwanted negative armed actors which could have derailed the drive of South Sudanese front towards independence, sadly it led

to unintended military disorganization (Daniel, 2012). According to Karl (2009) attempts to curb insurgency and proxies didn't stop the formation of other negative forces in the territory of South Sudan, still multiple groups of approximately 70% of the total military formed themselves with the help of Sudan Government which never wanted a breakaway of one of her regions. Abuse of the integration process given people who had never stepped into any military training camp could dare and dress in military uniforms, and to make matters worse, they would commission themselves with very high ranks and continuously flocked into SPLA integration centres, and as it became the order of the day, the size of the military increased incredibility which made it difficult for South Sudan to contend with logistically.

Research Objective

The purpose was to establish the influence of logistics optimisation on performance of South Sudan People's Defence Force. The specific objectives were:-

- To assess the effect of transport system on performance of South Sudan People's Defence Force
- To determine the effect of warehousing management on performance South Sudan People's Defence Force
- To examine the effect of information management on performance of South Sudan People's Defence Force
- To evaluate the effect of inventory management on performance of South Sudan People's Defence Force

LITERATURE REVIEW

Theoretical Review

Resource Based Theory

Resource Based theory (RBV) by Barney (1991) is of the notion that internal sources of the firm are a valuable competitive advantage to the firm given their distinctive nature of uniqueness, rarity and complexity to substitute (Tukamuhabwa, Eyaa & Derek, 2011). Resources regarded as tools in

achieving competitive advantage are those ones which assist the firm to undertake plans and strategies aimed at improving performance, gain market share or deter the foreseeable danger ((Barney and Clark ,2007). Karia and Wong (2011) stated that differences and successes between the firms are based on their resources in the sense that competitive advantage is achieved where special regards is paid to logistics compare to where the importance of logistics is neglected given it would definitely equates to wastages in daily operations, and hence hefty costs affecting the overall performance of the firm. In the logistics industry, resources are considered as vital and recipe for undertaking operations geared towards improving firm's competitive advantage (Aldin, 2004). The Resource-Based concept is much focused on the internal shortcomings and external capabilities contrary to the industrial companies' economics view of keeping an eye on the external opportunities and threats (Shang & Marlow 2005). Shang and Marlow emphasized that in the event when the external environment is conducive, firm's resources could simply be controlled.

Resource Based Theory states clearly that a firm is an amalgamation of intangible and tangible resources (Kraaijebrink, 2010). This makes each firm distinct from the other regardless of being in the same industry, meaning it is rare to find firms with equal experiences neither would they be at the same levels in owning resources or skills capabilities and organizational culture (Barney et al ,2007). Disparities are the basis of making strategic decisions, this can't be achieved without curtailing logistics costs (Shang et al, 2005).

Theory of Constraints

Theory of constraints was invented by Eliyahu Goldratt (1984) in his book titled "the Goal", it is based on constraints that hinder the firm from progress. Goldratt, Cyplink, Hadas and Domanski (2009) theorized that considerable breakthrough should be made towards controlling constraints which hinder the system from obtaining the highest level of performance. A lot of wastages are incurred

through operations of which logistics carries large chunk of it which could in fact thwarts the company from performing to the expected level. The TOC model is of an idea that the company must have minimal constraints (Simatunpang, Wright & Sridharan 2004). Flores and Pimo (2008) reiterated that with current market marked by surging demands and shifting preferences, logistics has turned out to be one of the weapons upon which competitive advantage is based.

Firm Theory

Firm theories were created on the notion of what makes firm thrives, their origin is traced to deductive economics founded on transaction cost theory (Mentzer, Min & Bobbitt, 2004). According to Mentzer et al (2004) the idea of keeping transaction costs at minimum was based on whether firm's life depends on coordination of production activities or other factors, the findings revealed success of the firm relies on the difference which arises between market's contracts and that of the firm. If market's contracts were to be based on low transaction costs, then all it takes for the firm to produce must meet this criteria where logistics must have a bearing on the cost aspect (Fugate, 2010). According to Meltzer et al (2004) organization which achieves growth is the one that effectively controls operation costs, transaction costs and production costs. In the view of Fugate (2010) when a firm manages logistics costs effectively, it would positively impact transaction and production costs. Logistics ambiguity associated with manufacturing expenses incurred through supply chain loopholes, new product development, customers' unpredictability and technological shifts have a bearing on the performance of the firm (Das & Teng, 2000). A firm which exercises efficiency and effectiveness in logistics would always have the upper hand in minimising transaction and running costs leading to achievement of the lower cost objective (Das et al., 2000).

Control Theory of Performance Management System

Control theory of performance is based on the tradition of performance management which emphasises the concept of connecting and maximizing an individual or departmental performance with the overall performance of the organization. Aguinis (2011) defined performance management as an ongoing process of identifying, measuring and creating better performance in an organization. Superb performance can indeed be achieved by synchronizing individual's effort with the overall performance of an organization aimed at achieving the goals, mission and vision of the firm. In Aquinis's view, Control Theory of performance enables the management to manage organization's performance more effectively. Control Theory of performance among all other theories is very particular in maintaining performance management system given it specifies methods of controls between the organization and its internal systems. Decisions undertaken pertaining to the systems should be harmonised with the overall goals and objectives of the organization (Barrows & Neely, 2012). Control Theory of Performance emphasizes that controls must be exercised by all levels of an organization through which the expected performance can be achieved; performance measure mechanisms, behavioural control (norms and policies of an organization), or performance measurement mechanisms must be properly and thoroughly structured.

According to Barrows et al (2012) outcomes have to be in line with the objectives and goals of the organization. Theory of Performance is based on three traditions namely, behaviours control which requires employer to oversee and scrutinise behaviours of the personnel in accordance with the guidelines to be able to recompense commensurately, output control aimed at the performance of an employee which is restrained by either compensation or disapproving it after having taken necessary steps corresponding with the

standards set by the organization and lastly control system must be created geared towards identifying and enriching employee's performance through training. In the words of Krausert (2009) it is vital to obtain the competency expected of an employee to ascertain organization's growth and development.

Conceptual Framework

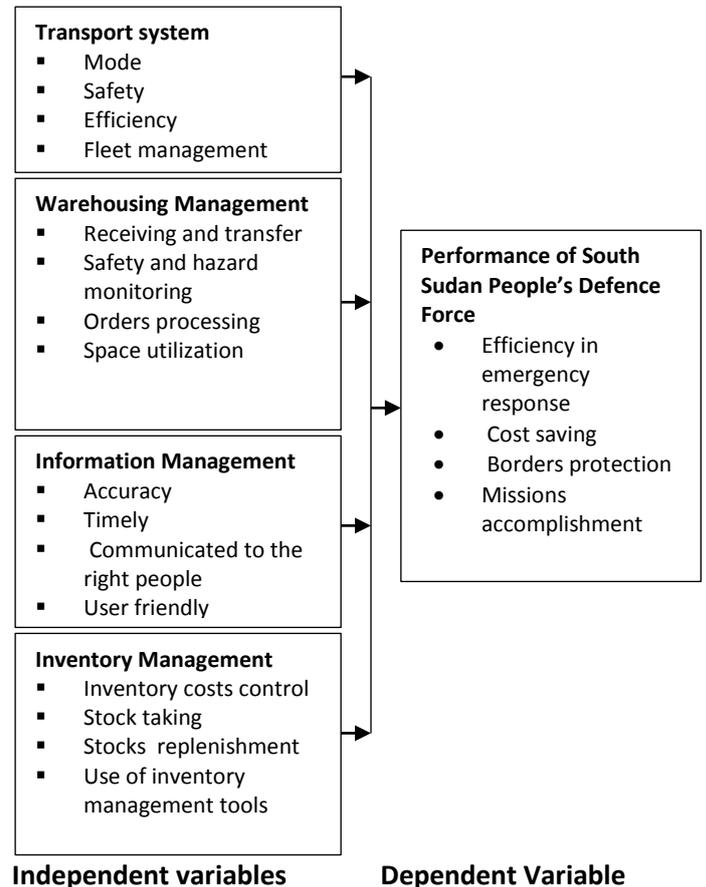


Figure 1: Conceptual Framework

Source: Author (2019)

Empirical Review

Transportation System

Transport is an integral part of logistics that requires good system to be put in place, elements such as mode, fleet manage and safety regulations, efficiency and cost have direct influence on transportation system. According to Chang (1998) transport constitutes 30% of the entire cost of logistical operations; almost matching against warehousing and inventory. Hedayat (2017) regards fuel management as a part of transport system whereby automated technology is used to pump

fuel or gaseous product providing real time visibility of all sorts of fuel management. Fuel management systems are geared towards monitoring, maintaining, controlling and managing fuel consumption and stock in the industry that uses modes such as road, air, rail and water in the ideal business world (Cochefski, 2015). The objective of managing fuel is meant to curbe wastages associated with fuel so that all sort of modes and fleet that cater for different operations are served adequately, failure to do so would stale operations of the firm. Technology has played very great role in managing transportation system, it is easy for the company to track and monitor the movement of vehicles which has in fact curtailed the ill behaviours of rouge drivers who could sometimes divert to other destinations to do their own business while on a mission wasting fuel of the company.

Kiraga (2014) did a study on transport management practices and Logistics performance of humanitarian organizations in Kenya using descriptive statistics. The study recommended that any traditional performance metric should demonstrates performance indicators in logistics chain, and must also entails finance and control mechanisms, differentiates between different levels in the organization and defines the link between logistics roles and their resolve to measure the outcomes. Misuko (2015) conducted a research on strategic inbound transportation management practices and performance of large –scale manufacturing firms in Kenya. The study discovered that carriers and forwarders selection, freight consolidation and optimization management practices were the most commonly used by major manufacturing firms in Kenya. In addition, the study also ascertained that technology integration management practices, strategic partnership practices, management practices and monitoring evaluation practices, preparation and execution of shipment were the least used by large manufacturing firms in Kenya. However the study found positive correlation between strategic

inbound practices and performance of large scale manufacturing firms in Nairobi County. Kipkorir researched on GPS tracking technology adoption in motor vehicle insurance sector in Kenya. The study established that not all the insurance companies apply GPS tracking system in Kenya, besides, it is only Lorries and trucks which are being tracked with exclusion of other saloon cars, an indication that GPS tracking system is being underutilised.

Warehousing Management

Green (2008) conducted a research on US firms on the impacts of warehousing Management on Organizational Performance in Supply Chain. The study established that success of firm performance was as a result of good warehousing management, manufacturing performance, future growth and introduction of new products. Rosenzwwweig (2000) evaluated the operational and warehousing performance in measuring manufacturing Performance of US firms targeting the aspects of quality, quantity, agility in delivering finished goods and inventory levels of work in progress performance. The study revealed that performance of warehousing had considerable impact on manufacturing capacity and firm’s goals. A research study conducted by Moore (2016) in India using cross-sectional research design revealed that complicated warehouse has negative bearing on planning and control of warehousing functions. Complicated warehouses have the disadvantage of limiting liaison with firm’s partners about the correct data required at the appropriate time; managing warehouse requires robust knowledge about the data and information regarding availability of products and process involved, and customers’ willingness to buy.

Nee (2014) researched on the influence of warehousing management on business performance in regional distribution centres using descriptive research design. The study established that warehousing management has considerable leverage on performance of firms in terms of operations and management strategies. Similarly Wambua (2015) conducted a research and it was

noted that warehousing management is important given the firm has to tackle inventory in that if issues arise in warehousing, it is likely to influence financial performance of the company as sales levels might decline. Mutai (2017) carried out a research on the influence of warehouse management on organizational productivity in Kenya Electricity Generating Company Limited. Descriptive research design was applied and the study found that stock control affected productivity of Kenya Electricity Generating Company Limited.

Information Management

Information has become a valuable and strategic tool be in corporate world or in government institutions, and therefore requires to be managed because it is upon which strategic decisions are made that may have influence on the firm. Ondieki (2009) carried out a research on contemporary issues in information management. His findings revealed that information management is faced by contemporary issues ranging from information society and society's knowledge to information management, knowledge management to professional competencies, skills and attitudes towards ICT and globalization of information services. He recommended that in light of these trends, managing information requires a change by re-engineering information profession.

Obura (2015) researched on the nature of ICT system used by Unilever using descriptive research technique. The study recommended that manufacturing companies should consider adopting modern communication equipment that would be helpful in securing effective information sharing and management. Jecpchumba and Noor (2015) researched on KCC and their study discovered that ICT had a positive impact on supply chain performance since it caused reduction in cost and lead time. Their conclusion was that the firm should adopt application of ICT which requires top management support to improve information management system that would be accommodative to suppliers' demands thus enhancing performance. Namagembe (2010) studied the link between

information sharing, inventory management and client satisfaction in the lower chain of Ugandan manufacturing firms, the study used descriptive research design targeting 2048 firms consisting of 1548 retailers and 503 distributors. The study recommended installation of information systems and customer collaboration as the means of guaranteeing better information sharing and inventory management.

Inventory Management

Managing inventory to balance between the costs related to inventory and meeting customers' requirements has become a major concern in the world. Kiplagat (2014) conducted a study on the role of inventory management on performance of manufacturing firms in Kenya. The findings were that keeping stocks and ordering costs have the potentiality of increasing performance of the firm; cost reduction motive orients employees towards achieving the objective of keeping inventory costs low so as to empower the organization with enough resources and adequately utilise them to achieve the profit and shareholder's objective. The study discovered also that inventory management systems, organizational development, information sharing and defined channels of organizational relationship influence performance of manufacturing firm.

Performance of South Sudan People's Defence Force

Organization's performance is defined by the accomplishment of its objectives and goals (Seba & Rowley, 2010). Performance of the military is judged by its effectiveness and efficiency in dealing with matters of security and emergency response in the event of natural disasters. Kuol (2012) examined performance efficiency of SPLA in combating cattle raids between Murle and Duk community of Bor. The study used descriptive research design focussing on the members of both counties. The study concluded there were deficiencies in the performance of SPLA largely to do with logistical inefficiencies giving pastoralists

upper hand to perpetuate series of cattle raids involving losses of lives and torching of the villages.

Mawien (2010) researched on SPLA capability in disarming civilians possessing illegal fire arms used for perpetuating cattle raids. Descriptive research design was used targeting greater Akop Payam. It was evidenced that SPLA didn't have the capacity to surprise civilians and cease illegal fire arms before they could get information and hide guns despite several attempts, these repetitive failures were also linked to logistical inefficiencies. In addition, the study also found that eight in ten from the members of Akop community do have more than one gun in that if one is disarmed, then the rest hidden under the ground are still at large and could still be used to perpetuate crimes such as cattle raids , inter-clan violent, theft of all sorts and revenge killings.

METHODOLOGY

Descriptive research design was applied in this study, reason being, it allowed the researcher to use own designed questionnaires to collect the required information from designated respondents. According to kinoti (2013) descriptive survey research design is a kind of work plan employed to

obtain information regarding the present position of the situation to explain what exists with regards to phenomenon being investigated. The target population were the Armed Forces of South Sudan based at the General Headquarters, a total of 400 men at random from whom the researcher narrowed down the number to 200 respondents for the purposes of accuracy. Questionnaires in Likert format and interview guides with variety of options for the respondents were used to collect primary data from various units of South Sudan People's Defence Force. SPSS version 20, statistical software suitable for social science studies was used to analyse the data. Below is the multiple linear regression model which was employed.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where,

Y = Performance

β_0 = Constant (coefficient of intercept)

X_1 = Transport system

X_2 = Warehousing Management

X_3 = Information Management

X_4 = Inventory Management

ϵ = Error Term;

β_1, \dots, β_4 = Regression Coefficient of four variables

FINDINGS

Table 1: Challenges of South Sudan People's Defence Force

Challenges	N	Mean	Std. Deviation
Limited number of troops to be deployed to all hot spots	190	1.4316	.52760
South Sudan People's Defence Force doesn't have logistical problems	190	1.6474	.56985
Inadequate or late supply of food items, and lack of medical facilities and medical personnel	190	3.2737	1.23821
Lack of military basic necessities (ammunitions, magazines, uniforms, boots, bullet proofs, helmets, and binoculars)	190	3.9368	.63096
Lack of, or limited number of crucial modern military hardware (armoured vehicles, transport planes , military trucks , machine guns, tanks, artillery, attack helicopters and jet fighters, rocket launchers and modern anti aircrafts)	190	4.8368	.60833
Valid N (list wise)	190		

This part sought to gauge logistical challenges facing South Sudan People's Defence Force. it was established that lack of or limited number of military hardware as the overriding challenge with the highest mean of 4.8368, standard deviation of

.60833. Lack of military basic necessities was also raised by the respondents as one the major logistical challenges facing South Sudan People's Defence Force with a mean of 3.9368, standard deviation of .63096. While on the other hand,

inadequate or late supply of food items, and lack of medical facilities and medical personnel was also found to be holding some amount of logistical

challenge with a mean of 3.2737, standard deviation of 1.23821.

Table 2: Effects of Logistical Inefficiencies on the Status Quo of South Sudan Military

Effects	N	Mean	Std. Deviation
Efficient response to matters of insecurity and emergencies	190	1.1632	.65845
Logistical inefficiencies have no effects on the status quo of South Sudan military	190	1.9368	.35068
Under equipping of the military resulting into gross underperformance in all aspects making the military unattractive	190	3.4158	1.17773
Late response to matters of security and emergencies	190	3.9263	.62135
Appalling military welfare in terms of starvation, death of soldiers from simple sicknesses and incidences of suicide due to frustration	190	4.9526	.25793
Valid N (list wise)	190		

The section sought to determine the effects of logistical inefficiencies on the status quo of South Sudan military. The aspect of appalling military welfare was found as the overriding challenge to the status quo of South Sudan military which represented the highest mean of 4.9526, standard deviation of .25793. Dire conditions were perceived to be dangerous as they might have caused starvation, death of soldiers from simple sickness, incidences of suicide due to frustration, and above all gross under performance be it in terms of military operations or rescue mission of civilians

struck by natural disaster. On the other hand, late response to matters of security and emergencies was also found to have significant effect on the status quo of South Sudan Soldiers, this represented the second highest mean of 3.9363, standard deviation of .62135. The element of underequipping of the military was also found to have at least some bearing on the status quo of South Sudan soldiers with a mean of 3.4158, standard deviation of 1.17773. However the other parameters were rated low by the respondents.

Table 3: Appropriate polices to Addressing Logistical Inefficiencies

Policies	N	Mean	Std. Deviation
Giving South Sudan People's Defence Force logistics function to foreign experts	190	1.0789	.47037
Reducing the size of the military	190	1.8842	.72540
Increment of military budget to improve on logistics	190	2.0947	1.24784
Contracting efficient, effective and trustworthy companies for military supplies, and incorporating retraining existing logistics personnel on efficient and effective logistics practices and considering changing current outdated logistics system	190	4.0263	.41702
Stemming out current endemic corruption in procurement and logistics system of South Sudan People's Defence Force by replacing and holding accountable culprits involved in corrupt procurement and logistics dealings, and Prohibiting generals from setting up their companies on pretence of being suppliers.	190	4.9421	.42640
Valid N (list wise)	190		

This part aimed at determining appropriate policies to addressing logistical inefficiencies in South Sudan military. Stemming out current endemic corruption which has riddled South Sudan military was highly

rated by respondents with a mean of 4.9421, standard deviation of .42640. Considering contracting effective, efficient and trustworthy companies for military supplies, and prohibiting

generals from forming their own inefficient or involving their friends' companies for supplies was ranked the second highest with a mean of 4.0263, standard deviation of .41702. However

respondents had low opinions on the other policy suggestions given they constitute the lowest means and standard deviations of 2.0947(1.24784), 1.8842(.72540), and 1.0789(.47037) respectively.

Table 4: Effects of Logistical Inefficiencies on the Morale of South Sudanese Soldiers

Effects on Morale	N	Mean	Std. Deviation
Their morale would still be high	190	1.2211	.47540
Soldiers do not need morale	190	1.6737	.48123
Demoralised soldiers may be used by greedy politicians to stage coups or Soldiers may themselves stage mutinies	190	2.5368	1.14375
Low morale may lead to indiscipline where soldiers may disobey their commanders and indulge themselves into acts such as alcoholism and looting civilians for survival	190	4.0053	.28167
Demoralised soldiers may lose patriotism unwilling to sacrifice for country's security and may vacate their outposts permitting encroachment on South Sudan's land by neighbouring countries	190	4.9895	.10233
Valid N (list wise)	190		

This section sought to determine the effects of logistical inefficiencies on the morale of south Sudanese soldiers. The study established the risk of soldiers losing patriotism who may be unwilling to sacrifice for the country with potential risk of deserting their outposts as the major consequence of demoralising soldiers which represented a mean of 4.9895, standard deviation of .10233. Potential risk of indiscipline by soldiers towards their

commanders and imminent danger of indulging themselves into alcoholism and abuse of civilians obtained second highest scores representing a mean of 4.0053, standard deviation of .28167. Unfortunately respondents' opinions on other parameters were low as they carry low approval ratings of 2.5368 (1.14375), 1.6737(48123) and 1.2211(.47540) respectively.

Table 5: Transport System

Transport	N	Mean	Std. Deviation
Frequent accidents due to inadequate training of the drivers	190	1.0789	.43532
Use of old trucks susceptible to breakdown in the middle of the journey	190	2.0684	.52509
Undeveloped road infrastructure not feasible during rainy season	190	3.2105	1.06800
Lack of, or limited number of military trucks and pickups poorly maintained and shortage of fuel due to misuse	190	3.9684	.48146
Lack of military cargo planes in South Sudanese Air Force for quick delivery of men and supplies to far garrisons	190	4.9421	.38739
Valid N (list wise)	190		

This part examined issues associated with South Sudan's military transport system given there could be no mobility of troops and supplies without proper transport system. Lack of cargo planes in South Sudanese Airforce was highly ranked among other attributes with a mean of 4.9421, standard deviation of .38739. Another issue that raised

eyebrows and as the second highly ranked was lack of, or limited number of military trucks and pickups poorly maintained and shortage of fuel due to misuse with a mean of 3.9684, standard deviation of .48146 respectively. Respondents also had strong opinions on the fact that road network is generally poor in South Sudan, no attention has ever been

given to road infrastructure, the approval rating constitutes a mean of 3.2105, standard deviation 1.06800. The least rated were the use of old truck with a mean of 2.0684, standard deviation .52509,

and frequent accidents allegedly linked with poorly trained drivers who tend to drive recklessly with a mean of 1.0789, standard deviation of .43532 respectively.

Table 6: Warehousing management

Warehousing management	N	Mean	Std. Deviation
Warehouses are equipped with CCT cameras to prohibit theft of items by rogue officers	190	1.1526	.55670
Space is economically utilised to avoid running out of space	190	1.9000	.34960
There is efficiency in order processing ,receiving and transferring of goods	190	2.5947	1.02816
Safety trainings are not frequently done to caution personnel in charge of the risks associated with warehousing management	190	3.9737	.29875
There is lack of safety audits and hazard monitoring	190	4.9632	.25965
Valid N (list wise)	190		

The study sought to determine the extent of warehousing management by South Sudan People's Defence Force. The findings revealed that lack of safety and hazard monitoring as the major challenge with a mean of 4.9632, standard

deviation .25965. On the same note, officers' lack of, or limited knowledge about the risks associated with warehousing management was the second highly rated challenge with a mean of 3.9737, standard deviation .29875.

Table 7: Information management

	N	Mean	Std. Deviation
South Sudan military manages information very well	190	1.1842	.66090
South Sudan military manages information fairly	190	2.0105	.42401
I have no idea how South Sudan military manages information	190	2.9158	.44037
South Sudan military has no proper polices with regards to information management	190	3.8211	.61685
South Sudan military poorly manages information	190	4.7737	.80760
Valid N (list wise)	190		

This section examined how information was being managed by South Sudan People's Defence Force. The study ascertained that information was being poorly managed by Sudan People's Defence Force as confirmed by majority of the respondents with a mean of 4.7737, standard deviation .80760. First of all there was little knowledge of the value of information when it comes to South Sudan military in the sense that there were no proper policies in place currently with regards to information

management; the aspect to do with which type of information was crucial or delicate and how it should be collected, analysed, stored, retrieved and protected from unauthorised persons was lacking. There was also an element of lack of proper tools for information collection neither were the personnel tasked with information management thoroughly trained to be able to work professionally where they could use various means if necessary.

Table 8: Information flow

Information Flow	N	Mean	Std. Deviation
Flow of information in the chain of command is very efficient	190	1.0368	.33128
Flow of information in the chain of command is fair	190	1.9947	.24119
Flow of information in the chain of command breaks down in the middle	190	2.7105	1.07664
Flow of information is in the chain of command is slow	190	4.0158	.43004

Flow of information in the chain of command is very slow	190	4.9316	.46068
Valid N (list wise)	190		

This section examined how efficiency or inefficient was the information flow in the Chain of Command of South Sudan People's Defence Force. It was found that flow of information in the chain of command was very slow representing a mean of 4.9316, standard deviation .46068, equally respondents had also highly rated flow of information as slow with a mean of 4.0158, standard deviation .43004, this indeed confirmed that much time was being wasted in between before information was fully circulated around to be acted upon, hence late decision making. However the other perceptions on information flow were rated low as reflected by low means and standard deviations of 2.7105(1.07664), 1.9947(.24119), and 1.0368(.33128) respectively.

Table 9: Reasons for slow Information Dissemination in South Sudan Army

Reasons for Slow Dissemination	N	Mean	Std. Deviation
Information flow is slow because no one cares about the value of information	190	2.1526	1.76169
Information flow is slow because no common medium of communication	190	2.1000	.79383
Information flow is slow because of the breakup of communication channels and misunderstandings between SPLA's Proper commanders and integrated militias' commanders	190	3.7000	1.43998
Information flow is inefficient because personnel in charge of disseminating information in various units have little level of literacy and not well trained on communication equipment	190	4.0474	.67680
Information flow is slow because of poor communication equipment only radio communication is still being used sometimes affected by weather conditions as opposed to incorporating ITC	190	5.1526	3.68076
Valid N (list wise)	190		

This part gauged the reasons as to why information dissemination was slow in South Sudan army. The overriding argument as to why flow of information was slow in the chain of command had been the existential use of outdated radio communication equipment vulnerable to weather conditions as opposed to integrating modern electronic communication equipment, this represents a mean of 5.1526, standard deviation of 3.68076. On the other hand, lack of, or little knowhow on the few existing communication equipment by officers tasked to operating them was also widely rated with a mean of 4.0474, standard deviation .67680. Breakdown of communication channels between the Mother SPLA's commanders and militias' commanders, and deepening mistrust was cited considerably with a mean of 3.7000, standard deviation 1.43998.

Table 10: Inventory Management

Inventory	N	Mean	Std. Deviation
Stock taking is done at the end of the month to determine stocks levels	190	1.0579	.35903
Balancing inventory is not an issue to the military	190	1.9632	.25965
Inventory is carefully replenished to strike a balance between inventory holding costs due to excessive stocks and the requirement of ensuring certain level of essential military supplies is maintained	190	2.1526	.88064
Inventory management tools are being used to properly manage inventory	190	4.0053	.12588

South Sudan military does not use inventory management tools resulting to poor inventory management	190	4.9947	.07255
Valid N (list wise)	190		

This section enquired to determine South Sudan's military knowledge in inventory management. The study found that capacity of good inventory management was lacking in South Sudan Military, this constituted a mean of 4.9947, standard deviation .07255. There was no question that inventory management tools were not used resulting into poor inventory management, and with this, there was no doubt that performance of South Sudan People's Defence Force was impacted by inventory nightmares associated with poor inventory management.

Table 11: Effects of Poor Transport System on Operations of South Sudan Military

Effects of Poor Transport System	N	Mean	Std. Deviation
South Sudan soldiers are used to trekking for long distances, hence lacking proper means of transport isn't an effect to their performance	190	1.1263	.41766
No poor performance has ever been reported with regards to operations due to lack of good transport system	190	1.8842	.32082
Short life span of military vehicles due to poor maintenance causing the need to rebuy new fleets increasing unstained budget	190	3.2684	1.05738
Delays of the reinforcement leaving men on the ground at the disposal of the enemy and other conditions	190	3.9053	.46174
Slow delivery of military supplies causing shortages at the battle field grounding operations and affecting morale of soldiers to sacrifice for national security	190	4.9421	.43863
Valid N (list wise)	190		

This part sought to find out the effects of poor transport system on operations of South Sudan People's Defence Force. The findings established that delays in delivery of supplies as the major effect of poor South Sudanese military transport system with a mean of 4.9421, standard deviation .43863 which could potentially provoke acute shortages of necessary supplies. This would of course had severe effects on performance be it in the event of typical military operations or emergency response involving natural calamities where a large chunk of affected population might seek immediate rescue. In a typical military operations, reinforcement was so crucial, failure to which could expose men to the extinction from the enemy. Respondents' opinions were also strong about the potential delays of reinforcement that could be caused by poor military transport system as the second attribute highly ranked with a mean of 3.9053, standard deviation .46174. The aspect of short life span of military trucks owing to poor maintenance also received considerable ranking with a mean of 3.2684, standard deviation 1.05738. Unfortunately respondents either strongly disagreed or disagreed with the other suggestions given their means and standard deviations were low, 1.8842(.32082) and 1.1263 (.41766) respectively.

Table 12: Impacts of Poor warehousing Management on Performance of Military

Impacts of poor warehousing	N	Mean	Std. Deviation
No impact of poor warehousing management on performance of south Sudan People's Defence Force in safeguarding national security and responding to emergencies	190	1.0895	.47963
Problem of redundancy and excessive handling	190	2.0263	.37704
Sickness and death of soldiers due to consumption of expired or contaminated goods resulting into decrease in numbers, hence lowering performance	190	2.5211	.97973

Waste of time in processing orders and receiving new supplies, and difficulty in picking items during transfer due to poor utilization of space and cube , thus affecting efficiency	190	3.9947	.31702
Risk of losing the entire stocks to fire due to unprofessional storage of flammables with consumable goods	190	4.9421	.42640
Valid N (list wise)	190		

The intention of this section was to determine the effects of poor warehousing management on performance of South Sudan People’s Defence Force. Potential risk of losing the entire stock to fire was found as the imminent danger due to unprofessional storage of inflammables with consumable goods, this represents a mean of 4.9421, standard deviation .42640. South Sudan’s military warehouses and stores have had the incidents of arsenal where the entire stock could be lost to fire affecting the normal flow of supplies putting operations on halt as well as negatively impacting on other military projects because of the need to rebuild burned warehouses and stores as

well as repurchasing goods in order to maintain the required stock levels which involves resources and time. Owing to mismanagement of South Sudanese military warehouses and stores characterised by lack of checks and balances, rogue officers in charge do remove items for personal use without approval hence compounding dilemmas for South Sudan military. Again respondents were concerned about waste of time and delays in orders processing and receiving new supplies, difficulty in picking items during transfer due to misuse of space as having effect on efficiency, this represents the second highest mean of 3.9947, standard deviation .31702.

Table 13: Implications of Slow Information Dissemination on Military Response

Implications of slow information flow	N	Mean	Std. Deviation
Delaying information dissemination does not affect national security and so does responding to emergencies	190	1.0842	.46378
Holding information allows better understanding of the situation before responding	190	1.9895	.42401
Soldiers may decide to desert their deployment	190	2.5105	1.22037
Exposure of soldiers to extinction from the enemy as incursions might occur at particular outpost without the knowledge of the high command at the headquarters	190	3.9895	.42401
Late response to emergencies and slow dissemination of essential orders to various division and units from the headquarters pertaining to slow dissemination of the information putting in doubt the readiness of the military	190	4.8895	.61152
Valid N (list wise)	190		

Prior to investigating the implications of delaying information on the performance of South Sudan People’s Defence Force in responding to matters of security and natural calamities. It was established that late response to emergencies and slow dissemination of crucial information to the general headquarters as the potential implication that could be caused by delaying information evidenced by a mean of 4.8895, standard deviation .61152. The study also discovered that delaying information could also result into heavy losses in the event of incursion at the outpost given general headquarters

won’t have clue of what is going on to be able to reinforce, this constitutes a mean of 3.9895, standard deviation .42401. Nonetheless, respondents voiced their concerns about the risk of outposts being deserted by their colleagues, this constitutes a mean of 2.5105, standard deviation 1.22037 respectively. And as for the other attributes, respondents either strongly disagreed or disagreed as evidenced by low approval rating of mean 1.9895(Std.42401) and 1.0842(Std .46378) accordingly.

Table 14: Risks of Poor Inventory Management on performance of South Sudan Army

Risks of poor Inventory Management	N	Mean	Std. Deviation
Better knowledge of stock levels	190	1.0684	.34203
Good vendor management	190	2.0053	.34881
Risk of overstocking least demanded goods at the expense of low demanded goods due to lack of proper inventory management knowledge	190	2.8105	1.12494
Insufficient supplies due to late updating of suppliers causing deficiencies on the performance	190	4.0632	.40657
Unstained inventory costs affecting the budget thus impacting on vital military roles	190	4.9421	.34398
Valid N (list wise)	190		

This part examined the impacts of poor inventory management on performance of South Sudan People's Defence Force. As evidenced by the highest mean of 4.9421, standard deviation .34398, the investigation found that poor inventory management could lead to unstained inventory costs which could have negative bearing on the

performance of South Sudan People's Defence Force. The aspect of imminent danger of experiencing acute shortages of essential supplies was also ranked highly as evidenced by a mean of 4.0632, standard deviation .40657 which can as well negatively impact performance because there is no way starving and demoralised soldiers can perform as expected.

Table 15: Performance Efficiency of South Sudan People's Defence Force

	N	Mean	Std. Deviation
Very efficient	190	1.3947	.51122
Efficient	190	2.0053	.46573
Neutral	190	2.7316	.64779
Inefficient	190	3.8947	.38418
Very inefficient	190	4.8105	.47797
Valid N (list wise)	190		

This section examined performance efficiency of South Sudan People's Defence Force. On the contrary, the study had instead established the existence of enormous inefficiencies on the

performance of South Sudan People's Defence Force as confirmed by majority of the respondents with a mean of 4.8105, standard deviation .47797.

Table 16: Control of Cost of Operations of South Sudan People's Defence Force

	N	Mean	Std. Deviation
Largest extend	190	1.2105	.70365
Larger extend	190	1.9158	.31415
Moderate extent	190	2.8316	.52760
Less extent	190	3.9789	.27135
Least extent	190	4.9263	.26195
Valid N (list wise)	190		

This part looked into the extent to which costs of operations were being controlled by South Sudan People's Defence Force. The study discovered control of costs related to operations to be at the least extent as confirmed by majority of the respondents with a mean of 4.9263, standard

deviation .226195. This was an indication that there were no proper mechanisms to controlling costs of operations by South Sudan People's Defence Force and if there is a policy in place, then its results are not satisfactory.

Table 17: Borders protection

	N	Mean	Std. Deviation
South Sudan military has fully protected South Sudan borders	190	1.9474	.33707
South Sudan military has only managed to protect a few borders	190	2.7579	.63772
I don't know whether South Sudan military has fully protected the borders	190	2.6247	.42318
Little regards is paid to borders protection	190	3.6737	.84129
South Sudan military has failed miserably to protect the borders due to logistical problems and poor deployment	190	4.5684	1.14229
Valid N (list wise)	190		

This section examined South Sudan People's Defence Force capacity to protect the borders of South Sudan. Sadly, the study revealed that South Sudan People's Defence Force had miserably failed to protect South Sudan's borders as confirmed by the majority of the respondent of with a mean of 4.5684, standard deviation of 1.14229. Indeed South Sudan military had failed to hold the original borders of Sudan when the country was still undivided, a lot had happened evidenced by encroachments seen following secession of South Sudan from the North, by then, those areas which were liberated from the Sudan Government are currently occupied by foreign troops. Some parts of Eastern and Central Equatoria have been occupied (Wagwi, Nadapa, Morobo), the same applies to Anyuak land close to the border of Ethiopia, Greater Bhar el ghazal is also not immune to annexation;

some parts of Western Bhar el ghazal, Norther Bhar elghazal as well as some areas in Upper Nile are under our former adversary. What is funny about these areas is that they are rich in minerals such as gold, copper, mercury, uranium among others, and with that our neighbours are desperately in need to lay their hands on these minerals. What promoted these waves of encroachments is due to poor deployment given soldiers who have no knowledge about the geography and maps of the country are being deployed at the borders who could at times withdraw without orders when faced by situations related to security and logistics, such behaviour allowed foreign troops to occupy such places as long as they are along the borders and then later on attached some historical claims that do not actually exist.

Table 18: Accomplishment of Military Missions

	N	Mean	Std. Deviation
Optimising military logistics won't at all help to accomplish military missions	190	1.0947	.46174
Optimising logistics can increase military budget with less accomplishment of missions	190	2.0053	.24119
I don't know if optimising military logistics can help achieve military missions	190	2.9842	.28127
Optimising logistics can help to accomplish military missions	190	3.9053	.46174
Optimising logistics can greatly help achieve military missions	190	4.8895	.53787
Valid N (list wise)	190		

The study sought to examine whether optimising logistics would increase the chances of South Sudan People's Defence Force resolve in accomplishing

missions. Majority of the respondents with a mean of 4.8895, standard deviation.53787 concurred with the view that optimising logistics would greatly lead to achieving vital military missions.

Correlation Analysis

Table 19: Summary of Pearson Correlation

		Performance	Transport System	Warehousing Management	Information Management	Inventory Management
Performance	Pearson Correlation	1	.322**	.444**	.325**	.224**
	Sig. (2-tailed)		.000	.000	.000	.002
	N	190	190	190	190	190
Transport system	Pearson Correlation	.322**	1	.092	.161*	-.019
	Sig. (2-tailed)	.000		.206	.026	.790
	N	190	190	190	190	190
Warehousing management	Pearson Correlation	.444**	.092	1	.064	-.001
	Sig. (2-tailed)	.000	.206		.380	.985
	N	190	190	190	190	190
Information Management	Pearson Correlation	.325**	.161*	.064	1	-.076
	Sig. (2-tailed)	.000	.026	.380		.300
	N	190	190	190	190	190
Inventory Management	Pearson Correlation	.224**	-.019	-.001	-.076	1
	Sig. (2-tailed)	.002	.790	.985	.300	
	N	190	190	190	190	190

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

Table 20: Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.846 ^a	.716	.524	.53254

a. Predictors: (Constant), Inventory management ,Warehousing Management ,Transport system, Information Management

b. Dependent variable: Performance of South Sudan People's Defence Force.

Table 21: Analysis of Variance ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	35.686	4	8.921	31.458	.00 ^b
	Residual	52.467	186	.284		
	Total	88.153	190			

a. Independent Variable: Performance of South Sudan People's Defence Force

b. Predictors: (Constant), Inventory management, Warehousing Management, Transport system and Information Management.

Table 22: Coefficients of Determination

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.312	.288		1.081	.281
Transport System	.219	.052	.245	4.241	.000
Warehousing Management	.386	.054	.404	7.092	.000
Information Management	.236	.049	.278	4.820	.000

Inventory Management	.277	.063	.250	4.398	.000
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Dependent variable: Performance of South Sudan People's Defence Force

CONCLUSION

The intention was to determine how optimising logistics would influence performance of South Sudan People's Defence Force, four logistics indicators were picked for the study namely transport system, warehousing management, information management and inventory management. The study has ascertained some degree of relationship between all variables, this is evidenced by the fact that having examined correlation between the main variable (performance) and the four logistics indicators (independent variables) picked for this study, the statistical results were all positive, an indication that independent variables have significant correlation with the main variable. This implies optimising logistics would greatly improve performance of south Sudan People's Defence Force be it in combat situations or emergency response owing to natural calamities. The study has also found some flaws in logistics system of South Sudan People's Defence Force that need to be addressed, failure to do so, the required level of performance as expected of a conventional army won't be achieved.

RECOMMENDATIONS

Poor transport system should be addressed by buying more military cargo aircrafts such as Alenia C-27J Spartan, Kawasaki C-1, Antonov An-12, Lockheed Martin C-130J Super Hercules, Boeing C-17, Antonov An-22, Lockheed C-5 Galaxy, Ilyushin Il-76, Antonov An-24 and Boeing KC-10, these large type of aircrafts have the capacity and are efficient for deploying thousands of troops and delivering enough supplies to long distances. There is also a need for South Sudan Army to refill its fleet with new vehicles designed specifically for bad terrain. Misuse of fuel has also been another problem, some crooks within the military have been stealing fuel and then sell it to traders. This should be

stopped by making sure that checks and balances are introduced.

There is also a real need to introduce better warehousing management practices that will ensure safety of stocks, efficiency in order processing, efficiency in receiving, efficiency in transfer and economic use of space. Measures that should be taken include building good warehouses and stores with proper roofing as well as good ventilation to improve storage conditions for goods be it during rainy season or dry season and must be fitted with CCTV cameras, RFID (radio frequency identification) and bar coding for security purposes and easy identification of goods during transfer. Safety trainings and safety audits should be introduced and hazard monitoring be conducted quiet often to caution officers in charge of warehouses and stores about the dangers associated with storing consumable items with flammables without due care; officers in charge should be made aware of the risks associated with such practices.

With regards to information management, delays in collection and dissemination of information between divisions, units and the general headquarters has been evidenced which hampers coordination and rapid response in the event of insecurity and natural calamities leading to late decision making when a lot has already happened. This menace should be dealt with by buying efficient and reliable modern military communication equipment not susceptible to interception by enemies and weather conditions as it is the case with the existing communication equipment still being used by South Sudan People's Defence Force. Officers who deal with information should also be trained not only on how to collect, analyse, manage and share information but also on modern communication equipment and should be made aware about the value of information.

There had also been lack of cooperation quite often among the members of South Sudan Army, reason being mistrusts, disloyalty and an undefined chain of command, the army is composed of SPLA Proper, tribal militias and former collaborators who were South Sudanese but were fighting alongside Sudan Army, these different groups fiercely fought each other for years and thus hate and mistrust each other; they profile themselves along those lines and their ideals are totally different. With that degree of lack of teamwork, flow of information and execution of orders stuck at some point causing logistical nightmares and inefficiencies, there is a real need to retrain and indoctrinate those various groups so that their allegiances are streamlined, this would minimize wastages, delays and lack of cooperation and coordination perpetuated intentionally in order to sabotage any mission that the military intends to undertake thus negatively impacting operations.

Therefore this study recommended that only a limited number from different factions including those who were part and parcel of South Sudan Army before the incident of 2013 should be integrated into SSPDF in an organized manner, this would chart the way forward to addressing logistical challenges given resources which are overstretched at the movement will be used on one unified army. Peaceful resolution of the conflict is required that would pave the way for lasting peace, thereafter transformation of the military can take effect. There is also a need for restructuring of the top leadership of SSPDF through creation of strong command beginning from Chief of General Staff and six deputies to the chief of general Staff to be in charge of the directorates of Administration, Military Intelligent, Operations, Procurement and Logistics, Political and Moral Orientation, Training and Research because majority of the existing commanders seem to be incompetence.

South Sudan Military is marked by high cost of operations and inadequacy or late delivery of supplies which leaves soldiers at the mercy of hunger and all sorts of conditions, reasons have

been lack of proper inventory management levels, late order processing and embezzlement of funds for personal use by corrupt officers rather than for crucial supplies for the military. South Sudan Army should adopt modern logistics practices undertaken by conventionalized militaries of the world, inventory management software and techniques should be incorporated in their logistics management system; inventory management tools such as MRP (Material Resource Planning), MRP2 and Inventory management techniques such as ABC Analysis, High, Medium and Low Classification, VED Classification, SDE Classification, FSN Classification, SOS Analysis, XYZ Analysis and Golf Analysis are very important for better planning and management of resources and doing away with difficulties associated with inventory management entirely.

There had been also the element of awarding contracts to either generals' ghost companies or friends' companies by some rouge characters within the military, this tendency has been backfiring in terms of lack of, or inadequate supplies given non or little is delivered in the end while money has already been dished out, this prompts requesting for more budget to buy the much needed supplies resulting into depletion of the budget before the next financial year and that has been how military spending has been rocking government's coffers as a wild fire. Therefore, this study recommends that procurement processes with regards to South Sudan People's Defence Force supplies be done transparently based on merits, a committee composed of procurement professionals should be formed to be looking into issues of contracts award whose activities must be overseen by military intelligent and NISS to tame folks from playing with military's funds. Companies that happen to be awarded with contracts must be assessed in terms of their financial background, capacity, capability, quality, management commitment and process equipment.

Another important point is the need to improve the air force, building formidable air force is part of the

strength of the military, we have had incidences in which our airspace was not only violated on several occasions but our civilians were as well bombed by foreign jetfighters in Upper Nile, Northern Bhar el Ghazal and Western Bhar el Ghazal. Therefore, it was recommended that the government of South Sudan should acquire mixed multi role fighters, the likes of Dassault Rafale, SAAB JAs-39 Gripen, F-16 Eagle, F-18 Hornet, F-35 Joint fighter, F-22 Raptors, MQ-9 Reaper, B-52 Spirit Bomber, Su-25, Sukhoi-33, Su-35, Mig-29 Fulcrum and Mig-31, and Euro Typhoon. This defence strategy should also include acquiring modern attack helicopters such as Z-10, MI-24 Hind, Denel AH-2 Rooivalk, Bell AH-1W Super Cobra, Augusta A-129, Eurocopter Tiger, MI-28H Harvoc, Kamov Ka-52 Hokum-B, Bell AH-1Z Viper and Boeing AH-64 Apache, if this goal is achieved, then it would be an advantage for national Defence because our armed forces' capabilities would have been boosted. We also ought to build strong air defence system to protect our airspace, South Sudan's airspace has been violated several times which could have been deterred if we had modern tools and the knowhow, acquiring S-400 and other batteries would be of great importance, this defence policy can be achieved by having multiple

defence cooperation and alliances with super powers.

Areas of Further Study

This research was a continuous process and so does institutional capacity building. More studies need to be done to come up with fresh perspectives on the causes of weak logistics system of South Sudan People's Defence Force given some weakness had been identified by this study. There is also a need to determine the impacts of logistics on transformation of South Sudan People's Defence Force, it is a tradition that every state must conventionalise their armed forces and align themselves with changes that the world presents every day. We are living in a world beset by technology, conflicts and natural calamities, these dynamics require countries to pull-up their socks in boosting capacity of their armed forces; South Sudan is not immune to these challenges. Relationship between logistics and training and how it influences performance of South Sudan People's Defence Force is also another interesting area. We also sought to look into the appropriate policies to address poor logistics practices in order to improve performance of South Sudan People's Defence Force in terms of safeguarding national security and better response to emergency.

REFERENCES

- Allan, C., Phil, C. & Peter, B. (2009). *The Hand Book of Logistics and Distribution Management*. London: Kogan page.
- Arajan, J. & Van, W. (2010). *Purchasing and supply Chain Management: Analysis, Strategy Planning and Practice*. London: Cengage learning EMEA.
- Armstrong, M. & Baron, A. (2009). *Performance Management: A strategic and Integrated Approach to achieve Success: Mumbai*. Jaico Publishing House.
- Bailey, P., Farmer, D., Jessop D & Jones, D. (2010). *Procurement Principle and Management*. Mumbai: Dorling Kindersley.
- Bangol, A. (2015). *The New Dawn*. Juba. Bangol Books.
- Benton, W. (2013). *Purchasing and Supply chain Management*. New York. McGraw-Hill.
- Browsersox, D., David, J. & Bixby, M. (2008). *Supply Chain Logistics Management*: London McGraw-Hill.
- Chopra, S., Meidl, P. & Karla, D. (2007). *Supply Chain Management: Strategy, Planning and Operation*. New York: Pearson.

- Christophe, M. (2005). *Logistics and Supply chain Management: Creating value – Adding Network*: London. Pearson.
- Christopher, M. (2011). *Logistics and Supply Chain Management: Strategies for Reducing Cost and Improving Service*. New Delhi: Pearson.
- Damaris, W. & Mwangi, P. (2014). Influence of Logistics Management on Supply chain Performance in Retail Chains Stores in Kenya: A Case of Nakumat Holdings Limited. *The strategic Journal of Business and Change Management*, 4(2), 7-8.
- David, A. Taylor (2009). *Supply Chains Manager Guide*. New Delhi, Dorling Kindersely.
- David, B. & Sheila, L. (2010). *Supply Chain Management*: London, McGraw- Hill.
- Dennis, M. (2005). *Comprehensive Peace Agreement*. Berlin: German Institute for International and Security Affairs.
- Edward, M. Kelly (1993). *The US Military and Disaster Response*. Washington DC: US Military.
- Gichane, S. (2018). *Influence of Electronic Business Practices of the Performance of Supper Markets in Nairobi County*. Nairobi: unpublished student project, Jomo Kenyatta University of Agriculture and Technology. Retrieved from <http://www.jkuat.ac.ke>.
- Giir, B. (2011). *Celebrating the Independence of South Sudan*. Juba, Mignic Technologies.
- Gupta, A. K. (2012). *Management Information System*. New Delhi: SChand and Company.
- Hume, k. (2003). *Sudan Oil and Human Rights*. Washington Dc, Human Rights Watch Dog.
- James, A. Champy (2000). *Accelerated Logistics: Streamlining the Army Supply chain*. New York. Pearson.
- James, Y. (2006). *In Between War & Peace in Sudan & Sri Lanka: Deprivation & Livelihood*. Oxford University Press.
- John, M. (2018). *Influence of Logistics Management on Distribution Performance on Fast Moving consumer Goods in Nairobi City County*. Nairobi: Unpublished Student Project, Jomo Kenyatta University of Agriculture and Technology. Retrieved from <http://www.jkuat.ac.ke>.
- John, T. (2009). *Supply Chain Management: Jejeshar Singh for Response*. New Delhi: Books & Chairman Enterprise.
- Johnson, D. (2003). *The Root Causes of Sudan Civil Wars*. Kampala: Fountain Publishers.
- Keen, D. Stewart, F. & Fitzgerald, V. (2000). *Sudan Conflict and Rationality in War, and Underdevelopment Country Experiences*. London, Oxford University Press.
- Kicpchumba, V. (2018). *Determinants of Inventory Control Systems Implementation in the manufacturing Industries in Kenya: A case of Study of East Africa Packaging Industries Limited*: Nairobi. Unpolished student project, Jomo Kenyatta University of Agriculture and Technology. Retrieved from <http://www.jkuat.ac.ke>
- Koskela, L. & Vrijhoef, R. (2000). The Prevalent Theory of Construction is a Hindrance for Innovation in Proceedings of International Groups for Lean Construction 8th Annual Conference
- Kuol, M. (2012). *Performance Efficiency of SPLA in Combating Cattle Raids between Murle and Duk community of Bor*. Juba. Unpublished student project, University of Juba.

- Lysons, K. & Farrington, B. (2006). *Purchasing and Supply Chain Management*. London. Pearson.
- Lysons, K. & Gillingham M. (2003). *Purchasing and Supply Chain Management*. New Delhi Pearson.
- Magutu, O., Bitange, R. & Mochari, G. (2010). Achieving Successful Information Management through Effective Information Quality Management IQM Banking Services: Perspective from Commercial Banks in Kenya. *African Journal of Business and Management* 1(2010), 98-99.
- Malconm,S.(1997). *Strategic Purchasing and Supply & Supply Chain Management*. London. Pearsons.
- Martin, C. (2011). *Logistics and Supply chain Management: Strategies for Reducing Cost and Improving Service*. London, Pearson.
- Mawien, D. (2010). *Determining Capability of SPLA to Disarm Civilians Possessing Illegal Fire Arms: A Case of Greater Akop Payam*. Wau: Unpublished student thesis University of Bhar el ghazal.
- Mbogo, Y. (2006). Oil Disputes Raise Tension among Southern Sudan Factions, Global Policy Forum. 26 September. Retrieved from <http://www.globalpolicy.org/security/issues/sudan/2006/0926oil.htm> (accessed 11 February 2008).
- Morgon, J. (2011). War Feeding War: The impact of Logistics on Napoleonic on Occupation of Catalonia. *Journal of Military History*, 7(6)83-116.
- Mutisya, P. (2013). *Information Security Management in Public Universities in Kenya: A Gap Analysis between Common Practices and Industry Best Practices*. Retrieve from [http:// repository.uonbi.ac.ke](http://repository.uonbi.ac.ke).
- Mwape, F.,and Ndiokubwayo, R.(2010) .Uptake and Utilization in the Zambian Construction Industry Proceedings 5th Built environmental Conference 18-20 July Information and Communication Technology. Durban , South Africa.
- Myers, L. (2013). Eliminating the Iron Mountain: Army Logistician. *Journal of military History* 7,(2)56-75.
- Obrien, J & Marakas, G. (2010). *Introduction to Information Management Systems*. New York, McGrill-Hill.
- Ondieki, M. (2009).Contemporary Issues in Information Management: Fresh Look for Information Professionals. *International Journal of Library and Information Science*, 1(6), 82-91.
- Otieno, G. & Noor, S. (2014). Factors Affecting Logistics Support in Military Operation: Case of Kenya Defence Forces. *International Academic Journal of Procurement and Supply Chain Management* 1(3)1-11).
- Patrik, J. (2008). *Logistics and Supply Chain Management*. London: McGraw-Hill.
- Raghuram, G. & Rangaraj N. (2010). *Logistics and Supply Chain Management, Cases and Concept*. New Delhi: Macmillan Publishers.
- Rajan, p. (2016).Issues and Challenges of Supply chain Management in FMCG sector in India. *International Journal of Interdisciplinary studies*, 1(3), 1-14.
- Rolandsen, Ø. H. (2007). From Guerrilla Movement to Political Party: Restructuring the Sudan People's Liberation Movement. Oslo: International Peace Research Institute.
- Saleemi, N.A (2012). *Purchasing and Supply Chain Management*. Nairobi, Saleemi Publications.
- Saxena, A. & Kaaushik, S. (2008). *Logistics and Supply Chain Management: Text & Cases*. New Delhi: Jaico Publishing House.

- Shah, J. (2009). *Supply Chain Management: Texts and Cases*. London, Pearson.
- Shines, T. (2013). *Supply Chain Strategies: Demand Driven and customer focused*. Routledge, New York. Taylor and Francis Group.
- Simchi D. Levi, Kaminsky.P & Sankar R. (2008). *Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies*. New, McGraw-Hill.
- Sobhani,M. Malarvizi, C.A, Mamun ,A. & Jeyashree, S.(2014).Strategic procurement and Financial Performance of Iranian Manufacturing Companies. *Asian social Science*, 10(1), 250-286.
- Sople, V.v. (2010). *Logistics Management*. Mumbai, Dorling Kindersley.
- Suliman, M. (1998). *Resource Access, a Major Cause of Armed Conflict in Sudan: The Case of the Nuba Mountains*. International Workshop on Community-Based Natural Resource Management. Washington DC, 10-14 May.
- Sundnes, F. & Shanmugaratnam, N. (2008). *Socio-economic Revival and Emerging Issues Related to Land and Customary Institutions in Yirol, Southern Sudan*. African Academic Press.
- Sunil, C. Meindl, P. & Kalra, D. (2009). *Supply Chain Management: strategy planning and operations*. Mumbai, Taj Press.
- Sunil, M., Narayan, M. & Sambamburth (2011).How Inform Management Capability Influences Firm Performance. *MIS Quarterly* (35), 1-2, University of Maryland, Singapore Management University & Michigan State University. Google Scholar.
- Tanner, Jr., Honeycutt, Jr. & Ereffmeyer, R. (2009). *Sales Management: Shaping Future Sale Leaders*. New Delhi: Dorling Kindersley
- Torbet, M. & Zoe, S. (2017). *Smart Logistics for Future Armed Forces*. Brussel: European Union Institute for Security Studies.
- Waithaka, G.w (2015).Lean procurement Practices and Supply Chain Performance of Fast Moving Consumer Goods firms in Kenya. Retrieve from [http:// repository.uonbi.ac.ke](http://repository.uonbi.ac.ke)
- Ward, J & Peppard (2009).*Strategic planning for Information Systems*. Ottawa, John Willey and Sons.
- Wawuda, J. (2018). *Influence of information communication Technology on Performance of Procurement among Parastals in Kenya*. Unpublished Student Project. Jomo Kenyatta University of Agriculture and Technology. Retrieved from [http.www.jkuat.ac.ke](http://www.jkuat.ac.ke).
- Wihtol, Y. (2012). *Transport Efficiency through Logistics Development*. Mumbai: Macmillan Publishers.