INFLUENCE OF COST-SHARING ON ACCESS AND STUDENTS'ACADEMIC PARTICIPATION IN SOUTH SUDAN PUBLIC UNIVERSITIES

BY

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DECLARATION

This dissertation is my original work and has never been presented for a degree or any other academic award in this or any other university.

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DEDICATION

I dedicate this dissertation to my only sister Mrs. Hellen Aya Oywak, who despite her recovery from a life threatening illness took up the challenge to raise funds to support my Ph.D. dream.

ABSTRACT

Students are affected by many factors when making decision to apply and attend public universities in South Sudan. One of the most important factors is cost. South Sudan government introduced cost-sharing policy without any financial provision to cushion students from low-income families. The purpose of the study was to establish the influence of cost-sharing on access and students' academic participation in South Sudan public universities. The study was guided by six research questions and four hypotheses. Convergent parallel mixed method research design was used to collect and analyze data separately but converge the results in the interpretation. A total of 378 students were selected through random sampling procedure, four parents through snowballing technique and six members of the National Council for Higher Education, four university administrators, and two food contractors through purposive sampling technique. Questionnaire was used as the primary data collection instruments in quantitative strand while interview, observation and document analysis guides, respectively were used in qualitative strand. Descriptive statistics such as frequencies, percentage and mean were used to summarize quantitative data, while inferential statistic, a one-sample t-test, was used to determine whether the sample mean is statistically different from the hypothesized population mean. Qualitative data was collected and analyzed simultaneously and categorized into themes pattern. The results indicated that enrollment increased despite the introduction of cost-sharing policy, political instability and the rising cost of living due to inflation. The study also found that the current policy favors students from privileged backgrounds as a substantial proportion of students from low-income families do not participate due to affordability issues. The study recommends that the government fast-tracks peace and re-engineers the education system to make public universities more accessible, affordable and equitable to all. This study is expected to contribute towards improving policy and practice in educational administration and planning.

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ACRONYMS AND ABBREVIATIONS

AECID	La Agencia Española de Cooperación Internacional para el Desarrollo
AFD	France International Development Agency
AMISSOM	African Union Mission in Somalia
AU	African Union
CESA	Continental Education Strategy for Africa
CSP	Cost-sharing Policy
DFID	Department for International Development
DJGMUST	Dr. John Garang Memorial University of Science and Technology
FAO	Food and Agricultural Organization
FCVC	Fragile, Conflict and Violent Contexts
FNT	Financial Nexus Theory
FPL	Fixed repayment loan (mortgage loan)
FWS	Federal Work-Study
GDP	Gross Domestic Product
GDP	Gross Domestic Product
GNU	Gross National Income
GPA	Grade Point Average
GTZ	German Agency for Technical Cooperation)
HCT	Human Capital Theory
HEF	Higher Education Funding
HEGC	Higher Education Grants Committee

HEI	Higher Education Institutions
HLI	Higher Learning Institutions
ICL	Income-contingent Loan
ICN2	Second International Conference on Nutrition
IHL	Institution of Higher Learning
JHEAC	Joint Higher Education Admission Committee
JICA	Japan International Cooperation Agency
KCSE	Kenya Certificate of Secondary Education
M1, M2…	Model 1, Model 2, Model 3 & Model 4
MCSG	Military Community Service Grant
MCT	Multi-context Theory of Decision-making
MoEST	Ministry of Education, Science and Technology
MoHEST	Ministry of Higher Education, Science and Technology
NCHE	National Council for Higher Education
NCLP	National College Lunch Programs
Nuffic	Netherlands Universities Foundation for International Cooperation
OECD	Organization for Economic Cooperation and Development
PoCs	Protections of Civilian Sites
RSS	Republic of South Sudan
RU	Rumbek University
SAT	Scholastic Aptitude or Assessment Test
SDG	Sustainable Development Goals

SES	Socio-economic Status
SIDA	Swedish International Development Agency
SPLA/M	Sudan Peoples' Liberation Army/Movement
SSA	Sub-Saharan Africa
UBG	University of Bahr el Ghazal
UK	United Kingdom
UNESCO	United Nation Education Science Organization
UNU	Upper Nile University
UoJ	University of Juba
USA	United State of America
USAID	United State Agency for International Development
WFP	World Food Program

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Investment in post-secondary education has been considered a key driver of social, economic, political and technological growth. Governments in both developed and developing countries have and still are allocating a large number of resources to invest in education because it has both private and social returns on investment (Rouse, 2017). As a result, social expansion worldwide has increased exponentially in the last three decades. Global enrolment trend has increased from 100 million in 2000 to 207 million in 2014. Countries such as China, India, USA, and Russia have become the major catchment areas, while economies with substantial matriculation include Brazil, Indonesia, Iran, South Korea, Turkey and Nigeria (UNESCO, 2017).

While the level of social demand has been rising over the last five decades, the mechanism for funding global growth in higher education has not followed in tandem. This has threatened not only the quality of the curricular and mode of delivery but also put significant pressures on infrastructure and standards of care accorded to students. It also has negative impact on inclusive access by lowering retention and completion rates for students from under-represented groups (Gale & Parker, 2017).

Consequently, many countries world-wide have shifted from a system of funding higher education based on the state (through tax-payers) to cost-sharing model. Cost-sharing refers to the pooling of public and private resources to meet students' cost of attendance. It takes several forms and may involve: the introduction of tuition fees (where public higher education was formerly free); the sharp increase in tuition fees (where tuition fees already existed); the imposition of user charges to recover the expenses of formerly subsidized food and accommodation; the diminution of student grants and scholarships; increase in student loans recovery system; and promotion of tuition-dependent private higher education (Johnstone, 2015).

Although cost-sharing policy has become ubiquitous, there is no issue in higher education as salient and controversial as the debate on the alternative model of funding. The proponents of cost-sharing maintain that as private funding increases the total revenue of higher education institutions and its' responsiveness in public subsidies slightly increase or at least remain constant (Orr, 2015). However, the opponents of cost-sharing uphold that the increase in private funding has negative effects on epistemic access, retention and attainment of higher education qualification if students have liquidity or rate of return issues (Paulsen & St. John, 2016; Okhidoi, 2016).

While some countries have, innovatively, addressed the issues of widening participation by creating equal opportunities and outcomes for all, others are still besieged by the conundrum. United Nation General Assembly (2016) incognizant of these challenges, outlined in Target 4.3 of the Sustainable Development Goals to ensure that all its member states endeavor to make quality higher education more accessible, affordable and equitable for all, particularly for the marginalized background.

Evidence from the 2012 and 2015 Organization for Economic Cooperation and Development (OECD) Education at a Glance Reports identified four models used by OECD countries. Model 1 (M1) countries are Denmark, Finland, Iceland, Norway, and Sweden. These nations have a more progressive tax structure, whereby students pay no tuition fees but benefit from generous public support for higher education. These countries' policies are deeply rooted in their social values of equality of opportunity. Outcomes for all and access to tertiary education is viewed largely as a right rather than a privilege. But Denmark and Sweden have introduced tuition fees for international students as a strategy to increase revenue (Suh, 2013).

Model 2 (M2) countries include; Australia, Canada, the Netherlands, New Zealand, the United Kingdom, and the United States. These countries implement high levels of tuition fees and well-developed student-support systems. The cost of higher attendance is shared between governments, households and private companies. Even if tuition fees in these countries are still viewed as extremely high, more than 75% of students receive public support in the form of mortgage or income contingent loans. This has widened participation for all, particularly to the under-represented groups.

Model 3 (M3) states charge high levels of tuition fees but have less-developed student support systems. These countries include Japan and Korea. Most students are charged high tuition fees on average of USD $ 4 500. M3 states have a somewhat less developed students' support system compared to M1 and M2. This approach puts a large financial burden on students and/or their families or sponsors. Students who excel academically but have difficulties in financing their studies are, however, provided subsidized tuition to ease their access, progress and attainment. M3 countries work towards improving their students-support systems.

Model 4 (M4) countries include; Austria, Belgium, the Czech Republic, France, Ireland, Italy, Poland, Portugal, Switzerland, Spain, and Mexico. These countries until recently were heavily dependent on the state subsidies and their tuition fee charges below USD $ 1 300. This means M4 nations charge moderate tuition fees compared to M2 and M3, which has eased students' participation although it may not necessarily guarantee the quality of their tertiary education system. Public loans are only available to a small proportion of students in these countries.

M1, M2, M3, and M4 codes describe the link between investment in higher education and students' participation. Although different countries have espoused a different approach, access to Higher Education Institutions (HEI) depended largely on students' ability to pay access fees and government support to the most vulnerable groups. The report shows that countries with a well-developed study-aid positively correlate with growth inclusive while those with a less developed financial aid system correlate with lack of opportunities for all. The latter has significant repercussions on students from low-income families.

It is important to note that the trade-off between the size and stability of public financing and the regulations fostering stability is important in determining educational administration and planning policies to influencing students' participation. A study by Monika and Januz (2017) on financial regulations and the diversification of funding sources in higher education institutions in selected European countries stated that if the public sources are insufficient, then the regulations expected to increasing the stability of financing are weak and hinder the widening of participation and intergeneration mobility.

Deducing from global literature on the relationship between funding and students' participation, it can be summarized that there is no single model that addresses all situations. Each country has unique political, economic, historical and social expediencies environment that policy must capture to design intervention. Thus each country must assess its own case to design appropriate educational system. The situation is much different in developing countries, India and Brazil, for example, improvised affirmative action and quota system to widen access and students' participation. Despite criticism that the model action is a placebo and cannot be regarded as a sustainable solution, it has increased participation for students from low-income families (Duraisamy & Duraisamy 2016).

1.1.1. Funding and students' participation in Sub-Saharan Africa.

In Sub-Saharan African (SSA) countries, the public universities and colleges have been caught between the rising per-student costs and the decline in state allocation. Demand for higher education was and is still driven by two main factors: (a) the recognition that university qualifications have both public and private returns on investment; (b) the rise in completion rates in basic education due to the endorsement of Education for All and Millennium Development Goals campaigns, which introduced "fee-free" education (Nudzor, 2015).

The challenge to reconcile social expansion with funding of higher education is a daunting task for educational administrators and planners in SSA countries (Chihombori (2013). The situation is more acute in fragile, conflict and violence contexts, where political circumstances make access to, progress and attainment of higher education qualification a necessary but frightening and costly experience, particularly for low-income, gender, first-generation and geographical students.

Over 50% of SSA countries adopted cost-sharing strategy as a mode of financing higher education. Research has shown that since the introduction of the "New Public Management" policy by the Bret-hood institutions in the 1980s and 1990s, more and more parents have come to recognize that public universities and colleges are still public enterprises even if they engage in a substantial degree of private financing for their "visible" cost from students or their sponsor (Orodho & Getange, 2014) compared to their peers in 1970s who protested the introduction or rise in cost of attendance (Woldegiorge & Doevenspeck, 2013).

A comparative study conducted by Johnstone (2003) describes how different SSA countries espouse one or several aspects of cost-sharing model as shown in table 1.

Table 1

Cost-sharing formula in selected Sub Saharan African countries

Country	**Aspect of Cost-sharing Adopted by the System**
Botswana	Dual track approach
Burkina Faso	Modest tuition despite Francophone fee-free tradition
Ghana	Limited user fees for lodging and food
Kenya	Dual track system
Mozambique	Tuition fees
Nigeria	Nominal fees to cover lodging, food and tuition.
Tanzania	Dual track system
Uganda	Dual track system; 75% private and 25% public support
South Africa	Dual track system

Source: Cost-sharing policy in Sub-Saharan Africa countries (Johnstone, 2003)

A lot may have changed in SSA countries since 2003 but these practices still endure. In the dual track system, the government determines the number of students' beneficiaries it would fully or partially support through a merit-based procedure known as cut-off points. This technique allows them to pay the cost of attendance for the few while other who do not meet the cut-off points are expected to access, progress and attain university qualification either through students' loans (where it is available) or out-of-pocket arrangement (Odhiambo, 2016; Oketch, 2016; Wangenge-Ouma, 2012).

Given that the market model requires students and/or their sponsors to pay in order to access education services, the conversation on cost-sharing framework cannot be concluded without raising concern over issues of affordability and inclusive growth. Higher education (HE) system is considered equitable when the participation of under-represented groups is not hampered by liquidity and rate of returns issues. Table 2 illustrates how selected SSA countries endeavor to make post-secondary education accessible, affordable and equitable to all, particularly for the most marginalized groups.

Table 2

Cost-sharing policies in selected Sub-Saharan African countries

Country	**Student Financial Assistance Programs**
Angola	Grants for living costs
Botswana	Grant-loan scheme
Burundi	Grants system
Cameroon	Need-based and merit-aid
Cote d' Ivoire	Grants for all qualified students
Ethiopia	Means tested loans
Kenya & Tanzania	Means tested loans
Mali & Senegal	Merit-based grants
Mauritius & Namibia	Means-tested loans
Uganda	Merit-based grants and means-tested loan
Nigeria	Grants
Zimbabwe	Means tested loans
South Africa	Means-tested loans

Source: Report on inclusive growth policies in Sub Saharan Africa (World Bank, 2010)

This evidence may have been overtaken by events but it illustrates the enduring tendencies on equity-in-access. Drawing inference from Table 2 indicates that dual-track system of financing higher education is the most preferred approach. This is because it allows both public and private sectors to pool their resources to support students' participation in public universities or colleges.

However, there are challenges with this approach, too. First, the emphasis of private funding has transferred undue pressure on students and/or their parents or sponsors. The roles of stakeholders in the programme are either less emphasis or ignored altogether. For example, in some SSA countries, the roles of the local government, donors, and the business sector are less clear. Johnstone (2015) observes that ultimate burden of cost-sharing in SSA and East Asia countries is generally passed on to consumers. This makes the practice more of a "cost-transfer" rather than "cost-sharing". It is critical that educational policy should rationalize the roles of all stakeholders so as to: (a) reduce the burdens on student and/or their parents, and; (b) mobilize widely to increase the total revenue of higher education.

Second, the challenges of managing students' loan programme in SSA countries. Gichuhi (2015), for example, examined how inadequate information on financial aid impacts on students from the rural area of Nyeri County's decision to apply and attend higher education. This results show that geographically, students in Kenya lack critical and timely information not just to apply but also to benefit from the national financial scheme known as Kenyan Higher Education Loans Board. The implication of this finding is that access is skewed in favor of urban students, thereby, hindering inclusive growth.

Masiati (2016) examined how the shift from government bursaries to loan schemes affected students' access and participation in Zambia. A total of 729 students participated in the study. The results indicated that although the introduction of the loan system was instrumental in widening participation in Zambian higher education system, the management of scheme still remains a challenge.

A survey conducted by Nyahende (2013) explored how the Tanzanian Higher Education Students Loan Scheme influences students' demand. The finding demonstrated that while students' loan scheme increased enrollment, there were still some flaws in the means-tested selection protocol. Similarly, Musa (2015) pointed out that Tanzania loan scheme was ineffective due to means-testing strategies, high rate of defaulters and excessive subsidization. The implication of this finding is that the system promotes access without equity.

A comparative study by Johnstone (2016) summarized the challenges facing SSA countries' loan scheme. The fault-line includes: the excessive subsidization of loans either by fixing the interest rate below the government borrowing rates or the charging of no interest. These practices undermine the recycling of the funds and the effects of inflation on the seed money. There is a high rate of debtors due to poor documentation, inadequate staffing or lack of staff training. This has made it difficult or almost impossible to track defaulters. There is a lack of due diligence in determining who is eligible or who is not for financial support. This has increased the chances of fraud and corruption in means-tested behavior. The arbitrary methods of loan cancelation deprive other vulnerable students the chance of benefiting from the seed funds in the future circulation.

In order to increase the efficiency and effectiveness in the loans programme in SSA countries, there is a critical need for educational policy and practice review. The reforms on recruitment should take into consideration the country's level of Information Communication and Technology (ICT) exposure. Improving eligibility criteria requires that students' profiles must include their parents' income data. This is not only essential for targeting the most vulnerable students but also reducing frau, corruption and marginalization. This ensures that the limited funding goes to the intended students. It is in this way that the different loan programs can achieve their intended purpose of widening participation and narrowing the gaps between the upper-income and low-income groups.

1.1.2 Funding and students' participation in South Sudan.

The Republic of South Sudan (RSS) gained independence on 9th July 2011 following an internationally supervised referendum, where its' citizens overwhelmingly voted to separate from the then Sudan. The "yes" vote effectively brought an end to half a century of civil war, racial and religious discrimination. But the challenge of transition which manifested itself in form of a power struggle among the ruling elites continued to remain the country a fragile, conflict and violent contexts to enhance the building of a nation (Johnson, 2016; Babyesiza, 2015).

A study conducted by Garang, Issa, and Ali (2017) indicated that the resumption of post-independent civil war in 2013, compounded by global oil crisis in 2012 and 2014 resulted into a large decline in South Sudan's Gross National Income (GNI). The authors pointed that South Sudan GNI fell by around 70% since independence as the annual inflation rate rose from 165 in January to 730 in August 2016 as illustrated in figure 1.

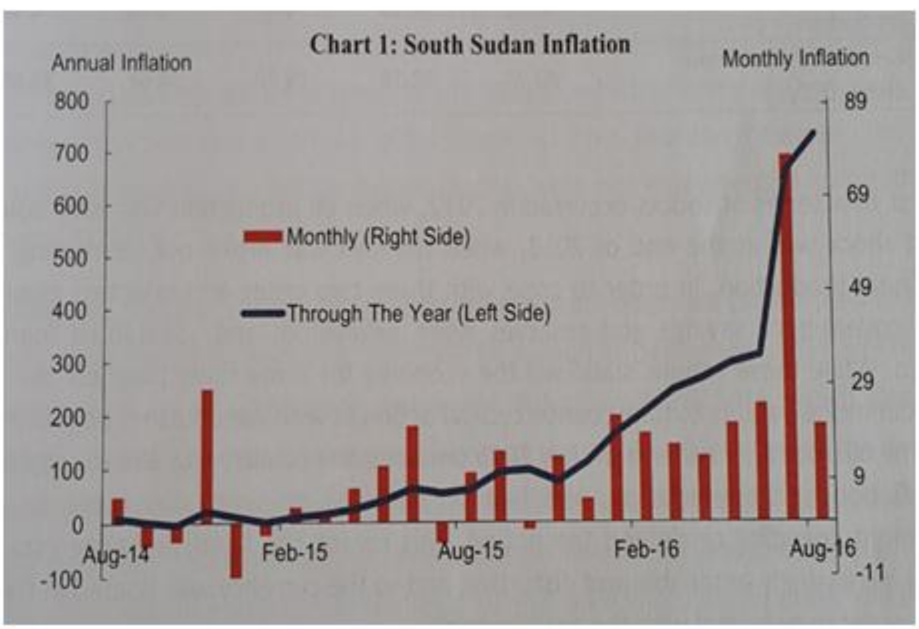

Figure 1: Inflation soared from 165 percent in January 2016 to 730 percent in August 2016

Similarly, the South Sudan Pound (local currency) lost to US dollars by 80% pushing up inflation from 165 percent in January 2016 to 940 percent in December 2016. The rise in the cost of living led to the rise of: (a) lawlessness and crime attributed to unknown gunmen phenomenon; (b) insecurity that engulf the whole nation forcing some citizens to flee to neighboring countries or relocate to Balkan style Protection of Civilian Sites (PoCs) within the country (Garang et al, 2017).

Investment in the military rose faster than other sectors. By 2015/2016 budget year, allocation to defense sector exceeded 40% of the national budget. Borrowing also increased due to political instability, economic downturn and prioritization of military solution over other means of conflict resolution (Ministry of Finance and Economic Planning Budget (2017) as demonstrated in figure 2.

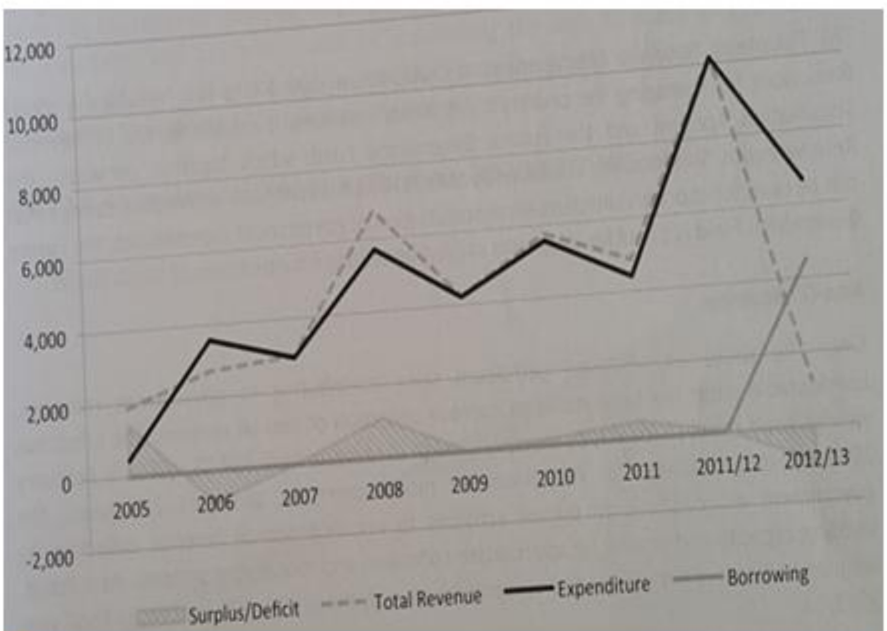

Figure 2: Development in revenue, expenditure and budget surplus or deficits

Education, which forms one of the five top national priorities, experienced severe decline not only in allocations but also delays in disbursement of state appropriation. This had a dire consequences on the financing of the five flagship public universities, namely; the University of Juba inaugurated in 1977, the University of Bahr el Ghazal in 1990, the University of Upper Nile in 1992, the University of Rumbek in 2009 and Dr. John Memorial University of Science and Technology in 2010.

Higher education in South Sudan, which had been "free" by all accounts, adopted cost-sharing policy as a strategy to response to changes in macro-economic. This change from a mode of financing higher education exclusively by government to alternative financing was driven by three main factors; demographic expansion, dwindling public revenue as a result of political instability and rise in the cost of living due to the economic downturn (Ministry of Higher Education, 2013).

Public universities charge tuition and user fees to meet the "visible" cost of education. Competition sued as each university set its own sticker price as shown in Table 3;

Table 3

Variable tuition fees in South Sudan public universities

College Degree Program	**UoJ**	**UBG**	**UNU**	**RU**	**DJGMUST**
Medicine	5,200	2,700	3,370	-	-
Nursing, public health & veterinary medicine	-	-	1,870	-	-
Animal production, agri-culture & forestry	-	-	1,570	-	-
Engineering	4,700	-	-	-	-
Natural resource, applied science & environment,	3,400	-	-	-	1,770
Computer studies	2,200	-	-	-	-
Economic & social studies	2,200	1,700	1,570	950	1,770
Education science	2,200	1,900	1,570	950	1,770
Education arts	2,200	1,700	1,270	950	1,770
All diploma course	2,200	-	-	-	-

Source: National Council for Higher Education, 2014

Key: UoJ = University of Juba UBG = University of Bahr el Ghazal
UNU = Upper Nile University RU = Rumbek University
DJGMUST = Dr. John Garang Memorial University of Science and Technology

The First Vice Chancellors Forum (2013) first pointed out that difference in tuition fees could promote regionalism which could divide the country among ethnic lines, and consequently undermine the national character of public universities. The National Council for Higher Education (NCHE) in 2014 adopted a resolution that gives government the right to control tuition caps. The standardized tuition fees by programmes were published in a document known as "Harmonized Tuition Fees for South Sudan Public Universities." This policy was enforced through Ministerial Order No. 11/2016 albeit minor resistance from some quarters. While tuition capping may have regulated competition, it did not provide answers to a number of issues. This includes; (a) the decline and delays in disbursement of state subsidies to public universities in the country; (b) how to make quality higher education accessible, affordable and equitable to all, particularly the under-represented groups, and; (c) raised question whether the government should regulate or public universities should be allowed to set their own sticker price.

The critiques of the published sticker price maintained that it lacks strategic and procedural clarity on a number of issues such as: (a) the roles of other key stakeholders in the mobilization of funds; (b) the implementation procedures and price adjustment principles, and; (c) how the revenue accrued from tuition fees could be accountable and transparent utilized. This in essence means that the current procedure transfers excessive burden of post-secondary education on parents despite the fact that higher education has both private and public returns on investment. It is against this background that the study interrogates how changes in the funding model from exclusive government through tax-payers to cost-sharing affect students' participation in South Sudan public universities across income quintiles.

1.2 Statement of the Problem

The Republic of South Sudan gained independence in 2011. The country adopted cost-sharing policy formally after independence without any provision for financial aid to cushion needy students. The main reasons for the shift of paradigm were: the resumption of civil war in 2013, rise in demand for higher education and decline in state allocation provided grounds (Garang et al, 2017; Mamdani, 2016). However, the rise in inflation due to political instability has led rise in the cost of food, boarding, transport, books, and medicare led to a growing social and economic and strategic concern that cost-sharing could create a new barrier to students from low-income families.

There is also fear that it could also create strategic policy difficulties for government to widen access and narrow the gaps between income groups. If nothing is done to address the issues: first access, affordability and equity in higher education could favor the affluent groups. Second, it could undermine government effort to achieve Target 4.3 of the Sustainable Development Goals, which calls on all United Nations member states to make quality higher education accessible, affordable and equitable to all, particularly those from marginalized background (General Assembly Resolution, 2016).

Surprisingly, there is little empirical work on how cost-sharing affect students' participation in South Sudan public universities. The reviewed conceptual and empirical studies focus on annual enrollment trends. It is against this background that this study interrogates how the changes in the mode of financing higher education in the contexts of economic and political fragility affects students' participate in South Sudan public universities. The researcher theorized that if the cost of investment in higher education rises, then the consumption of higher education services reduces for students from low-income families.

Funding is an important policy agenda for educational policymakers and practitioners. Documented evidence has shown that private funding increases public universities revenue and responsiveness if public funding remains constant or slightly increases. However, if public revenue is insufficient, then a new hurdle is created for students from low-income families, which requires policy regulation to increase stability, narrow gaps between income groups and promote intergenerational mobility (Orr, 2015).

Given the existing knowledge gap in the context of South Sudan, it is difficult if not impossible for educational policy makers to make any meaningful assessment of the current financial situation or marshal plan on how to improve access and students' academic participation without research. This study purposed to contribute towards improving policy and practice on higher education funding in fragile, conflict and violent context as well as strategies to widen students' participation for all in South Sudan public universities (SSPU) for education cannot wait for the return to peace but has to prepare the citizens for peace and socio-economic development

1.3 Research Questions

The following research questions guided the study:

i To what extent does the rise in net cost affect students' decision to access South Sudan Public Universities?

ii To what extent does family economic circumstances affect students' enrollment in South Sudan Public Universities?

iii How do students' perceive the influence of government regulation of tuition pricing on academic participation in South Sudan Public Universities?

iv How do students' perceive the influence of public-private partnership on lunch vouchers on students' academic attendance in South Sudan Public Universities?

v What are the main challenges affecting students' participation in South Sudan Public Universities?

vi How can these challenges be overcome to make quality of South Sudan Public Universities more accessible, affordable and equitable for all?

1.4 Research Hypotheses

Four predictions were formulated based on research questions "i" to "iv":

H_{o1} There is no significant difference in mean between in-state and out-of-state students with respect to the influence of the rising net cost on students' decision to access South Sudan Public Universities

H_{o2}: There is no significant difference in mean between upper-income and low-income students with respect to the influence the family economic circumstance on students' decision to enroll in South Sudan Public Universities.

H_{o3}: There is no significant difference in mean between students who support government control of tuition capping and those who support South Sudan Public Universities' right to set its' own sticker pricing with respect to price sensitivities.

H_{o4} There is no significant difference in mean between the category of students who support universal lunch voucher system for all and those who prefer the targeting the most vulnerable with price sensitivities.

1.5 Operational Definition of Key Terms

The following operational definitions are critical in understanding the influence of cost-sharing on students' participation;

Academic participation refers to the ability to access, enroll and attend lectures at any level of highest education studies.

Access to higher education is university policy which ensures equality of opportunities for all, particularly those from marginalize groups

Cost-sharing policy is to the pooling of both public and private resources to pay the cost of higher education

Dropout describes the proportion of students that left the program for various reasons compared to those who originally entered or progressed in a college or university

Enrollment refers to the proportion of applicants who receive an offer and enroll in higher education institutions

Equality of opportunities and outcomes has two dimensions; first, fairness which implies that no person is denied access due to social circumstances such as gender, economic and cultural status. Second, the strategy through which quality higher education is made accessible, affordable and equitable to all, particularly for students from marginalized groups.

Influence describes input or environmental variable that plays a positive or negative role in students' participation in post-secondary education.

Participation refers to the total number of students' who access and progress to completion of their study program in South Sudan public universities

Retention describes the proportion of students that remain in a program after enrollment compared to those who originally entered or drop out of a college or university

Socio-economic background includes; the level of education of the father and mother, their occupation and income. This is the standard classification used by International Labor Organization to measure occupations or economic, social and cultural status.

Student is any person who is enrolled in South Sudan public universities for purposes of pursuing an academic qualification

1.6 Theoretical Framework

The study was guided by human capital theory, financial nexus theory for decision-making and multi-context theory, respectively. Three theories were required because one theory was not enough to describe the social and economic influence of cost-sharing on students' participation.

1.6.1 Human Capital Theory.

This study was guided by human capital theory (HCT). The framework is an economic framework popularized by Theodore Shultz, Gary Becker and Jacob Mincer in the 1960s and 1970s. The model examines the relationship between education and development. Borrowing a metaphor from the stock market capital concept, the framework posits that expenditures on education, job training, and healthcare can be viewed as investment in human capital because it yields social, cultural, political and technological returns (Rouse, 2017; McCowan, 2016).

The major strength of the theory are: (a) it provides economic justification for investment in education (Teixeira, 2014), and; (b) it associates schooling with the increase in individual wages, GDP growth, civic participation, productivity, lower crime rates, and better health outcomes (Jepsen, Christopher, Montgomery & Mark, 2012). As such, many governments have prioritized higher education among its top national agenda and attributed demographic expansion to this philosophy.

Critics of the theory have cited: (a) the weak relation between quantitative expansion and quality assurance. Majawa (2014) observed that while HCT has been accredited with demographic expansion, it has exerted extensive pressure on the infrastructures, quality of the curricular, mode of delivery and standard of care; (b) social pressure associated with the decline and delays in state appropriation, and resulting into the transfer of some burden of funding from government to students and/or their sponsors (Johnstone, 2015); (c) the strong theoretical link between higher education and productivity but a weak practical connection between qualification and employment (Woessmann, 2016).

The justification for the application of this theory to this study is to demonstrate the linkage between investment in human capital and social, economic, political and technological development. The needs for professional cadres in South Sudan require no over-emphasis because the country is recovering from over a half-century of civil war (Hilda, 2016) and low literacy level and poverty (National Bureau Monitoring and Evacuation Survey, 2012) as made return to violent conflict more attractive. Investment in human capital is a necessary condition if South Sudan is to recover fully from the effects of the long civil war.

1.6.2 Financial Nexus Theory of Decision-making.

Financial Nexus Theory (FNT) is a decision-making framework coined by Paulsen and St. John (2002). FNT posits that there is a link between family socio-economic circumstances affects students' participation. The variations in family income affect students' decision to apply and attend higher education. It affects both the choice of where to study and the program of study (Paulsen & St. John, 2016).

FNT underscores the importance that funding creates an enabling conditions for students to enroll, remain enrolled and graduate. Although funding is one of the important variables to address issues of access, affordability and inclusive in higher education policy, it is by no means the sole factor influencing students' decision to enroll, remain enrolled and attain university qualifications. There is a growing body of research showing that other non-monetary considerations equally play a significant role in students' matriculation and attainment. These include; the political will of the government, students' aspiration, and commitment to the goal; parent, peers and teachers support, institutional rule and regulations, academic progress and extracurricular activities (Goldhaber, Grout & Holden, 2017; Gichuhi, 2015).

The justification for using FNT as a guide to the study is to highlight financial challenges faced by students across income groups. Given that South Sudan cost-sharing formula has no provision for financial aid and persistently docked with irregular disbursement of state appropriation, it is expected that a section of students, particularly those from low income families may be disadvantaged. As such, it would be difficult for South Sudan to achieve its global obligation on Target 4, 3 of Agenda 2030, 'to make higher education more accessible, affordable and equitable to all, especially for students from the marginalized groups.' Similarly, it may also emasculate the Sudan Peoples' Liberation Army/Movement (SPLA/M) motto of Justice, Liberty and Prosperity to all.

1.6.3 The Multi-context Theory of Decision-making.

Perna (2006) proposed the multi-context theory (MCT) for college decision making processes. The framework hypothesizes that there is a multi-level connection between students, families, high schools, state economic and social policies in influencing post-secondary students' choice of where and what to study. The major strength of MCT is the assumption that policy makers, practioners, families and scholars have direct interest in improving students' access, retention and success. For the major goal of access is success (Tinto, 2012). Therefore, each one of them has a special role to play in students' matriculation at their own levels.

The threats to MCT are the lack of political will at all levels, low students' aspiration, and commitment to the goal; parents' socio-economic circumstances, negative peer influence, lack of teachers' support, institutional rule and regulations, academic progress and extracurricular activities (Goldhaber, Grout & Holden, 2017). Weak outreach support has also been cited by a study in Kenya as a threat to matriculation (Gichuhi, 2015).

In choosing the MCT as a guide to the study, the researcher sought to answer the question of how best can public universities in South Sudan address the issues of access, affordability and equity at all levels. Recent changes in cost-sharing policies have spurred the debate on the influence of fees on students' choice of what and where to study at university. Therefore, it is important to evaluate at each level the ability to provide students counseling.

It is against this background that the researcher identified three theories to guide a single study. HCT provides guidance on investment in higher education while FNT offers directives on importance of financial factor in students' decision to choose where and what to study. MCT cautions that monetary factors are not the sole variable in students' in the students' decision-making process. There are other non-monetary factors from micro through macro to mega levels of decision making that influence students' matriculation and success. The researcher, therefore, makes a maiden contribution to policies and strategies on creating equality of opportunities and outcomes for all, particularly the underrepresented groups in a fragile, conflict and violent context of South Sudan.

1.7 Conceptual Framework

The fundamental thinking is that when the cost of investment in higher education rises, the consumption of educational services reduces for students from low-income background for liquidity or rate of returns on investment issues.

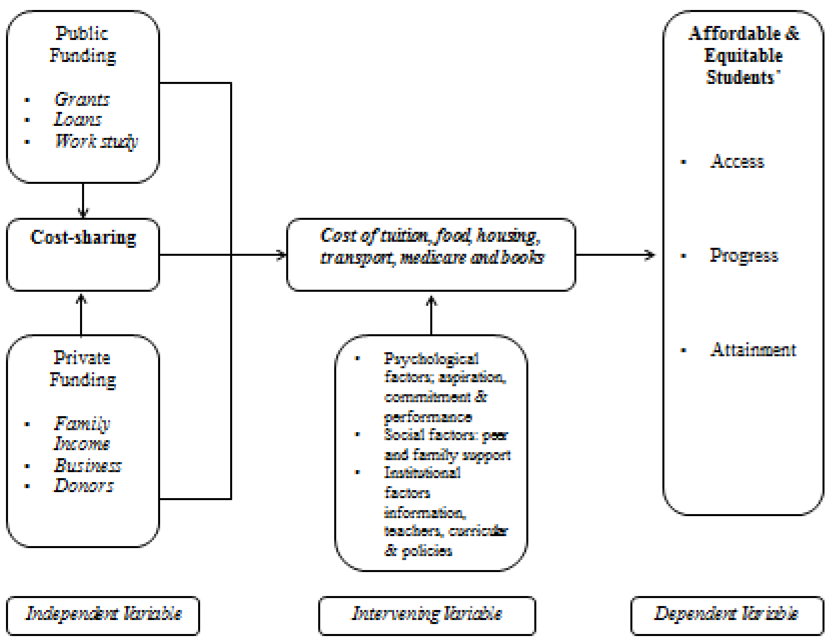

Figure 3: The influence of cost-sharing on students' participation in South Sudan in public universities

In figure 3, cost-sharing policy is the independent variable. It refers to the pooling of public funding (loans, grants, and work-study) and private funding (students, families, entrepreneurs and donor individuals or organizations) to meet cost of higher education. Students' participation is the dependent variable. It refers to students' access, progress and attainment. The researcher assumes that when the cost of investment in higher education rises, the consumption of education services reduces for students from a low-income background.

The understanding that a public university can be considered as a public enterprise while at the same time charging tuition fees is a new concept in the management of education in South Sudan Higher education in Sudan was exclusively funded by the government. When South Sudan became independent in 2011, it inherited the policy. But this was short lived as the challenges of transition and the pressure of social demand necessitated a paradigm.

Shift in the management of higher education.

The idea that students pay for the cost of their education without any provision of financial aid is new and was the main features of this change in the mode of funding in South Sudan from a situation where government exclusively provides subsidies to all enrolled students to cost-sharing approach. The fragile, conflict and violent context under which higher education operates is yet another challenge driving the cost of education (tuition fees, food, boarding, transport, books, and medicare) up while the money to meet them continue to loss value. The rising inflation affects investment in education differently across income lines.

Research by Paulsen and St. John (2016) observed that family economic circumstances have a significant influence on students' participation. The effect is much felt among low-income groups. In this study, the researcher frames low-income students as those whose parents have either no access to higher education or secondary school graduates/dropouts. Middle-income groups refer to students whose one or both parents achieved university education or involved in some form of business. Upper-income groups refer to the elite class or the privileged 'nation' of South Sudan. It is argued that low-income students are more sensitive to cost and where they perceive tuition fees as high, they either postpone access or choose low-cost programme or consider dropping-out of higher education altogether.

Similarly, middle class students are painted as the optimistic group. Their prospect to access and succeed is financially assured. Upper-income groups, however, are less bothered about financial aid. Paulsen et al (2016) posit that, low-income and middle-income students appear to be more careful about their expenditures while upper income are less sensitive about cost of attendance. This means all forms of monetary barriers contribute to the rising inequality in post-secondary education and ultimately widening the gaps between social groups.

It should be noted that while funding is important but it is by no means the sole factor influencing students' participation. Other non-monetary factors such as social, psychological and institutional variables also influence students' participation. These factors are intervening variables in this study. The researcher holds constant the effects of the intervening variables in a bid to determine the influence of the independent variable on the dependent variable.

1.8 Significance of the Study

This study is anticipated to make three fundamental contributions to research, policy, and practice. South Sudan has transitioned from one conflict to another (Mamdani, 2016; De Waal, 2014). Given the challenges of transition, there is very little known about the resilience of education institutions and programmes albeit operating in a fragile, conflict and violent contexts. The study is hoped to increase knowledge on the challenges of financing higher education in fragile conflict and violent context. The findings are expected to help researchers, educational policy makers, parents and students to plan access and success.

The study is expected to contribute to improving policy on higher education. SDG Target 4.3 calls on all United Nations member states to strive to make quality higher education institutions accessible, affordable and equitable to all, particularly for students from less privileged groups (UNESCO, 2017; United Nations General Assembly, 2016). The issues of quality, affordability and inclusive growth can be illusive in conflict situation. Despite these challenges, the study is expected to contribute towards improving policy on higher education financing. It is expected to help educational policymakers to create new impetus to support equality of opportunities and outcomes as a strategy widen participation and promote inter-generational mobility.

The study is also expected to contribute to improving educational practices on inclusive growth in access. A study by Kroth (2012) in Ethiopia provides a typical example that adopting cost-sharing without any provision of financial aid to cushion students from low income families is like promoting growth without inclusion because it does not take into consideration the different socio-economic circumstances. If investment in higher education significantly goes up, the consumption of education service goes down for low-income families (Paulsen et al, 2016).

As such, it undermines the dream to access and attainment of university degree for this particular group (Salmi et al, 2014). By putting emphasis on access, affordability and equity, the researcher intends to help educational practitioners to remain vigilant to monitoring and evaluating not only “how many students” enroll annually but also “who is participating and who is not participating” , why and what is being done by stakeholders to making access more inclusive.

Higher education is a highly professional field and a good investment for individuals' families and nation. In the recognition of the fact, access and success can be skewed in favor of the elites if educational policy makers and practitioners neglect to create equal opportunities and outcomes to support the most vulnerable students to widening participation..

1.9 Scope and Delimitation of the Study

This study was conducted in South Sudan public universities (SSPU). The two accessible institutions were the University of Juba and the University of Upper Nile due to the fragile, conflict and violent political contexts. The study was restricted to the period between 2011 and 2016. The period was chosen to measure how South Sudan higher education system translated the vision of South Sudan liberation fathers who fought to deliver a country that upholds the values of justice, liberty and prosperity for all. The numbers and composition of students participating in SSPU were used to measure how these values were absorbed.

The term "public universities" was used to designate post-secondary education (PSE) institutions owned and managed directly by the government as opposed to private universities owned by private proprietors and tuition dependent. Public universities were selected because they enroll over 98% of South Sudan higher education caseload and have transitioned from the mode of funding primarily based on government through tax payers to cost-sharing.

The units of measurement in this study were basically students, members of the National Council for Higher Education (NCHE), university administrators, food contractors and parents. These categories put together form the target population or the universe in the study. They were chosen because they are key informants. They have experienced the transition from mode of funding based on the government to cost-sharing and could explain its influence on students' participation.

The main focus of the study was to investigate the nexus between cost framework and students' participation in South Sudan public universities. The study puts emphasis on net cost affect students' consumption of education services. All other costs such as staff salaries, capacity building, capital and research were held constant in a bid to examine students' cost of attendance.

Parental level of education, occupation, income and family size was used as a proxy to measure socio-economic circumstances of parents. This matric is borrowed from the International Labor Organization's standard classification of occupations to capture socio-economic status of parents. The researcher relied on the average range of parental monthly income provided by students to categorize students into low-income, middle income and upper-income groups.

The phrase "alternative funding" was used to unpack both public and private sources of revenue influencing students' participation. Private source of funding consists of financial revenue obtained from students and/or their parents, donors, and business sector. Private sector could be individuals or organizations. The researcher recognized that it is the complex web of pooling funding from all stakeholders that constitute cost-sharing or alternative funding.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter discusses the review of relevant literature on whether change in the mode of funding has any material influence on access and students' academic participation in higher education. It is divided into two main parts. Part I reviews critical theories shaping students' access and attainment across different income groups. Part II analyses empirical studies on the influence of cost-sharing on students' participation with the purpose to validate knowledge, identify knowledge and methodological gaps.

2.2 Critical Review of Theories

Elite, neo-liberal and equity theories have shaped the conversation on students' access and participation in higher education in the four last decades. Paying for college or university has become ubiquitous phenomenon. But some categories of beneficiaries feel left out because they cannot meet the cost of their education. Therefore, understanding the theories that underpin higher education funding (HEF) is a policy agenda for the government, educational administrators, planners, students, parents and sponsors.

2.2.1 Elite Theory

Elite theory originates from political science and sociology. It was formulated between the end of the nineteenth century and the beginning of the twentieth century by Vilfredo Pareto (1848–1923), Gaetano Mosca (1858–1941), and Robert Michels (1876–1936). These three authors are referred to as the founding fathers of elite theory. Their works carry a strong imprint of Max Weber's ideas, particularly where political power and leaders' charisma is concerned (Lopez, 2013). The theory explains the power relationship in society. It postulates that community's affair is often influenced by a small subset of its members, usually un-elected but politically, economically and military well placed 'nations' (Maloy, 2016).

The proponents of elite theory maintain that power is the mark of success and prosperity. It indicates the balance the power brokers in the society (also known as the superior class) and the common people (unusually regarded as the inferior group or poor class). The relationship between the two groups is always tilted in the favor of the social, economic, political and military prosperous members of the society (Domination, 2014).

Overtime, this theory found its way into the corporate world, schools and colleges mainstream, shaping the narratives on the funding and placement policies in the educational sector. In ancient Greece philosophy for example, Plato's "guardian" described the elite as the ruling class. Aristotle titled them 'the rule of the best man'. The sophist (equivalent to professors nowadays) taught rhetoric and logic to the sons/daughters of the rich and powerful class (Majawa, 2014).

Similarly, famous universities founded under the auspices of the Vatican such as Bologna, Paris, Prague and Heidelberg also mirror the elite formation during the medieval period. The curriculum prepared the aristocrats for the leader position in the society while the peasants were trained to be obedient and subservient (Meyer, St. John, Chankseliani & Uribe, 2013). Education administrators and planners acquiescently served the system to ensure schools or colleges continue retain their sources of funding.

Elite theory is concerned with authority structures in schools and colleges. It is a belief that money and power influence control and services delivery to students according to their social class. It thrives on donations offered exclusively by the wealthy. Meyer et al (2013) featured how school or universities administrators were increasingly susceptible to the creeds, gender, ethnicity, corruption, bribe, connections, favoritism and political correctness ideologies, which were a part of the norm. Institutional discrimination also meant the historical advantage groups directly influence the system and consistently checked compliance. Inclusive growth was not important and did not matter, where the burden of higher education is shoulder by the rich 'nations'. In recent years, however, this concept is being challenged although they are not entirely eradicated.

Many countries have made widening participation and narrowing the gaps between income groups the core of their national policies. In USA and Australia, for example, higher education institutions (HEI) which do not comply with stipulations on inclusive growth behavior codes are branded unjust and reprehensible (Mangset, 2017; Pitman, 2015).

Elitist tendencies still endure and quite often resurface under different principles. A research by Ortagus (2016) observes that although higher education rankings have significantly contributed to improvement of HEI qualities globally, regional and nationally, to some extent it contributes to exclusiveness inclinations as recruitment to such institutions favors class orientation.

Nasongo (2015) articulates that elite tendencies in SSA countries and particularly Kenya manifest itself in form of ethno-nationalism and intolerants in schools and colleges recruitment of staffs and students. Babyesiza (2015) describes cultural-elitism in Sudan education system, which was imposed to through Arabization and Islamization polices.

Ethno-centrism is the new form of elitism in SSA countries. The predicament of Rwanda, Somalia, Sudan and South Sudan is a strong and painful reminder of this theory. It is one of the greatest threats to the domestication of United Nations General Assembly's Agenda 2030 Target 4.3 and South Sudan national goal to widening participation through creating equality of opportunities and outcomes. Ethno-nationalism impedes a country's cohesiveness and hinders development by turning friends into foes overnight if left unchecked. Educational policy makers and planners should endeavor to ensure inclusive growth becomes the centre of access and success at all levels. It should be regarded as a norm and not an exception.

2.2.2 Neoliberal Theory

Neoliberalism is a dominant ideology and political mindset shaping the world thinking for several decades. The term neoliberalism was coined at a meeting in Paris in 1938 by Ludwig von Mises (1881-1973), and Friedrich von Hayek (1889-1992). The ideology advocates for economic and social policies that limit government interventions in free enterprise and individual rights.

The proponents of neoliberalism argue that the public sector is inherently inefficient and ineffective compared to private sector. They claim that welfare states system is in a crisis because it has become too large and un-manageable, and therefore creates an unnecessary burden on tax payers by generating an ever-higher rates of cyclical inflation (Fagerlind & Saha, 1989). They claim that those who benefit from higher education should contribute towards meeting the cost of instruction for higher education is both a private and public good (Tan, 2014; Barr, 2010; World Bank, 2010).

Margaret Thatcher and Ronald Reagan were champions of this theory in 1970s and 1980s. They worked very closely with the Bret-hood Institutions to privatize social services through deregulation. Countries that did not corporate with neo-liberal ideals were smeared and to a large extent denied loans or risk diplomatic isolation. Neoliberalism strategies also known as World Bank Structural Adjustment Program encompass privatization of public services, reductions in government spending, deregulation, free trade, and commercialization (Orodho and Getange, 2015).

Akplu (2016) maintains that the partnership between state and private sector has contributed to the transformation and internationalization of higher education SSA countries over the last two decades. He illustrates that higher education institutions rose from 2 institutions in 1957 to 133, and students' enrolment from less than 3,000 students to approximately 290,000 students. The researcher attributes Ghana's education revolution to the contribution of deregulations of higher education services.

But critiques of neo-liberal agenda claim that expansion in tertiary enrollment neither improved equity nor quality and standards of care. They also maintain that higher education in SSA countries have by far remained the domain of the upper-class and those who replaced them after independence such as male, urban dwellers and members of majority ethnic groups. Enrolment of female students has picked up in some regions while the male folk is miserably trailing in others areas (Meyer, 2016; Salmi & Bassett, 2014).

According to Orr (2015) neoliberalism is not necessarily good or bad. On a positive note, private funding increases the total revenue of higher education if government allocations remain constant or increases. It also improves management responsiveness to students' demand. On a negative note, however, the increase in private funding may create new barriers to access and success if students already have liquidly or low rate of return issues. It also affects students' decision to enrolment, remain enrolled and complete a program.

Understanding how financial policies can affect students' participation is important for educational leaders and planners. This is because higher education is both an investment in time, money and human effort as well as consumption. Paulsen et al (2016) observes that students delay enrolment or chose low cost courses, drop out or avoid access all together if they perceive that the cost of attendance is higher than its returns. Therefore, synchronizing state appropriation, tuition fees and loans can make quality higher education accessible, affordable and equitable for all, particularly for learners from underrepresented groups.

2.2.3 Equity Theory

Equity theory is attributed to John Stacey Adams. The theory is one of the theories of motivation. Adams in 1963 suggested that individuals were more motivated only when they perceived equity in opportunity and treatment. But they were de-motivated when they perceived an unfair treatment. The major tenet of the theory is that equity does not merely depend on individual's input-to-output ratio but also on the perception of fairness (Adams, 1963).

Although, the theory has been in existence for the last five decades, it still applies to both individuals, corporate and even educational research. Initially, it was used to measure employees' motivation. For example, employees expect employers to be fair in the distribution of tasks and rewards for comparable inputs and outcomes. Employees may reduce their level of input where they perceive inequity and exploitation in the system.

Equity theory in higher education was shaped by the modern theory of distributive justice, particularly the work of the following prominent thinkers; John Rawls, Amartya Sen, Ronald Dworkin, and John Roemer (World Bank, 2006). It does not focus on motivation but rather on social justice. Rawl's theory of justice was the major catalyst of equity theory in higher education. It is characterized by a move towards reflective equilibrium by examining structures and practices that promote exclusion (Meyer et al, 2013).

Exclusion in higher education may take many forms. It starts out by a blatant denial of the right to participate by students on the basis of wealth, creed, race and class. It may also refer to any form of corruption, bribery, connection, favoritism, ideology and political 'correctness' that hinder participation in postsecondary education (Meyer el al, 2013).

Equity theory postulates that exclusion creates inequalities and instability in the society which is not good for social and economic development. But fairness and inclusion create equality of opportunities and respect for diversity in higher education. Educational leaders and planners should understand that widening participation and narrowing the gaps between socio-economic groups is not possible in postsecondary education without adherence to the principles of fairness and inclusiveness (Salmi et al, 2014).

From economic efficiency stand point, equity in access and students' participation is a development imperative and the right of all citizens. However, some scholars have criticized equity theory for opening a Pandora-box. In this, it promotes affirmative action instead of meritocracy. Others have observed that the concept equality of opportunities which is derived from equity principle is often confused with equality, which means sameness (Marav & Espinoza, 2014). Educational leaders and planners who advocate for equity in higher education need to understand and clearly explain these concepts to stakeholders.

Equity theory is used in this work to reflectively examine the interface between cost and students' participation. Educational leaders, administrators and planners ought to understand that it has become fashionable for institutions of higher learning to use terminology widening participation purely for convenience. There is need therefore, to ensure educational leaders, administrators and planners audit exclusions periodically even where admission is centralized. Management should go beyond merely assessing 'how many' learners are annually enrolled or complete their studies but also to understand 'who is participating, who is not participating? What is the government and stakeholders expected to do to address in such situation?

Research has shown that expansion in students' participation does not necessarily mean equity. Studies by Malla and Galle (2015) and Kroth (2012) examined how Ethiopian higher education reformed. Their analyses reveal that despite the rise in enrollment, inequalities still persists along ethnic, gender, geographical location and socio-economic background. Equity theory in higher education addresses two issues: fairness by ensuring that personal or social circumstances such as gender, socio-economic status or ethnic origin does not create obstacle to achieving educational potential, and inclusion which ensures diversity in practice and not merely on paper. These two dimensions are closely intertwined and need to be given due consideration in policy cycles so that the education system does not merely reproduce elites.

2.3 Review of Empirical Studies

This section examines empirical literature on how cost-sharing model affects students' access, and attainment. It is organized into six themes in accordance with the research questions. The overall aim of the analyses of empirical studies is to identify gaps and validate knowledge on how the cost of higher education affects students' access, progress and attainment.

2.3.1 Net Cost and Students' Access

Net cost is described as the total cost of one year of a college or university education students pay after subtracting grant aid and tax credits. Net cost has continued to rise in last three decades since public universities introduce cost-sharing and adjustment for inflation. Students and their families evaluate net price when determining whether they can afford a college education. The theme explores the link between net cost and students' decision to choose where and what to study.

2.3.1.1 Net price and student's decision to a university.

Affordability is a significant factor in students' decision to access, progress and complete college education. There is a growing literature examining the relationship between the fees Students' pay to enroll, remain enrolled and complete their education. A study by Pigini, and Staffolani (2016) examines how cost, geographical accessibility and quality of higher education shape the enrollment composition in Italy higher education system.

They measured how the ability to pay affects both the decision to participation and the choice of which university to attend. They used a nested logit model to measure enrollment decision and university choice where the effect of supply-side attributes is allowed to be heterogeneous across students' secondary school backgrounds and family social classes. The finding established that the lower costs of higher education institutions, the greater geographical distribution of the students' enrollments, which show that there is a link between the cost of attendance, the number and composition of students. This study confirms Paulsen et al (2016) who found that students' numbers and composition do not substantially change when students' net cost rise.

Issues on net cost were also raised in an evidence-based comparative study conducted by Orr (2015). He compared eight Bologna Agreement Countries coping with cost-sharing model. The researcher made these four prediction: (a) as private funding increases, total revenue of HEIs increase if public funding (or at least) remains constant; (b) as the incentives to earn private funding increases, HEIs become more responsive to student demand if they have an increased motivation to maximize revenue; (c) increasing private funding has a negative effect on student demand, if some students have liquidity or rate of return issues, and; (d) increasing private funding affects student choice on where and what to study if some students have liquidity or rate of return issues.

The study found that: (a) public spending in PSE in Bologna Process countries increased almost everywhere, even in the face of rising enrolment with tuition fee implementation; (b) the influence of tuition fees was less marked in traditional universities but clearly visible in new institutions; (c) while social demand increased everywhere, cost-sharing may have had adverse effect on students from marginalized groups, and; (d) students from low-income groups choose low cost programmes or suspend access if they have liquidity issues. The implication of this study is that college affordability is a significant factor in student access, retention and completion.

In Sub-Saharan African countries, there is increasing literature pointing to the fact that most countries have adopted cost-sharing. But the predicament for under-represented groups is that college or university cost still remains an impediment to access and participation to segments of the population. A study by Oketch (2016) discusses the predisposition of students to attending a four-year public college in SSA countries drawing on benefits and drawbacks of the prevalent mixed models funding of higher education. The study found that cost of attendance is likely to deter students from low-income to enroll or seek access low cost colleges if they cannot access financial aid. This study has implication on how cost directly affects students' number and composition and the desire to borrow where financial aid options are available.

For many students and parents, college enrollment decisions can be summarized to merely one word, cost. A college's net price is cost of attendance, which includes cost of tuition fees and other expenses such as food, boarding, transport, medicare and books. This is the cost of education that students (if they are working) and/or their parents/sponsors have to pay from out-of-pocket resources. In South Sudan, however, students and their families evaluate net price when determining whether they can afford a college education or not since the cost-sharing model adopted by government has no provision for financial aid. The studies cited indicate that there is a direct relationship between net price and students' participation.

2.3.1.2 Net price and student choice of facility location.

Facility location has received great attention in the past few years. There is growing evidence on the relation between net price and institution location. A study by Scott-Clayton (2013) measured the level of importance students placed on various academic and non-academic factors influencing college access for high achieving high school seniors in Honored courses in three private and one charter school in southwestern. College exploration questionnaire was administered in the final weeks of their senior year to identify the three top reasons why a student selected a public or private institution. Based on a sample of 114 students, 67% indicated they planned to attend public institution while 33% private institution.

The researcher found that students selecting private colleges placed a higher level of importance on three academic elements associated with: quality of student/faculty ratio, curriculum and support services. However, students who selected public institutions considered cost of the study location, scholarship and peer support for the institution as the most important factors. This means that students in both public and private institutions place varying degrees of importance on elements comprising cost of education, quality, reputation and the distance.

The question whether distance is an important determinant to students' decision to access, remain and complete their studies is persistent issue in planning college cost. Frenetta

(2004), for example, tackled this question two decades ago. The researcher assessed how the physical distance from homes affects the decision to apply and attend higher education after high school graduation in Canada. The researcher used the Survey of Labor and Income Dynamics to collect data from Canadian university postal codes database. A special postal code conversion file was used to calculate the geographic co-ordinates between home and university of interest for the student. After a control of family income, parental education and other factors associated with university participation, students living 'out-of-commuting distances were found to be less likely to attend.

Frenetta (2004) framed in three ways: 0-40 km was considered within commuting distance; 40-80 km possibly beyond commuting distance while 80 km or more was seen as beyond commuting distance. However, the development in modern information, communication technology has not only demystified distance but has also revolutionized the mode of transport, communication and delivering the curriculum.

A research by Falch, Lujala, and Strom (2013) estimates the impact of geographical proximity to K-12 graduates' choice of college. The study calculates effect of students' actual travel time between students' homes and colleges on students' achievement in Norway. A difference-in-difference model was used to measure the influence of time on achievement. The study found that reduced travel time has a positive effect on students' performance and attainment. The implication of this study is that institutional or private means of transport could reduce time lost in commuting between school and home. Hence improve students' performance. But there is a cost associated with these measures.

Another study by Wu (2014) also examined how travel time may shorten study time. One hundred and nine students from Clemson University were recruited to complete an online questionnaire asking about them about their travel mode, travel time, travel distance, social time, study time, height and weight, late-to-class frequency because of transportation, travel-time reliability, stress level, and academic performance in high school GPA and SAT. Using a path analysis model to test which variables are more crucial in predicting academic performance.

The study found that there is a correlation time and performance. This means students were more likely to have a shorter study time and receive poor grades if they did not carpool. For a high rate of late coming due to unreliable means of transportation, increases travel-time while lowering the study time. Thus, limited time engaging in exercise outside class can lead to poor performance. There is a cost implication on the improvement of transport to reduce the travel time while at the same time increasing study time.

Danielle, Kaustav, Gail, and Wayne (2016) examine whether it is cheaper to commute or reside on campus for freshmen students seeking access. The researchers' hypothesis that students who live on-campus, at least during their freshman year, have more likely to complete their degrees on time compared to those who live off-campus. Their finding indicates that commuting students have less time to read or complete their assignment. Traveling to and fro college places additional demands on their time reduces their opportunities to develop a strong commitment to complete their required tasks.

From these empirical studies, particularly the work of Danielle et al (2016), and Wu (2014), it can be concluded that cost there is a cost implication on students' decision to choose either to reside on campus or off-campus commuting. This decision is subject to availability of financial support, institutional marketing strategies, transport, boarding and accommodation. Yet both authors emphasized that on-campus option improve performance by reducing travel time and increasing study time. These scholars understood there is a relationship between net price and students' choice of location facilities.

2.3.1.3 Net price and decision to study at home or abroad.

Although students' mobility has been a part of the historical fabric of education, shared experience for diplomatic and cultural relation, it has been influenced by a number of factors including cost of attendance. Today, students' mobility has been enhanced by globalization and internationalization, which is driven by digital revolution and the increasing demand for knowledge economy. Yet the decision to study at home or abroad boarders among others availability of funding

There is a growing literature on the relationship between net price and the decision to study at home or abroad. Zhang, Worthington and Hu (2017) explored why international students choose Australian Public Universities as their destination of study. The study covered the period from 2003 to 2012. A sample of 37 Australian public universities was used to identify pull factors. The study found that the pull factors attracting enrollment in Australian public universities were institutional reputation, academic excellence of overseas colleges, returns on job after holding funding issues constant.

International students' mobility worldwide has reached new heights and the conversation has taken a new direction. A study by Chao, Hegarity, Angelidis and Lui (2017) found that mainland China is the leading exporter of international students globally. Most of Chinese students choose United States as their preferred destination.

Another study by Lee (2017) examined the East to East students' circulation. The researcher examined whether Chinese students study in the East. The study found that the numbers of Chinese students studying in Korea was on the rise. More and more Chinese students choose nearby Asian countries on grounds of its proximity and affordability.

On the other hand, Mainland China itself has become a new route for students wishing to study abroad. A study conducted by Jiani (2017) analyzed pull factors influencing Mainland China as a new destination for international students. The study found that China's economic boom and opening up has made it a growing education hub despite limited literatures on Chinese universities' reputation and excellence. This study shows that China's provides a new distinct prospect for global students' mobility.

2.3.1.4 Net price and students' choice of a discipline.

There is link between net price and the choice of a discipline. A quasi experimental design conducted by Harnovinsah (2017) studied the relationship net cost and the choice of subject area. The researcher divided the respondents into two categories: (a) students who want to work as public accountants, and; those who do not want to work as professional accountants. Category "a" assumed that professional accounting provides a better career opportunity while category "b" assumed other professions provide wider and better career opportunities. The study found that students' choice of career path was influence by expected job opportunities in the future.

A study by Dixon and Humble (2017) examined 954 households in Freetown and neighboring districts, Western Area, Sierra to examine why parents from low-income group prefer public over private universities. A multinomial logistic regression was used to examine the relationship between family support and study preferences. The study found that parents were inclined to choose public universities because they were cheaper compared to private universities.

A research by Amani (2016) set out to determine the association between the reasons why university students in Tanzania select their fields of study and intention to join their respective professions upon completion of their studies. A mixed methods research approach was adopted to study a random sample of 1043 undergraduate students (Male=61%, Female=39%) drawn from four universities. The study found that determinants of career choice and intentions differed significantly with fields of study. Students' intentions to join their prospective careers were more associated with intrinsic than extrinsic factors.

2.3.1.5 Net price, marketization and students choice of institutions.

There has been growing evidence on the relation between net prices, marketization and students choice of institutions. A qualitative study conducted by Suh (2013) explores how Sweden University of Gothenburg markets her institutions and programmes to attract international students. Semi-structured interview guide was used for data collection from graduated master students who study or have studied in Sweden University of Gothenburg and staff. The study found that the push factors were language barrier, geographical proximity, growing far-right attitudes in the host countries and cost. The pull factors were institutional reputation and quality of academia and digital marketing of the institutions and programmes. The implication of this study for educational planners is that institutional and programme marketing is a key ingredient to attract potential students.

Gundersen (2017) also studied why USA, Europe, Canada and Australia become the leading destination for higher education studies. A total of 422 undergraduates were selected at random. A correlation design was used to measure the degree of association between the independent variable and dependent variable. Cross-tabulations and logistic regression analysis were used to analyze data. The study found that students from developing countries preferred USA institutions because they rank best in global institutions rating and offers them returns on their investment.

There is a link between higher education ranking and students' choice of institutions. World University Ranking is an annual publications based on true performance rather than methodological changes. Universities core missions are teaching, research and knowledge transfer. Universities are excluded from the Times Higher Education World University Rankings if they do not teach undergraduates or teach only a single narrow subject or if their research output is less than 1,000 articles (Times Higher Education World University Rankings, 2015). This publication indicates that university ranking influence not only the marketization of higher education institutions and its programme of studies but also students' access and funding.

Another study conducted in India by Irfan, Ahmad, Umair, and Ahmad, (2013) confirmed the association between university ranking, students' choice of career path and net cost. A total of 226 undergraduate intending to enroll in engineering and business Programmes in five public universities located in three cities of central Punjab (Lahore, Faisalabad and Sahiwal) in India. Their study found that the bestowing of order on college and universities by higher education commission has a positive influence not only on the reputation of institutions and programmes but also on tuition and net pricing.

The opponents of university ranking have criticized University Ranking as trade in education, where institutions' services are the commodity and students clients. Commodification is a process where goods and services are transformed into objects for sale. Vsanthakumar (2017) expressed concern that university ranking in India was "academic Brahmanship", which aggravates the traditional caste system. Similarly, analysis by International Association for Universities (2014) identified threats and opportunities in the university world ranking. Pooling 1336 universities across 131 countries, it gauged their views on the global ranking system of universities. They found that commodification of higher education affects equal opportunities and outcomes for all, increasing the tuition and net cost and puts pressure on students and their sponsors to respond to some advertisements of lucrative careers.

In SSA countries students' mobility is rather muted although they exist. A study by Wachira (2017) examined why South-South movement was less studied compared to South-North student mobility. The study found that almost half of students from SSA countries choose to study in Europe and USA compared to Africa. However, there were some limited intra Africa students' mobility with South Africa, Ghana and Uganda providing a showcase. In South Sudan study abroad is still the preserve of the elites. The emerging middle class were forced to abandon the study in the regional projects and brought home their children because of high net cost.

2.3.1.6 Students' net cost in fragile, conflict and violent context.

Investment in higher education has been considered a key driver of social, economic, political and technological growth. Governments in both developed and developing countries have and are still allocating a large amount of resources to invest in education and training basically for both private and social returns (Rouse, 2017). This has led to demographic expansion worldwide with India, USA, and Russia becoming the leading catchment countries. These countries are followed by Brazil, Indonesia, Iran, South Korea, Turkey and Nigeria (UNESCO, 2017).

But higher education in Sub-Saharan Africa countries has remained the lowest. A study by the World Bank (2018) indicates that two billion people still live in countries where development outcomes are affected by fragility, conflict, and violence (FCV) contexts, **a** critical development challenge that threatens efforts to end extreme poverty, affecting both low and middle-income countries. The share of the extreme poor living in conflict-affected situations is expected to rise above 50% by 2030. Conflicts also drive 80% of all humanitarian needs and reduce gross domestic product (GDP) growth by two percentage points per year, on average. This has a negative implication on students' participation.

A study by Diwakar (2015) examines effect of armed conflict on education in Iraq. It uses the 2007 Iraq household socio-economic survey data in conjunction with data on civilian deaths recorded by the Iraq body count database. Conflict exposure is measured by the number of deaths as a percentage of the population and number of conflict incidents. Results are robust to different identification strategies, dependent variables and conflict measures. The findings suggest an increase in conflict is associated with a decrease in education for both genders, though more pronounced for boys.

Another study by Justino, Leone, and Salardi (2013) analyses the short and long-term effects of violence on education outcomes in Timor Leste in 1999. The researchers examined the short-term impact of the violence on school attendance in 2001 and its longer-term impact on primary school completion of the same cohorts of children observed again in 2007. They then compared the educational impact of the 1999 violence with the impact of other periods of high-intensity violence during the 25 years of Indonesian occupation. The short-term effects of the conflict are mixed. However, in the longer term, the study found evidence of a substantial loss of human capital among boys who were exposed to peaks of violence during the 25-year long conflict.

Afghanistan is often perceived as a 'failed' or 'fragile' state in terms of state 'functionality', lacking in capacity to provide security and wellbeing to its citizens and failing to prevent violent conflict and terrorism. A study by Pherali and Sahar (2018) explores how education since 2001 has become a major victim of Afghanistan's protracted crisis that involves international military interventions, fragile democracy and growing radicalization.

Drawing upon qualitative interviews with educational officials and practitioners in Afghanistan and critically examining the literature in education and conflict, the researchers argue that Afghanistan's education is caught in the nexus between deteriorating security conditions, weak governance and widespread corruption, resulting in rebel capture of educational spaces for radicalization and violent extremism. This implies that education faces the great risk, where state fragility and fundamentalism intersect.

Vega and Bajaj (2016) examined the gap between education as a right and the reality of managing education in protracted civil conflict situation of Colombian. They found that despite the strong constitutional support and innovative educational strategies, a major gap exists in the translation of the political will into a flexible non-formal educational models designed for children affected by conflict. As such teachers demonstrate resilience to work under FCV contexts amidst severe limitations of inadequate programme and training support.

These studies show that the negative impact of FCV on learners cannot be overemphasis. Weldeegzie (2017) examined the impact of the Ethiopian–Eritrean war on a range of childhood outcomes, including schooling. The researcher found that children exposed to war are likely to drop out of school, struggle with reading, and have a relatively lower educational aspiration and overall attainment. Akresh and De Walque (2008) studied the effect of the 1994 Rwandan genocide on schooling. They found that exposure to war reduced children education by one-half of a year. Guárico and Verpoorten (2013) explained that Rwandan children who were exposed to war had 18% reduction in schooling.

The long-term effect of political violence on educational attainment also varies by sex and residence. Akresh, Bhalotra, Leone and Osili (2017) analyzed intergenerational effects of political violence case of the Biafra war and argued that ex-combatants have low aspiration to return to school because: first, the use of male children as combatants at their prime age. Second, the economic shocks of political violence impose automatic leadership and bread-winners role to surviving children that education becomes secondary. This has a negative effect on human capital accumulation particularly rural-based children. This means that when FCV becomes a business, more violence and less funding for education becomes the norm.

The Republic of South Sudan (RSS) became independent in 2011 but relapsed two years later into another cycle of political conflict. A study by Hilde-Johnson (2016), and Babyesiza (2015) revealed that the challenges of transition have prevented the new country a smooth transition from a liberation movement into modern democracy. The post-independent civil war has not only dashed the optimism the citizens to achieving shared prosperity but also the translation of Sudan People's Liberation Army/Movement (SPLA/M) ideals and motto of "Justice, equality and prosperity for all."

According to Hodgkin and Thomas (2016), enrollment swung up and down from 2013-2016 due to FCVC contexts of South Sudan. Citing the South Sudan Schools Attendance Monitoring System data, the authors outlined that primary schools enrolment fell from 1.3m in 2013 to 1m in 2014 but bounced back in 2015 and 2016 following a different pattern. They noted that while more than 500 schools in Greater Upper Nile remained closed due to the vulnerable situation, schools in Greater Bahr-el-Ghazal and Greater Equatoria expanded due to the rise in the displaced persons population.

Hence, there is a consensus that investment in higher education benefits individuals and the state: college graduates are more likely to be employed and earn higher wages than non-graduates, boosting state tax revenues and reducing pressure on the social safety net. However, higher education systems globally need to do more to be more inclusive. Enrolment to a large extent favors the affluent mocking the policy to widen participation and narrow achievement gaps in order to promote intergenerational mobility.

2.3.2 Socio-economic Factors and Students' Participation

Students and their families evaluate net price when determining whether they can afford a college. Theme II reviews empirical literature on how socio-economic status (SES) affects students' participation in higher learning institutions (HLIs). SES is determined through measuring parental level of education, income, occupation and family size.

2.3.2.1 Family income and students' participation.

Family income can be wages or any form of compensation given to any family member who is legally allowed to work. Family characteristics differ globally. In some countries, family status is categorized into three: upper-income, middle-income and low-income (Paulsen et al, 2016). In India, economic class, caste, gender and religion are still prevalent practices in categorizing SES of a family despite massive expansion of higher education.

Using multivariate logistic regression to analyze data from National Sample Survey 68th Round (unit level records), Pramaniks (2015) examines how students' participation is governed by economic and social background of the family. The results reveal that parental education and family income exert a direct effect on an individual's propensity to participate in higher education. However, the youth belonging to Scheduled Tribe and Scheduled Caste have significantly lower odds of going to higher education compared to general category for the whole of India. Females are less likely to participate in higher education in rural areas, while Hindu females in rural areas are less probable to participate in higher education.

Similarly, a study by Valente (2017) in Brazil examines association between racial and class. Using the national survey data from Brazil's "Exame Nacional do Ensino Médio" (National Secondary Education Exam, the researcher analyzed the correlation between race and class and higher education access among high school students who graduated between 2004 and 2008. The results indicate a vicious circle, where there is a strong connection between race, socio-economic status and university attendance.

Using an explanatory research design, Eshetu (2015) assessed the effects of parents' SES on the academic achievement of students in national examination in Ethiopia. A total number of 538 students were randomly selected from thirteen junior secondary schools. Percentage, independent samples t-tests, Spearman's rho correlation and one way ANOVA were used to analysis data. The results revealed that SES of parents, particularly educational level and occupational status of parents has strong association with the academic performance while income on access.

A qualitative study by Drajea and O'Sullivan (2014) investigated the effect of parents' literacy levels and family income in Uganda on the quality and nature of parents' involvement in their children's primary education. The views of 21 participants were sought. Methods for data collection included observation of family routines and practices, semi-structured interviews with parents and children, and review of relevant documents. The study found that there was a significant relationship between parents' income and literacy levels and the quality of support to their children's education. However, household poverty emerged as a major obstacle to educational success for children from low-income families. Understanding the influence of parental income on students' participation is important to appreciate access and achievement gaps.

2.3.2.2 Influence of parental educational level on students' participation. Researches show that students with educated parents and high family social capital perform better in their career. A study by Al-Matalka (2014) examined how parents with college experience influence their children's choice on what and where to study. The finding showed that parents with high skills are better prepared to provide career guidance to their children compared to parents with inadequate skills. This implies that the first-generation are less prepared for the university education compared to those from children of graduates.

A study by Jaiswal (2018) examined the influence of parental education on parental academic involvement at the secondary school level. A total of 615 secondary school students, aged 14-17 years were sampled from 15 board members affiliated secondary schools session 2016-17 of Varanasi city, India. Parental academic involvement was measured by students self-reported Perception of Parental Academic Involvement Scale. Analysis of variance indicated that mothers‟ education was more positively associated with academic involvement compared to fathers' education.

In a study, Vukusic (2018) examined if there was any difference in the sense of parental competence between parents of pedagogical professions and those with non-pedagogical profession. Research was conducted on a sample of 544 parents of pedagogical (N = 247) and non-pedagogical professions (N = 297). The results showed that parents of pedagogical professions (kindergarten and elementary school teachers) were more professionally involved compared to those of other professions. This result can serve as confirmation to the positive connection between pedagogical and parental competence.

2.3.2.3 Influence of parental occupation on students' participation.

Research has shown that most parents regardless of their SES aspire to equip and support their children's education. But unlike parents from mid and high SES backgrounds who usually have "educational cultural capital" to support their children's educational aspiration, parents from low SES backgrounds often are unable to confidently access information about possible education pathways within and beyond secondary school.

The jobs parents do can predict their educational level and income. It also predicts their children's' achievement of gaps in attainment. A study by Odoh, Ugwuanyi, Odigbo, and Chukwuani (2018) examined the influence of parental occupation and level of education on academic performance of accounting students in Nigeria. The scope embraced accounting students in the Department of Accountancy, University of Nigeria, Nsukka. Descriptive survey design was adopted for the study. The main instrument for data collection was structured questionnaire. The population of the study comprised 150 final year students of accounting in the University. Data analysis was done with the statistical tools of Chi-square and t-test statistics. Results obtained indicate that parental occupational level significantly influenced students' academic performance in accounting studies in Nigeria. The study also found out that parental educational levels have strong positive relationship with students' academic performance in accounting studies in Nigeria.

A contrasting study in Kenya did not find parental occupation a predictor of students' performance. Ngare, Maronga, Tikoko, and Sigei (2016) examined the influence of parental occupation on academic performance in public mixed day secondary Schools in Nyamira North Sub-County, Kenya. Performance of the sub-county in KCSE has been dismal over time. The study was carried out amongst 857 parents of KCSE candidates and 22 head teachers of public mixed day secondary schools in Nyamira North sub-county.

The study adopted *ex- post facto* research design. A randomly selected sample made up of 265 parents and 21 head teachers of Mixed Day Public Secondary Schools was used. Primary data were collected by use of questionnaires and interview schedules. Data were analyzed using descriptive statistics and non- parametric tests to establish relationships between variables. The study revealed that parental occupation did not affect performance in KCSE examination in 2010. The finding showed that most parents were involved in manual low paying occupations which attracted low payments and thus limiting parental participation and input in the education of children.

Parental education level and income predict parental occupation. These two studies indicate that there is a positive relationship between parental occupation and students' performance where family level of education and income are high. However, where education level and income is low, parental occupation negatively correlates with performance. Hence, household poverty level emerges as a major obstacle to educational success for children across the three socio-economic categories of family studied.

2.3.2.4 Influence of family size on students' participation.

Rapid population growth remains a concern for many countries in less developed regions of the world, especially the least developed countries. There is a growing literature on the changes in population growth. Age structure and the distribution of the population determine and influence the implementation and achievement of the goals and targets of the 2030 Sustainable Development Agenda. As a consequence, there was a marked distinction in the policies to influence the rate of population growth by level of development.

In this context, however, the study discusses its influence on population dynamics such as fertility and reproduction health, ageing, urbanization, migration, environment, poverty, hunger and insecurity on higher education access and attainment gaps. Over 50 per cent of the family level variation in their children's education is attributed to parental SES, and consequently their children's educational placement and achievement.

A study by Shen (2017) explains the effect of family size on children's education drawing evidence from the fertility control policy in China. It explores the exogenous changes in family size caused by China's population control policy to estimate the causal relationship between family size and child education outcomes. The results show that compared to an only child, a person with an additional sibling will have an approximate seventeen percentage point's lower likelihood of completing middle school in China. Separate regressions across individual characteristics reveal that much of this negative effect appears to be driven by the cohorts born in earlier years after the policy, and children with the highest birth order within a family.

In a sharp contrast with Chinese family control policy, South Sudan family policy is still informed largely by social and cultural practice which considers a larger family size as a blessing. National Bureau of Statistics (2015) population projection for South Sudan 2015-2020 reports that an average family is five children. The study concludes that this is a large family size by global standards and has a negative influence on students' access, particularly for the first-generation students. Given the fragile, conflict and violent context, large family is akin to poverty.

A study by Roksa and Deutschlander (2018) examined the role of family resources in enhancing college access. Their study addressed three research questions; the relationship between family social or cultural capital and academic under-match; the extent to which social/cultural capital explains students' college-going attitudes or behaviors, and how family social and cultural resources contribute to social class inequality in academic under-match? Using a longitudinal study, they sampled 5,370 10th graders in 2002 to the end of their high school education and entry into college. The study found that family social and cultural capital plays an important role in the understanding how do family social and cultural resources contribute to social class inequality and academic under-match at the point of applying to college given that they influence where and what to study.

The effect is felt among the first-generation college students. First-generation students include students whose parents have neither a college degree nor attended college. Another study by Schmid, Gillian, Kraemer, and Kueppers (2016) examined the effect of large family size on opportunities and academic achievement gaps among first-generation at the University of Wisconsin-Madison, faculty professional development. Their analysis revealed that first-generation students are not quite often provided professional guidance on access. This has not only disadvantaged them but has also made access to the lucrative disciplines untenable. This has putting them among those who access higher education without success.

Evaluation of changes in population growth, age structure and the distribution is critical to understand the issues of poverty eradicate, improvement of the living standards and well-being of all people, promote peace, and more inclusive societies. It is equally central to include population matter in the curriculum so as to reverse its negative trend on environmental degradation, migration, fertility and reproductive health. Population policies should raise awareness on how to raise and/or enforce minimum age at marriage, expand girls' secondary school enrolment/ retention and to provide school-based sexuality education.

2.3.3 Students' Perception on Alternative Funding Methods

Cost-sharing policy has become a global phenomenon for funding higher education. It involves the pooling of both public and private resources to achieve higher educational goals. Theme III deals with the alternative methods of funding higher education and authority to set tuition fees. This theme is sub-divided into five sub- themes. This includes: tuition fees as a private and public good; tuition fees regulations; tuition fees deregulations, and; free college education.

2.3.3.1 Public and private source of revenue in a cost-sharing dispensation.

Cost-sharing that is, the shift in at least part of the higher educational cost burden from governments (or taxpayers) to parents and students, is a worldwide trend. The phenomenon is manifested in the introduction of (or in sharp increases in) tuition fees, user charges for lodging and food, and in the diminution of student grants. The phenomenon is beginning to show in European countries, which still remains the last bastion of generally "free" higher education, as well as in countries that were once Marxist (Johnstone, 2019).

Cost-sharing has diversified higher educational sources revenue in most countries even in the face of extreme austerity. This includes; government, entrepreneurs, donors, students or their parents. Weber (2006) developed a complex framework to illustrate how this five pathways interface to enable higher education achieve its visions, mission, goals, objectives and targets as illustrated in figure 4.

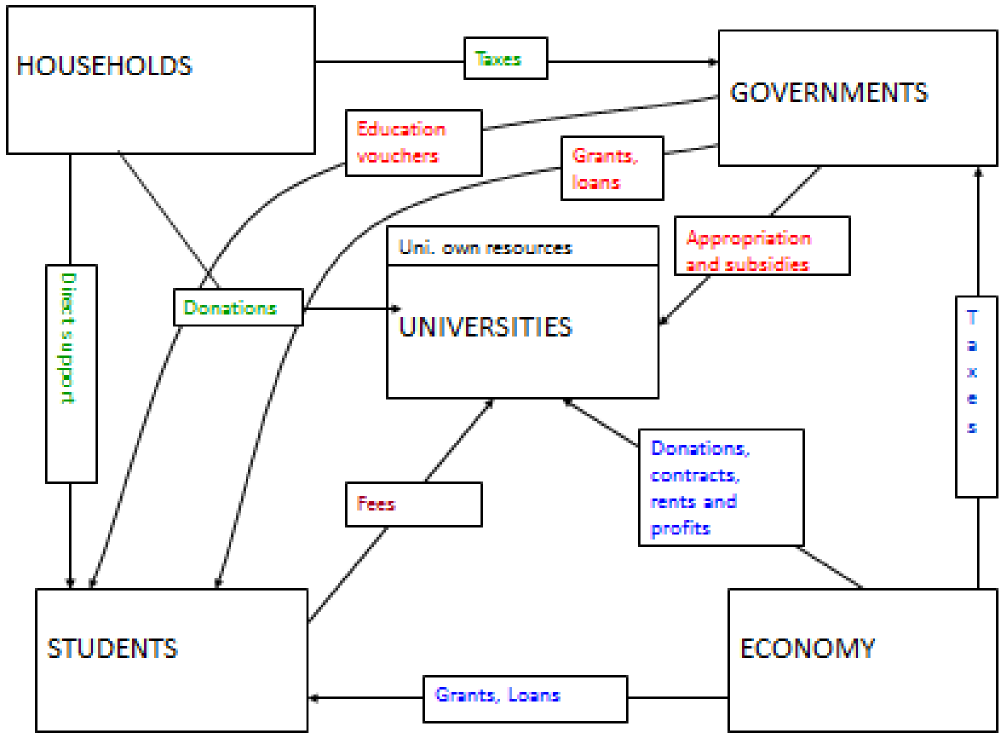

Figure 4: The complex web of interlocking vacuous circle relation between public and private funding

These five lanes are interdependent and needs each other's support to promote students' access and attainment. Public or state funding is the first lane. It refers to financial grants or aid students receive from government to cover the cost of their education. The most common form of public grants is block and categorical, scholarship, bursaries and work-study or military community's service grants. Until recently, governments worldwide exclusively covered the cost of higher education in its entirety (Bekhradnia, 2015).

Block grant is a federal gift aid. It is money given by the government to public universities to support a broad range of educational goals. Categorical grants, on the other hand, refer to gift aid from government for specified projects. Matching grants is a combination of both. There is growing evidence on how state subsidies have funded higher education over the years.

A study by Mattos, Politi, and Yamaguchi (2018) examined the extent to which federal block, categorical and matching grants support funding dispersion across jurisdiction in Brazilian municipalities from 2004 to 2010. Their analysis proposed that both block and categorical grants contribute to increase funding dispersion across jurisdictions, thereby supporting decentralization of funding. Matching grants have not produced a consistent effect on dispersion. The means that federal subsidies and categorical grants were critical to achieving capital investment, recurring needs, research innovation, widening access and narrowing achievement gaps.

There are different types of educational grants; need-based or merit-based gift aids (grants). Scholarship, for example, is a form of gift aid to need-based students while bursaries gift aid (awarded) to students who demonstrate exceptional performance or other talents in sports activities. Both pro-poor gift and achievement gift do not have any strings attached as Sarah, Cohodes and Goodman (2013) analyzed the difference and similarities between gift-aid and merit-based scholarship. Their study revealed that neither scholarship nor merit gift was refundable. This implies that scholarship was a pro-poor option while bursary a pro-achievement option.

Critiques of merit-based aid claim that meritocracy was discriminatory and striving on class and income inequalities. This view is supported by a study by Lim (2016) qualitative research discussed how in Singapore the concept of meritocracy captures both elitist and egalitarian aspirations, and the ways in which its education policies have for a long time vacillated between these conflicting dimensions. The study argues that critical studies of meritocracy as an ideology is negotiated by dominant social groups as these seek to legitimize particular distributions of social resources. Such dominant ideologies, however, are not only produced in the education system but are also reproduced through it, often in far more complex ways. The author concludes that the ideology animates the very mechanism that reproduces inequality.

Another study by Sjoquist and Winters (2016) investigated the effects of state merit aid programs on attendance at Elite Colleges in the USA. They used difference-in-differences to examining U.S. News and World Report rankings of colleges and universities to measure college quality and students' enrolment in out-of-state postsecondary. The study found that state merit aid programme only induce a small number of students to attend out-of-state schools ranked among the top 15. The majority of students forgo these quality institutions by this qualification criterion.

Elite institutions are highly priced to maintain a small intake. A study by Kramer, Ortagus, and Lacy (2018) measured the impact of the authority to cap tuition and tuition pricing on students' intake in public and private institution. The research found that private colleges and universities with the authority to set their own tuition increased their in-state tuition and fees to recruit high performers. But public institutions with state-controlled tuition-setting authority respond to broad-based merit-aid policies by lowering intake and fees to their in-state tuition. This finding indicates that elite institutions are highly price as way to recruit elites and maximize profit.

A study by Jungmin (2016) tested the Bennett hypothesis by examining whether four-year colleges changed listed tuition and fees, the amount of institutional grants per student, and room and board charges after their states implemented statewide merit-based aid programs. According to the Bennett hypothesis, increases in government financial aid make it easier for colleges to raise their tuition. This is because many statewide merit-based aid programmes covered full tuition and fees for students enrolled in their state colleges.

The researchers then hypothesized that colleges in states that implemented merit-based aid programmes would raise student charges or reduce institutional aid for more revenue. Using the difference-in-differences method, he analyzed data from the integrated postsecondary education data System from 1987 to 2009. The results showed that colleges significantly changed their prices, but did not always increase the net price that students had to pay. Public colleges in many states with merit-based aid reduced published tuition and fees and increased the amount of institutional grants per student. These results suggest that the implementation of merit-based aid programmes could make college education more affordable for those who receive the aid, and may not harm non-recipients.

These expositions show the differences between pro-poor and pro-elite based grants. At the heart of the debate is whether the college should adopt blanket subsidies for all or reward outstanding performer. The proponents of equity espouse blanket subsidies because it promotes inclusive growth in students' access and academic achievement. However, the proponents of neoliberals argue that merit aid platforms are not programmed to be inclusive but rather to promote excellence and quality performance. The implication of these studies is that applicants who can demonstrate a substantial financial need should not be left out because they cannot afford to meet the cost of access and academic attainment.

Work-study programme is yet another form of federal gift aid**.** The approach may be the smallest form of federal grants to higher education but has made education possible for non-traditional students. There is growing number of studies on work-study programme in higher education. In USA, for example, the Economic Opportunity Act of 1964 introduced the federal work-study to enable low-income students to work and study at the same time. It pre-dates both Pell Grants and Stafford Loans.

In this system, the government allocates student employment subsidies as a form of student gift aid. Unlike merit-based grants, its negative impact is only felt when it is mismanaged. A study by Scott-Clayton and Minaya (2016) attempted to explain whether federal work-study (FWS) widens students' participation or not. The researchers developed an application of propensity scores, which they called conditional counterfactual matching, which they used to estimate the overall impact, and the impact under two distinct counterfactuals: working at an unsubsidized job or not working at all.

The researchers then estimated the effects of the FWS programme on a broad range of participants and outcomes. The results show that about half of FWS participants are inframarginal workers, for whom working reduces hours improved their academic outcomes but had little impact on future employment. The opposite was true for those who did not have work-study programme. There was little evidence of negative effects of FWS for any outcome or subgroup but a positive effect on lower-income subgroups. This shows that FWS can improve equity in access, and affordability by increasing enrollment, retention and attainment. The FWS has been one of the pull factors for international students to choose developed countries as a destination of study.

Organizations such as Pilkington Trust and Windle Trust have recruited students from developing countries and sustained them through FWS programme. But different countries have different policies. Countries that provide international students work-study programmes are; USA, UK, Canada, Australia, Germany, France and Spain. In developing countries, only students who would like to keep their job jungle between work and studies. Most universities do not have flexible arrangements to accommodate this program even though they may need it funds to pay college. Gunderson (2017) observed that in the United States, international students who received F-1 Visa were entitled to do 20 hours per week on campus and 40 hours on vacation. International students who were offered a Tier 4 Visa to work for a maximum 10 or 20 hours per week during the study period and up to 40 hours per week during vacation. Australia student visa allowed up to 40 hours every two weeks during the study period, and full time while on vacations.

A student in France would be able to work both on-campus and off-campus if they had a residency card. A student worked up to 964 hours during the year with the minimum wage is 9.40 euros per hour. In Germany, students worked up to 120 days per year in a full-time work or 240 days in a part-time work at 6-10 euros. In Spain, international students could obtain a work permit to work up to 20 hours per week.

However, there are countries that are extremely difficult to find a job, for example in Ukraine, Russia, Hungary, Greece, Belarus, Cyprus, and Philippines (Zhang, Worthington & Hu, 2017; Chaos, Hegarty, Angelidis & Lu, 2017). Surely, many students did these intra-marginal jobs to sustain their cost of attendance. Developing countries in general and Africa in particularly Africa need to learn from this experience to widen participation. This is a gap that needs to be closed in the medium and long term. There are many reasons why many students combine study and work.

However, research in multiple reasons why students need a FWS programme: first, it provides students with the much needed income, which may help them to satisfy their consumption aspirations (Baert, Rotsaert, Verhaest, & Omey, 2016). Second, the trade-off between times for studying and time for work is excellently managed (Triventi, 2014). Third, need-based students have a strong propensity to work-study programme than schooling alone. With this orientation, they perceive working as a more fruitful course of action and often dropout along the line if they are not counseled about the future benefit of schooling (Behr & Theune, 2016). Lee and Staff in 2007 theorized that students with low propensities for intensive work, employment may detract them from school and pull them out of school prematurely. But students with high propensities to work, job may not pull them away from school any further.

Finally, a study by Savescu, Stoe and Rotaru (2017) examined working students in the Faculty of Engineering at Sibiu on working students' stress level compared with the non-working students. Eighty students from the third year of studies were interviewed regarding the research topic. They randomly interviewed five working and five non-working students from each of the eight faculty specializations. The results of the study show that the majority of working students face difficulties in school, having low grades or failed exams due to the conflicting balance between family, work and study (FWS). The implication of the finding is that when work-study arrangement is not well corroborated, working students will no doubt experience stress. This in turn affects students' performance and behavior.

The FWS is a very important policy agenda for education policy makers and practioners. Understanding the time spent on homework, frequency of absenteeism, school preparation, college preparations, and work experience is important not only for policy but also measurement of students' performance. It is critical to know whether students pay attention in class, finish their homework on time, get along with fellow students, skip class, and expect to attend college. For this is what is expected of them at college.

Another form of federal gift-aid is Military Community Service Grants (MCSG). In countries such as USA, Canada, Australia and other European countries, MCSG have become a strategy to attract and reward military service personnel for their service to the nation. It is also used to prepare veterans for transition from active service to civilian life. Table 4 provides comparative study of veteran service personnel grants in four countries.

Table 4

Comparative analysis of the veteran community services grants

	Canada	**Australia**	**United Kingdom**	**United States**
Name	Veterans Affairs Canada	Department of Veterans Affairs	Service Personnel and Veterans Agency	United States Department of Veterans Affairs
Population	33,500,000	21,200,000	61,100,000	307,200
Client	220,000	415000	900,000	23,800,000
Annual releases	Approximately 4,000	Approximately 5,000	Approximately 24,000	Approximately 200,000
Budget	$ 3.4 billion	$ 11.13 billion	$ 18.40 billion	$100.14 billion
No. of staffs	3,700	2,100	2,100	278,500
Program support	New Veterans Charter Disability Awards Rehabilitation Financial Benefits Health Benefits Job Placement	Military and Compensation Act Rehabilitation Permanent Impairment Incapacity Payments Special Rate Disability Pension Career Transition Assistance Scheme	Armed Forces Compensation Scheme Lump-Sum Payment Guaranteed Income Payment Career Transition Partnership	VA Disability Compensation VA Disability Pension VA Health Care System Independent Living Program Vocational Rehabilitation and Employment Program Post 9/11 GI Bill

Source: Government of Canada, Veteran Affairs (2009)

As shown in Table 4, the comparative benefits of MCSG are to gain knowledge and enhance the transition to civilian life, and to motivate would-be recruits to join military service community. Non-nationals who enlist in such service are automatically given citizenship. Each country on the matrix varies by client number and programme. The Post-9/11 GI Bill is the most generous MCSG. An eligible veteran has up to 36 months of funding that can be used to attend a vocational or public/private post-secondary school. The veteran community services grants comprises both serving and ex-serving members and covers their families as well in a number of areas; employment, rehabilitation and recognition to assist their re-absorption to civilian life.

However, only a few countries and institutions are reported to have a coherent plan to support their military personnel and families. The type of degree offered and size of beneficiary personnel is often determined by availability of programmes, education qualification and grants. There are also considerable variability across campuses suggested that there was a critical need to coordinate MCSG programme. The support to MCSG is by no means a very important strategy for military personnel reintegration but also necessary for peaceful coexistence among would-be communities.

Hitt, Sternberg, Wadsworth, Vaughan, Carlson, Dansie and Mohrbacher (2015) evaluated MCSG in Indiana, USA. Their interview focused on admissions, financial aid, academic, services policies and programmes. The results revealed that most institutions offered services to students with disability, award credit for military training, and waive re-application requirements after their deployment. It implies that serving in the military might earn prospective students a college credit, tuition assistance or loans. Yet students could serve up to four AmeriCorps terms.

Few countries in developing countries follow this model. There is still a huge gap in literature on the veteran communities' service grants as well as lack clarity on their lay off strategies, retirement counseling and retraining for civilian life. Countries for example, Nigeria, Egypt, Bangladesh, Tanzania, India, Kenya, Uganda, Rwanda, and South Africa have sent personnel serving in United Nations (UN) or African Mission in Somalia (AMISOM) missions. But there salaries and benefit normally does not include after service scholarship programme or how to facilitate their return to civilian life through.

A study by Mamdani (2016) and De Waal (2014) observed that in South Sudan military life permeates all aspects of people's lives. They noted there were deliberate efforts to militarize civilian structures. The veterans do not transition to civilian life but instead move on from one function to another. This has hindered the country's transition from conflict to peace. The proliferation of weapons in the hands of civilians also raises question whether there are professional military service code in the country. The fear of non-reintegration and non-inclusion in schooling has made military service an end in itself and not a crown for the nation. There is need to restructure the policy to accommodate veterans at all levels of the educational ladder and such programmes must be well funded to have the intended effect.

Student loans can be either public if it originates from the government or private if it comes from the private sector. It is, therefore, important to understand how federal students' loans work. Students' loans are designed to overcome the high initial costs of attendance to the students' participation by differing cost. There are two different types of students' loan arrangements: fixed repayment (FPL) and income contingent (ICL).

There is a growing literature on fixed term (or mortgage) loan. FPL is largely practiced in the United State (US). It is called fixed repayments because the beneficiaries are expected to start regular repayment immediately after graduation regardless of whether they are employed or not. This model can generate stress on beneficiaries and can be more expensive if accessed from commercial banks without government grantees. On the other hand, ICL is the type of loan pioneered in Australia and has become popular in many developed and developing countries. It is called contingent because repayment is dependent on students acquiring regular income or job. By linking repayments to income levels, it removes the risk associated with the debts and allows for a repayment once a certain minimum income has been reached (Bekhradnia, 2015).

There is a growing numbers of studies on the pros and cons of the federal students' loans. A study by Mattana and Joensen (2016) explored challenges to students' loans scheme in developed economies. Their study found that coupled with rising unemployment levels and low earnings during the early years of professional life, more graduates were forced to default on their loans commitments early after graduation. This means that most parents do not make informed decision on career choices before access to university. As such, they expose their kids to the ridicule of huge debts and making the achievement of the American Dream nearly impossible.

From the institutional perspective, there is growing evidence that different countries operate different funding models compatible with their social, historical, political and economic situations. The 2015 OECD Education at a Glance Report proposed four models on how different countries developed funding formula to support access and student participation as summarized illustrated in Table 5.

Table 5

Tuition, state subsidies and financial aid in developed countries

Countries	**Intervention Strategy**	**Assumptions**
Denmark, Finland, Island, Norway and Sweden (Nordic)	with no or low tuition and a well develop students' support systems	promotes high demand and supports diversity
Australia, Netherlands, New Zealand, Canada, USA and UK	with high tuition fees and a well develop students' support system	promotes high demand and diversity
Chile, Japan and Korea	with high tuition fees and a less-develop students' support system	low demand and low students' diversity
Austria, Belgium, Italy, Poland, Spain, Portugal, Switzerland, Czech Republic and Mexico	with low tuition fees and a less-develop students' support system	high demand and low diversity

Source: OECD (2015) report

This exposition indicates that there is a correlation between tuition fees, state appropriation and financial aid in promoting students' access and reducing achievement gaps. Higher education is considered accessible, affordable and equitable when tuition fees are not a threat to access across income groups.

In SSA countries, there are a growing number of states that have adopted the pro-poor policy to cushion need-based students as illustrated in Table 2. But access to dual track approach is largely based on merits. As such, it is highly restrictive to students from low-income families as the best performing high schools are urban based and engage students from more affluent communities (Odhiambo 2016; Oketch, 2016). This raises a question as to what difference does the federal loan scheme make for students from low-income families in term of access, progress and attainment.

A survey by Ohio State University (2015) examined how affordability is one of the major obstacles to students' participation. The survey was conducted by a research team from Ohio State University Office of Student Life and College of Education and Human Ecology. The research team surveyed more than 18,500 undergraduate students from 52 four-year and two-year private and public colleges and universities across the country. The results show that 70 per cent of 18,500 students surveyed find debts "exorbitant," "shocking," "staggering," and "crushing". Six out of ten students sampled worried about tuition costs and half of them are stressed meeting covering their day-to-day expenses.

A study conducted by Britt, Canale, Fernatt, and Tibbetts (2015) examined two distinct purposes: (a) what are the predictors of financial stress among college students who sought free peer-based financial counseling from a large Midwestern university (N = 675); (b) the effectiveness of the financial counseling for a sub-sample who seek counseling services (N = 97). The regression analysis was used to measure which group was highly affected while t-test to measure the difference between exposed and unexposed students to counseling sessions.

The regression analysis showed that students with no loan debt were perceived to have low financial anxiety compared to those with high or median student loan debt. The t-test analyses suggested that financial counseling had positive effects on subjective financial knowledge and financial attitudes but mixed effects on financial behaviors. This finding implies that students attitude towards fear of debt could be a deterrent to students' access or success. It could also be sufficient reasons of students' drop out.

In developing countries in general and in SSA countries in particular, there are different types of challenges associated with federal students' loans system according to the following scholars; Orodho and Getange (2015) and Gichuhi, (2015) in Kenya, Masiti, Mwelwa and Mwale (2016) in Zambia, Musa (2015) and Nyahende (2013) in Tanzania. A study by Gichuhi (2015) examined how information channels for recruitment do not serve all students in Kenya, particularly the rural based communities of Nyeri County. He examined how lack of career guidance and inadequate information on financial aid impacts on geographical students and their families decision to attend and attend higher education. The study found that lack of timely information on higher education cost had negative effects on students' decision to what and where to apply and attain university degree.

A study conducted by Masiati (2016) explored how the shift from government bursaries to loan scheme in Zambia affected students' access and participation. The objective of the study was to establish students' reaction on the introduction of loans to cushion need-based learners. A total of 729 students participated in the study. The study found that Zambian students were not opposed to the introduction of the students' loan scheme instead they consider it a cost-effective support to students from vulnerable families.

A longitudinal survey conducted Garwel and Muganga (2015) investigated the effect of cost-sharing on university completion rate for students from low-income family backgrounds in Zimbabwe. It used three cohorts of students in a four years study programme from 2009-2014 and administrative data from Zimbabwe National Council for Higher Education and six public universities. The finding shows that graduation rate decreased by 86% for 2009 cohort, 76% for 2010 cohort and 75% for 2011 cohort. This study confirmed that the introduction of cost-sharing increased attrition rates in Zimbabwe higher education system.

A study by Nyahende (2013) investigated Tanzanian Higher Education Students Loan Scheme. The researchers used a cross-sectional survey. The study found out that students' loan's scheme increased enrollment but the protocol put in place since 1994 was so complex and hindered inclusive growth. Similarly, another study by Musa (2015) pointed out that Tanzania loan scheme was faced with inadequate means-testing target, high rate of default and excessive subsidization challenges, respectively.

South Sudan introduced tuition fees in 2011 without financial-aid to cushion needy students. The government has put caps on tuition fees apparently to keep it low and widen access, retention and completion. The provision of lunch has also contributed the rise in enrollment. However, there are concerns about the difficulties to compute retention and completion rates from the data due to lack of consistency in the available data, poor data storage techniques, high staff turnover, frequent relocations and low motivation (The University of Juba Statistical Outlook, 2016; The University of Upper Nile Students Statistics, 2018).

A comparative case study by Johnstone (2016) provides the summarized opportunities and challenges facing the federal students' loans system in SSA countries. The challenges include: (a) excessive subsidization which implies interested rate is fixed below the government borrowing rates; (b) some countries even charge no interest, undermining the purpose of loans scheme; (c) there are very high rate of defaulters due to inadequate staffing, out-of-date paper recording and no training for staff; (d) there is inadequate or at times fraudulent target or means-testing techniques to determine eligibility which points at corruption in the system; (e) there are also excessively short or at long period for repayment, and arbitrarily loan cancellation making it easy for the system to ignore debt. This is detrimental to the project where money movement in a recycle is interrupted.

This means the major barriers to federal students' loans system in SSA countries is the system and structural issues which require to be fixed in order to make access and intergeneration mobility possible. This is expected to increase efficiency and effectiveness of SSA through: (a) providing adequate information in a timely manner to all beneficiaries; (b) integrating mandatory outreach programmes to enhance career development; (c) improving eligibility criteria through updating students' profiles with their parents' income; (d) the government shaping the way by streamline its bureaucracies to stamp out corruption and marginalization; (e) developing an effective framework disbursement and repayment ensuring that funding goes to the intended purpose.

Although federal students' loans have played an important role in improving affordability and inclusive growth, the change in the mode of financing higher education in South Sudan has not yet captured the relation between tuition, state appropriation and financial aid. This policy and system gap is likely to affect students' access and attainment in both medium and long term. Research has shown that tuition fees without state appropriation and financial aid does not increase the revenue of higher education institutions (Orr, 2015).

In my humble view, conflict or post-conflict countries should not immediately venture into federal students' loans schemes. This is due to the infantine system difficulties. There is need to establish a transparent and accountable institution before venturing in such projects. There are other urgent projects such investment in infrastructures and development of human capital through grants. Loans could allure the communities into early debt traps or debt aversion, which could have negative effect on access and students' academic participation. From the preceding evidence, research has demonstrated that gift aid is more effective in inspiring college access and attainment compared to loans. Block and categorical as well as need-based and merit-aid grants have equally widen students' participation (UNESCO, 2017; McCowan, 2016).

However, merit-based grant segregates by focusing largely on elite cycles. Salmi et al (2014) have argued that the privilege “nations” enroll their children in best schools compared to under-privilege nations. There is agreement among scholars that increased emphasis on meritocracy in school admission may exacerbate inequality (Paulsen et al, 2016) and promote access without success (Tinto, 2012).

A study by Okhidoi (2016) in Mongolia and Mestan and Harvey (2014) in Australia raised concern on the need to create a data based on parental economic status to inform policy. Both studies underscored that a college mirrors the community in which it is located. By glossing over the relation between urban and rural schools, their metrology shows that there was a high level of variation within and across SES sub-groupings that needs to be closed. Therefore, monitoring “who” is participating and “who” is not participating becomes a clear cut out work for educational planners.

On the other hand, loan policy that was expected to be a solution for low-income groups has not always proved to be. A qualitative study by Darolia (2015) examined the loan policy in Chile. The researcher described that loan repayment varied by degree types at baseline. But the selection criterion does not provide incentives for students and higher education institutions as the rising students’ loan has increased the numbers of loan defaulters. Merely creating a dysfunctional loans scheme does not promote post-secondary educational goals. A successful loans project can be measured by its ability to increase enrolment, reduce dropout, increase retention and accomplishment.

Two types of philosophies have dominated higher education funding policies over the years. The debate on whether higher education is a public good or private good has driven higher education discourse over the last five decades. The conversation surrounds who pays, who benefits and who should pay. It supposes that if higher education is a public good then the government should pay. However, if it is a private good, then those who benefit from it should pay (Meyer et al, 2013; Barr, 2010). The third option espoused by this study, is that higher education is both a public and private good. The two kinds of benefits flow in a complementary manner.

Private sources of revenue are an alternative lane of HLI funding. According to Weber (2006) private funders can be students, parents and sponsors, business, donor organizations or individuals. Investment in higher education is driven by the assumption that it contributes to both public and private good. The OECD Education at Glance (2015) indicators A6, A7 summarized the contribution of higher education as in Table 6

Table 6

The public and private contribution of higher education

Economic Growth and prosperity	**Social Development**	**Culture and Civic Engagement**
Economic development	Stronger public finances	Creative practices
High quality of jobs	Quality of public life	Civic and democratic life
Vibrant region	Intergenerational mobility	Understanding Cultures
Individual return	Tackling societal challenges	Integrated society

Private funding also known as alternative sources are viewed as the transfer at least of a portion of higher education cost from government to students and their parents. It involves: (a) the introduction of tuition fees where public higher education was formerly free; (b) the sharp increase in tuition fees where tuition already existed; (c) the imposition of user charges to recover the cost the expenses that were usually covered by government; (d) the diminution of students' grants and scholarship; (e) the increase in effective recovery of students loans;

(f) the official engagement of tuition-dependent private higher education system to absorb excess demand (Johnstone, 2003).

Tuition fees according to Toutkoushian (2013) as the amount of money a student and/or their parents pay as the cost of attending per semester or year. However, if a student receives some type of financial aid in form of loans or grants (scholarships/bursaries), tax credits or tuition waivers, they may not directly pay the published price. The student net price represents tuition minus any financial aid or discounts a student receives. Measuring student net price may get complicated where a student receives financial aid from many sources and for many different reasons.

A study by Marcucci (2013) explains that tuition can be divided into two classes: up-front or deferred repayment. Upfront fees are the most common and the most straightforward. Universities charge fees which student must pay before being admitted or attend a program. Deferred tuition arrangement is a form fees charged by institutions but the student obtains a loan from the government or private sources to covers the full cost. However, they are expected to repay the loan after graduation (mortgage loan) or when they are employed (contingent loan).

According to Bekhradnia (2015), the difference between upfront and deferred tuition lies in the fact that upfront fees refers to fees directly paid as the cost of their studies. Upfront fees underscores that education is not free, and only government reserved the right to waive cost. On the other hand, a deferred fee refers to the types of fees repaid by a student after completing a course. It implies that the beneficiary obtains a loan from government or private service providers to pay for the program, for which he or she is expected to repay after their graduation.

Although tuition pricing receive significant attention in this study, the true cost of attending a post-secondary education was usually higher because it involves both cost of tuition and maintain cost such as cost of boarding, food, textbooks, transport, medicare and recreation. The sum of all these expenses is known as the total price of attendance. Scholars do not usually agree on how much the total price of attendance is. But a study by Toutkoushian (2013) examining the cost of tuition in a public two-year institution in United States is approximately 19% of the total cost of attendance and 40% in public four-year institutions. Cost of attendance is lower in developing economies and much lower in South Sudan.

A weak partnership with entrepreneurial sectors has negative effects on both HLI in general, and students' participation in particular. There is a growing literature on alternative funding mechanism to support students' access and attainment in public universities. Many countries are adopted cost-sharing as a way to foster partnership between the public and the private sector to enhance access and students' participation. The strategy goes beyond tuition fees to scholarship or merits aid, loans, corporate social responsibilities and allowing private universities absorbing excess of demand. It is, however, important that students are cautioned when exploring the private sector options to minimize risk associated with lenders' interest rates and flexibility of the repayment terms. While financial support received influence students' decision to borrow in order to study, the repayment programme comes with a huge amount of debt creating fear for potential students to take loans.

Another form of private funding to support students' financing is university-industry programme. University-Industry Corporation is stable practice in developed countries. A study by Koryakina, Teixeira and Sarrico (2015) examined the link between universities and industry cooperation in Europe. Their study concluded that the wealth of a country is built not by universities but by the business sector. Similarly, academic sector has the responsibility to support the development innovative technology to support the market sector.

However, in developing countries, particularly in SSA countries, University-business Corporation needs to be built and strengthen. A case study conducted by Tumuti, Wanderi and Lang'at (2013) examined the nature and roles of the corporation between Kenyatta University and Equity Bank. The study found that cooperation between the academic and industry was critical to foster competition and requires further nurturing.

In South Sudan, although private universities are emerging, literature on public-business corporations is hardly available. This is because public sector had a monopoly of providing higher education services. There is, however, a growing relationship between business sector and public universities. A benevolent tycoon, Mr. Kiir Gai, contributed unspecified amount of money to cater for 9,000 students' examination in the University of Juba (Monitor, 23 September 2017). This is seen through public-private partnership on lunch vouchers and rent of hostels.

Public-private sector partnership involves some amount of risks and a serious management decision. A study by Dan (2013) attests to these facts. It outlined the advantage of university-business cooperation in number of areas such as human capital investment, infrastructure, intellectual property rights, and legal contracts, funding start-ups and spin-offs, communication, technical innovation and other common projects. The results indicate that university-business cooperation brings recognized benefits to enhance teaching/learning, research and community service functions.

Another source of private funding is donor support. Donor financial support has been a part of education system over the ages. Weak coordination with donors can have a negative impact on both HLI in general, and students' participation in particular. The contributions of donor organizations and individuals have been well documented since the middle ages. External funding is an important source adding the total revenue of higher education institutions. A donor is a person or an organization or a nation that makes a voluntary contribution in form of aid transferred for the benefit of the recipient. Aid to education can be technical, financial, or material (Bekhradnia, 2015).

There are two principal types of donor organizations supporting higher education; bilateral and multi-lateral. A bilateral aid is a direct government to government support. Example of bilateral donors organizations are; France (AFD), Germany (GTZ), Japan (JICA), the Netherlands (Nuffic), Spain (AECID), Sweden (SIDA), UK (DFID), United States (USAID). On the other hand, multilateral aid is described is an indirect government to government aid. It is indirect aid because it is implemented through international agency such as World Bank, European Commission, regional development banks such as the African Development Bank, Asian Development Bank, Council of Europe Development Bank, Development Bank of Latin America, Eurasian Development Bank, Europe Bank of Reconstruction and Development, Europe Investment Bank, Inter-America Development Bank, International Fund for Agricultural Development, Islamic Development Bank and the World Bank Groups (Ministry of Finance and Economic Planning Budget Book 2017).

Private foundations or charities such Bill & Melinda Gates Foundation, Carnegie Corporation, Rockefeller Foundation, Ford Foundation, John D. and Catherine T. MacArthur Foundation, William and Flora Hewlett Foundation, Andrew W. Mellon Foundation and Kresge Foundation have also contributed to higher education goal. There is growing evidence that development partners have sustained education projects in developing countries through funding and technical assistance (Tan, 2014).

2.3.3.2 Students' perception on tuition capping and students' access.

There is a growing debate as to whether tuition fees should be capped or not. Those who support tuition capping maintain that it contributes to greater participation. Those who favor tuition deregulation maintain that government should stay off and let universities deal with issues of tuitions fees. The rationales for cost-sharing even in the face of extreme austerity appear inevitable but under scrutiny.

The opponents of tuition fees have likened education to commodity and students to clients. A study by Bunce, Baird and Jones (2017) analyzed the link between tuition and students' participation. The researchers interviewed 608 undergraduates at higher education institutions in England to establish whether they self-identify as customers. Their study found that there was no research evidence to warrant student self-identify as consumers.

Finland is one of the countries that do not charge tuition fees. Johanna (2013) studied the Finnish higher education system to establish whether students could be identified as consumers because they are clients of education service by paying tuition and fees. The data was presented and analyzed using a matrix of preference. The analysis reveal that student do not self-identify as consumers. On the contrary, the study found that paying tuition creates entitlement not loyalty.

The understanding that education is a consumable commodity has divided scholars into two; those who support and those who disagree. The opponents of the concept reject it on the basis that it is pejorative while proponents strongly back the market orientation philosophy. A study by Melodi (2016), however, attempts to strike the middle ground. It argues that although the analogy may be invasive, the truth is that there is a relation of selling and buying in a cost-sharing approach. Hence, any outright rejection of this fact is an oversimplification. The study recommends that there is need to find a more acceptable terminology

There is still very limited empirical evidence on the description on students as consumers. Although the description draws heavily from the business world, there is still limited research to support the categorization of a student as consumer (Gokcen, 2014). A study by Saunders (2014) views tuition fees as evidence of students' entitlement rather than customer.

But a study by Tomlinson (2017) took a divergent view. He sampled 68 undergraduates to establish whether they self-identify as consumers or investors. The analysis revealed that students from upper income groups viewed themselves more as investors while students from the minority groups considered themselves as active consumers. The study suggested that a student's financial input is positively associated with the learning experience and identity.

A study by Orr (2015) in OECD countries show that tuition fees increase the revenue of HLI if public revenue remains constant or increases slightly. Many colleges and universities are facing the temptations to make money but do not want to call it profit because it might compromises the basic academic tenets and values of education as service. While some aspects of the university can be commercialized including conventional commodities such as branded clothing and rental of space, calling a student a customer is not yet widely accepted terminology.

This is because there is a growing fear that teaching may gradually skew towards courses that have high marginal profit. This could mean that profit is directly targeted even where education is still seen as a service. McCowan (2016) describes this process as 'unbundling', which means the process of selling to consumers only those parts of the university experience that the beneficiaries want or can afford. A study by Selingo (2013) accepts this thesis.

McCowan (2017) unlocks the puzzle by stating that in order to cater for high-income (those with the purchasing power) and low-income students, universities could create a diverse curricular avail at a range of prices to accommodate stratified system. This sounds like a compromise between commodification and service. But does not answer the question what is the price worth of wisdom. Policy makers must watch such development with caution as some "consumers" will be unable to purchase even the cheapest products. Furthermore, costing certain products may drive up demand even if the real cost of 'commodity knowledge' is hard to measure.

Based on the above analysis, it can be said that students in HLI do not self-identify as consumers because knowledge is not viewed as commodity for sale. Most authors do not think the naming fit education services. But the discourse highlights how commercialization is creeping into education domain as some aspects of campus experiences can be clearly identified as profit making ventures. If everything in the University was for sale, then tuition fees alone may not be the right price. A student cannot simply be a loyal customer because this ignores his/her effort in the pursuit of knowledge.

2.3.3.3 Tuition deregulation and students' participation.

There is a growing debate as to whether governments should cap tuition fees for HLIs. In recent years, delays and decline in state appropriation have made administrators in public colleges and universities to demand from government the locus of authority to set fees in public universities. But many public colleges and universities remain subject to state control and regulation.

Deregulation of tuition fees involves the relaxation of existing regulations that gives the state authority to set fees in the public universities. This in essence permits higher education institutions to determine their own tuition price, adopt their own admission policy, design their own curriculum and develop their own human resource management. Those who support this view argue that deregulation fosters competition between suppliers, leading to a better price and quality control. It also allows colleges and universities to be more diverse. The differences within the American higher education sector provide an excellent case-study for evaluating the effects of deregulation on students' participation.

A study by Kim and Ko (2015) analyzed state efforts control of tuition fees over the past 10 years. Using data from 50 states and 4 year 540 public universities and colleges, the researcher examined the locus of authority to set tuition price. Their findings revealed that institutions which link tuition with financial aid and state appropriation offer low sticker price compared to those who depended entirely on tuition fees. It also found out that tuition was more likely to increase where individual institutions had the authority to set tuition fees. This indicates that the rationale to keeping tuition fees low is to promoting access to students from low-income families.

A study by Gary (2014) examined how the University of Iowa and the University of Florida broke such impasse. They found that combining targeted subsidies with a flexible tuition structure and decentralized budget processes could increase enrollment, reduce average tuition, increase welfare, accommodate lower taxpayer support and still keep the state in control with no incidence. But different countries, however, have different experiences.

Similarly, the 2012 OECD Education at Glance indicates that United Kingdom tuition fees are uniform, and centrally determined by the government for regular full-time European Union undergraduate students. However, universities are free to set their own prices for part-time students and for non-European Union overseas students. In the US, both public and private schools and colleges are allowed to set their own tuition fees.

A global study conducted in 2011 by Marcucci (2013) outlined that out of 132 countries surveyed three major tuition fees policies were adopted. This includes: (a) charge no or nominal tuition fees; (b) upfront tuition imposed for all, and; (c) established dual track tuition policy. The investigation shows the difference in tuition policies for public higher education among nations of the world. Out of 132 participating countries, the majority of 82 charge tuition fees, 41 charges upfront, ten 10 defer tuition fees, 33 dual track while 49 charge no or nominal fees.

The study also examined tuition fees strategies by region. Out of 22 Asian countries involved in the study, only four practiced nominal tuition fees, 15 dual tracks, 13 upfront and nine differed tuition. In Europe, three categories were evenly divided but 12 charged up-front, 2 defers and 14 dual track and 14 charge nominal or no fees. In Latin America, 9 out of 13 countries which participated in the survey practiced no or nominal tuition fees. In Africa, out of 43 countries in the survey, 11 pursued up-front, 6 defer tuition, 14 dual track and 19 charged no or nominal fees. While this study identified tuition programmes by countries and region, it does not however, tackle what students think or feel about these models and their affordability.

2.3.3.4 "Free" higher education and students' participation.

There is evidence on the rationale for maintaining cost-sharing in countries facing extreme austerity or where government does not provide financial aid students from low income families. For such students tuition fees create a barrier to access, yet for HLIs it is an inevitable pathway to diversify revenue (Orr, 2015). But should higher education be free.

A study by Wiers-Jenssen (2019) evaluated the puzzle why an increasing number of international students choose Norway. The country had experienced an upsurge of international students between 2000 and 2015 compared with many other countries. At first glance, this may seem paradoxical considering that Norway is a country with few well-known universities, a high cost of living, and a geographical location on the northern fringe of Europe. More students find their way to Norway for varied reasons: (a) there is a global trend of increased student mobility to EU countries; (b) courses taught in English are more important in cementing partnerships with IHL abroad, and; (c) tuition fees courses in state-owned universities and colleges become a comparative advantage in an era when institutions in other countries are introducing or increasing tuition fees for national as well as international students.

The demands for free higher education and other social services such as health and basic education have risen in recent years at a time when public allocation is declining globally. Increasing debt burdens has made loans projects unattractive. Some governments for political expediencies have also encouraged the perception that the state can exclusively provide "free" higher education. As such, the call for "fees must fall" has increased in countries like South Africa (Wangenge-Ouma, 2012).

Other grounds for free higher education include: (a) social justice: increasing higher education access for the poor, especially previously marginalized communities, in the face of increasing tuition fees, and (b) growth externalities due to present tuition fee regimes (United Nations General Assembly, 2016). In the past, the main premise for demanding free higher education was the shortage of high level of skilled personnel. Hence, free higher education was deemed necessary to get human capital investment.

Mitchell (2018) examined why most countries fail to tackle unequal access to higher education. The survey explored 71 countries to find out which national higher education policy documents referred to equitable access and success in higher education. It also looked at which governments set targets for participation and success for students from specific equity groups and which had strategies and plans in place to address inequalities. Consultations with key global or regional inter-governmental agencies were used as the strategy to establish whether governments have policies to address inequalities in higher education, and if resources are allocated to work in this area.

The results revealed four equity policy categories: (a) nine emerging countries were formulating broad equity policy principles and goals, but accomplished little in terms of concrete policies, programmes and interventions; (b) 33 developing countries with the foundations of an equity promotion strategy, but which had not defined many policies and programmes or invested much in this area; (c) 23 established countries which had an equity promotion strategy and had put in place aligned policies, programmes and interventions, and; (d) six advanced countries which had implemented a comprehensive equity promotion strategy, with some even having a dedicated equity promotion agency.

Among all the countries surveyed, Australia, Cuba, England, Ireland, New Zealand and Scotland stand out in respect to their policy commitment to providing equal opportunities of access and success in higher education. Low-income students and students with disabilities are the two equity key target groups most often included in higher education policy documents, the survey found, with gender equality and the needs of members of ethnic minorities also often being mentioned.

Some scholars have, however, expressed doubt on free higher education because it engenders inequality. Langa, Wangenge-Ouma, Jungblut, and Cloete (2016) examined the stand-off between administration and students call for free higher education for all in South Africa. Their analysis revealed that one of the unintended consequences of free higher education is that it engenders gross inequities. First, making HLI free where the lower levels of education (especially secondary education) were not always free only serves to leave out those who cannot afford. Second, where the quality of public education declined, children of the elite opt for high-cost and, in some cases, exclusive private schools, only to re-appear for public university education in prestigious programmes for free. This implies that free higher education is built on inequitable social structures which reproduce and reinforce inequalities.

The cost of tuition has set the difference between private and public universities. There is a growing debate on whether there is any difference between public and private universities in respect to tuition fees? A study conducted by Eides (2018) examined the difference between middle-tier and elite private institutions. The researcher analyzed how small mid-tier private schools charged modest endowments, and after decades of tuition hikes comparable to those of their elite peers. The result indicated that by hiking fees private schools took a high risk of pricing themselves out of the market.

This is a common phenomenon among struggling colleges. They become less selective in admission as they enroll more than half of all applicants who may not meet the cost of their education in time without help. Less-selective colleges generally command fewer financial resources than their more-selective peers. As such, this exert pressure on beneficiaries who either dropout or withdraw due to affordability issues.

These findings reveal that the biggest fundamental difference between public and private colleges is tuition pricing. There is strong evidence that by charging less tuition fees public university creates equal opportunities and outcome for less privilege members of the society. This translates into a higher rate of admission. Private institution serves a very small and exclusive population. Students' choice is always dictated by financial situation (Marcucci, 2013).

Tuition has been an enabler and disrupter for most students from low income groups. Tuition has too often turned into the balance-wheel of state finances, the lever educational policy makers would pull every year to find some answers to their funding dilemma. The move towards a more "progressive tuition model" will in future determine whether students will either choose or become college averse. To mitigate the tuition onslaught, educational policy makers must endeavor to keep college accessible, affordable and equitable to all.

The major difference between private and public universities lies in their funding sources. While private universities depend basically on tuition and fees, public universities depend on both tuitions fees and appropriations. Subsidies tend to lower cost substantially. This explains why private universities are less excited about government control of fess. However, when tuition pricing is driven purely by the thirst for revenues, inequality in access increases. The irony is that public institutions do not meet the inclusion mark because of the declining state grants. Notwithstanding, students and parents espouse government control for fear that without such control tuitions fees in both private and public institutions will run out of control.

2.3.4 Food Insecurity among Diverse College Students

Food insecurity is a growing problem among college students, but little is known about how it is related to academic outcomes. Often times, this problem can go unnoticed, especially since measuring student hunger requires either students to self-report or stigma around being unable to meet basic needs which keeps them away or dropping off from seeking education. In this context, federal food assistance is viewed as a vehicle to move beyond traditional subsidence needs to widening students' access and success in college/universities.

Theme IV analyzes how access to food impact students' mental/bodily health and academic participation. It focuses on the following sub-themes: rationale for food aid at campus, eligibility requirement, funding of campus food assistance programme, federal law or policy governing the implementation of food aid, and how already available federal resources can address the comprehensive affordability challenges facing today's students.

2.3.4.1 The rationale for food for education programme.

In many poor households, hunger has been a barrier to school enrolment. A hunger stricken child is not only unable to enroll in school at the right age but are also unable to focus properly even if enrolled. Such children quit school to join their parents to deal with their immediate subsistence needs. As such, the level of education attainment has been low among the hunger stricken households. Hunger has been associated with poverty and low-income.

A mixed method study by Maynard, Meyer, Perlman, and Kirkpatrick (2018) elicit barriers to food security, strategies used to manage food and money shortages, and perceived implications for health and academic achievement in Canadian post-secondary education. Surveys and in-depth interviews were conducted with 14 students who demonstrated compromised financial access to food. Students were asked to describe how their experiences of food insecurity, anxiety and frustration with financial affect their accessibility to healthy food. They were also asked to enumerate its negative implications on their physical and mental health and their ability to perform well in school. Results show that students' attempts to adjust to food insecurity had limited success. But students from low-income groups tend to normalize the lack of access to healthy food during higher education. This implies that food insecurity has effects on students' mental health and academic achievements.

The issue of food security can be more gruesome among the freshmen. A study by Bruening, Brennhofer, Van Woerden, Todd, and Laska (2016) examined factors related to high rates of food insecurity among diverse urban college freshmen from Arizona State University and the University of Minnesota. Of the 209 freshman who participated in the study, 32 percent reported food insecurity in the previous month and 37 percent reported it in the previous three months. Students, who rarely consumed breakfast, rarely ate home-cooked meals, and those with higher levels of depression were significantly more likely to report food insecurity in the past three months. This study suggested that a high proportion of college freshmen living in dormitories at one of the nation's largest public universities did not have adequate food and were more likely to report health problems such as anxiety and depression.

Social protection interventions have been used as a poverty reduction strategy in many countries and justification for implementation of food programme in most developing countries. Adekunle and Christiana (2016) analyzed the effects of school feeding programme on enrolment and performance of public elementary school pupils in Osun State, Nigeria with a view to determine its effects on school enrolment, retention, and academic performance of the pupils. Using a survey research design and obtained its data from primary and secondary sources. The primary data were obtained through a structured questionnaire administered on116 respondents in 10 randomly selected public elementary schools in Osun State. The questionnaire was complemented by in-depth interview of 23 purposively selected officers involved in the implementation and monitoring of the school feeding programme. The retrieved data were analyzed using descriptive statistics.

The results showed that 87 per cent of the pupils were fed daily through the school feeding programme, which is funded through cost sharing between the State and local governments. It was also found that the school feeding programme in Osun State has resulted in an increase in pupils' enrolment (78.4%), retention (44.8%), as well as regularity (58.6%) and punctuality (69%) in school attendance. It has also enhanced the pupils' performance in curricular and extracurricular activities (55.2%). The major challenges were found to be insufficient funding (62.2%), insufficient classrooms and furniture to cope with increase in enrolment (60.86%), heavy workload for teachers (60.86%) and lack of effective monitoring and evaluation system (60.86%).The study concluded that the School Feeding Programme in Osun State has increased the enrolment and improved the performance of elementary school pupils in the state.

A survey by Drake, Woolnough, Burbano and Bundy (2016) in 14 high income countries established that the rationale for food security college programmes (FSCP) have been to tackle the rising levels of obesity. However, in selected middle and low-income countries such as Ghana, India, Kenya, Mali, Rwanda, Brazil and India the researcher observed that the rationale for FSCP vary from country to country as shown in Table 7.

Table 7

Rationale for the national school Feeding programme in selected countries

Country	Policy Objective
Ghana	Tackle poverty, improve nutritional status of communities, increase enrollment and attendance
Brazil	Reduce the number of malnourished children, improve enrollment, address issues of overweight and obesity
India	To improve the nutritional status of schoolchildren and improve enrollment and retention
South Africa	Contribute quality of teaching and learning through the provision of nutritious meal
Kenya	Increase enrollment, attendance, and retention in targeted Arid and Semi-Arid areas. It aims to increase the overall literacy attainment of
Mali	Increase enrollment and retention
Rwanda	Increase access to education in the short-term and quality of education in the medium and long term

Source: Drake et al (2016)

The rising price of higher education and its implications for equity and accessibility have been extensively documented, but the material conditions of students' lives, particularly food security, are often overlooked. The rationale for food security at campus is to enhance social protection, health, boost college access and graduation.

***2.3.4.3 The implementation of food security college programme*.**

There is a growing evidence and models on the management of school/campus food response programme. Food security college interventions can take several forms: (a) feeding the learners on site or in school/college; (b) take-home rations, where families are given food if their children attend school, and; (c) a combination of both, where learners receive in-school meals as well as a take-home rations are provided, particularly for most vulnerable students, including girls and children affected by HIV, to generate greater impacts on school enrollment and retention rates and reduce gender or social gaps.

These models may be decades old but they are still prevalent in food security services. Since there is no ‘one size fit all’, different institutions have used one or a combination of two or more approaches. These programmes can either be owned or administered by international organizations or directly by governments. Partnership in food security is now an emerging trend. Food programme can be national if it covers the whole country or if it is targeted to a special region or areas in a country.

Drawing from Drake et al (2016) comparative study of 14 countries across the globe, programme managed directly can be found in South Africa, Mali, Namibia, Cote d’Ivoire, Ecuador, India and Kenya. Programme administered by international organizations such as the case for Brazil, Cape Verde, and Chile. There are also programme run through a partnership between a national government and international or non-governmental organizations with each party taking care of an aspect.

Effective management of college food security interventions is measured through the following three common features of institutional arrangements: (a) there must be adequate planning and technical support at both the national and sub-national levels; (b) there must be effective co-ordination to support cross-sectoral linkages. Brazil and Kenya have been particularly successful in the sense, and; (c) there must a monitoring and evaluation mechanism to help identify common weaknesses that may be require shift response.

A study by the African Union, World Food Programme and Economic Policy Research Institute (2018) synthesized the outcomes of and multi-sectoral returns from school feeding in AU member states meeting. The study relied on both secondary sources, as part of a structured desk review, and primary data, as qualitative research to construct a high-level landscaping of the state of school feeding in the AU. The study provides a conceptual framework to link school feeding to continental Agenda 2063, and CESA 16-25, and international development agendas SDGs Target 2. The analysis revealed that almost all food programme in AU countries: target primary school pupils, based on geographically assessment of vulnerabilities; some programme serve in-school meals while others are take-home; usually accompanied by complementary health and nutrition interventions focusing displaced persons, deworming and micronutrient.

2.3.4.3 Food security college programme.

There are limited studies on funding food security college programme (FSCP). The exiting practices take different forms of funding approach. It can take the form of; direct food based programme, free school vouchers or school supplies, subsidies for transport, conditional cash transfers, fee waivers and exemptions for health. Food security in developing countries is largely supported by humanitarian organizations. However, there are incidences where the national governments directly and fully sponsor as either a prelude to international intervention or national intervention in itself.

The Kenya, the home Grown School Feeding model for FSCP is also built on the same philosophy. The government purchase food from local communities to keep down costs and support agriculture. Funds for food procurement (budget fixed as Ksh. 7 per child per day) are channeled directly from Ministry of Education to dedicated school bank accounts and school committees purchase food. Another method of school feeding programme is the purchase of food by the government then it is distributed to schools at the beginning of the term central processing (Murungi, 2012).

A study by Babyesiza (2015) examined how Sudan government financed food project in Southern Sudan public universities before independence. Result showed a partnership arrangement between government and private sector institutions known as Student Welfare Association. The study indicated that government funded higher education food programme with support from Islamic Zakat: Islamic charity tax mechanism, with the mission to Arabize and Islamize the people of Southern Sudan and Interior of Africa. This arrangement supports access and academic progress but also illustrates that food can be used as an instrument of control. The approach provides full meals plus boarding for students across the country.

2.3.5 Barriers to Higher Education Growth and Inclusion.

Agenda 2030 calls for higher education to be more accessible, affordable and equitable to all, particularly those from marginalized backgrounds. But what are the challenges to higher education funding world-wide. Theme V identifies barriers to students' access-success, affordability, and inclusion for all, particularly to those from under-represented groups. It also highlights issues linked to alternative funding tuition policies and hunger food security college programme.

2.3.5.1 Barriers to higher education access-success.

While in most developed countries, students have access to alternative funding, there is still a lot to be desired in developing countries. Scholars have classified them into two main parts; monetary and non-monetary factors. Monetary factors relates to financial barriers to PSE.

On the other non-monetary factors refer all none financial factors affecting students access-success. For example, a study by Kurt (2019) analyzed how language barriers, limited technological resources, and prevailing American-centric or Eurocentric designs and mindsets often exacerbate the very issues of accessibility and exclusivity in Turkish college students from a large state-sponsored metropolitan university. Results suggest that language, technology and mode of delivery can undermine democratization and multicultural nature of their user communities. This study shows that funding was not the sole factor affecting access-success.

2.3.5.2 Barriers to inclusion in higher education.

There is a link between socio-economic conditions and inclusion in higher education. One of the biggest threats to epistemic access-success is poverty. The condition of poverty is pervasive worldwide and is multifaceted in its ability to have a deleterious generational impact. A study by Liu, Ku and Morgan (2019) observed that although China has greatly reduced the proportion of people living in abject poverty over the past three decades, there are still millions of families living in extreme poverty.

Their study investigated the influences of families' socioeconomic status on students' educational achievement in China with regard to the National College Entrance Exam scores and subsequent college enrolment. They interviewed 132 recent high school graduates from schools in six urban cities from low SES. The findings revealed that school climate (general school quality, student-teacher interactions, and peer pressure) and home environment (parental support, student-parent relationship, and family size) negatively impacted their educational achievement. Students were cognizant that the schools they attended did not have the same high reputation as schools attended by their more affluent peers and felt that their teachers openly discriminated against them. Additionally, their parents did not have the time or financial resources to help them advance educationally. The study indicates how low-SES conditions influence on their scores in national exams and ultimately their result and enrollment.

Another study by Jinlian, Guochuan, Hua and Hearst (2016) investigated advantages and disadvantages for higher education of the Chinese dual track system on education access-success. The analysis revealed that China opening up has provided an opportunity for the development of the private sector led higher education. But the downside of the reforms on students from low-income families was lack of inclusion. As educational opportunities increase for the elite, commercialization of higher education denied the low-income groups access-success.

Lamprianou, Symeou, Theodorou (2019) examined how consistent family support improved higher education (HE) students' chances for adjustment and graduation in Cyprus. The study examined the link between family ‘support’, 'involvement' and 'over-involvement'. Using a survey of two universities in Cyprus, their study shows that family involvement in higher education is better conceptualized and operationalized as a continuum. The study found that students seem not only to approve, but also encourage more family involvement (even 'over-involvement'), and state that they would like their families to provide them not only with more financial help, but also with more emotional support. This study implies that giving money should not remove parental emotional support.

Students from developing countries in particular face considerable obstacles that hinder or outright prevent their enrollment in and completion. A study by Drajea et al (2016) identified how parental level of education and family income influence their children’s education in rural Uganda. The findings concluded that there was a significant relationship between parents’ income and literacy levels and the quality of support offered to children’s education. Household poverty emerged as a major obstacle to educational access-success among the low-income groups compromised by lack of time and parent-child-school interaction.

A study by Erica, Jeffrey, Constance, Nadine, Albert, and Simon (2016) conducted in Zimbabwe confirmed that there was a link between parental education, class and income and their children's achievement. Using data collected from 1998 to 2011 in a general population cohort study in eastern Zimbabwe, they described education trends and the relationship between parental education and children's schooling during the Zimbabwean economic collapse of the 2000s. The finding showed that girls child suffered disproportionately compared to boy child. However, female enrolment increased as the economy began to recover while children with more educated parents continued to have better outcomes and opportunities to study abroad.

2.3.5.3 Campus food programme and governing policies

In many countries food insecurity is addressed as matters of emergencies with no legal and regulatory framework. Food is provided in school/college or taken home as rations, where families are given food if their children attend school. The lack of policy framework on who does what, when, where and how has made addressing food security at campus difficult if not impossible.

The challenges of hunger, food insecurity and malnutrition in all its forms feature prominently in the second Sustainable Development Goal (SDG) also known as Agenda 2030. Target 2.1 ensures that access to safe, nutritious and sufficient food for all while target 2.1 endeavors to eliminate all forms of malnutrition. All development goals will be hard to achieve if SDG Target 4.3 is ignored. This goal calls on all members to ensure that higher education is accessible, affordable and equitable to all, especially those from the less fortunate background. But capacity building can also be threatened if food as the basic need is not met according Abraham Maslow.

Evidence continues to signal the rise in world hunger. According to available data, the number of people who suffer from hunger has been growing over the past three years, returning to levels of a decade ago. The absolute number of people in the world affected by undernourishment, or chronic food deprivation, is estimated to have increased from around 804 million in 2016 to nearly 821 million in 2017. The situation is worsening in South America and most regions of Africa but decreasing in Asia. This can not only help in achieving Targets 2.1 and 2.2 but also Target 4.3 (FAO, IFAD, UNICEF, WFP and WHO, 2018).

2.3.6 Improving Equal Opportunities and Outcomes.

Unequal opportunities and outcomes is one of the major challenges hindering the higher education access-success. Theme VI explores how different countries respond to the issues of equal opportunities and out outcomes for all. Agenda 2030 of the United Nations calls on countries to make quality higher education accessible, affordable and equitable to all, particularly for those from less wealthy communities.

2.3.6.1 Tackling challenges to students' loan scheme.

A number of countries have adopted affirmative action to boost access-success for the historical disadvantaged students such as female and challenged differently. Low-income and less-affluent students are offered loans. But a number of studies in Kenya show that low-income, rural, ethnic minorities and women were not receiving adequate information on the loan scheme from the Kenyan Higher Education Loans Board (Odhiambo, 2016; Gichuhu, 2015).

A study by Masiati (2016) examined the shift from government bursaries to loan scheme in Zambian higher education system. A total sample of 729 students was sampled in the study. The result shows that although the Zambian students' loan scheme was the right approach of assisting the most vulnerable groups, the system needed to be improved.

A study conducted Garwel and Muganga (2015) investigated the effect of cost-sharing on university completion rate for students from low-income family backgrounds in Zimbabwe. A longitudinal survey incorporating data from three cohort embarked on a four year - study from 2009-2014. Administrative data from Zimbabwe National Council for Higher Education involving six universities were used in the study. The finding shows that graduation rate decreased by 86% in 2009 cohort, 76% in 2010 cohort and 75% in 2011 cohort. This study confirmed that cost-sharing increased attrition rates in Zimbabwe higher education system. It suggested that there was need to adopt a need-based financing approach to enable students or country achieve high completion rate.

Cumbersome eligibility procedure has also been cited as a factor contributing to inequality in higher education access-completion in SSA countries. A study by Nyahende (2013) examined the effect of Tanzania Higher Education Students Loan Scheme on students' access-completion. Using a cross-sectional survey, the study disclosed that although student loan scheme had increased enrollment, the protocol put in place since 1994 was so complex and insensitive to inclusion. Another study by Musa (2015) confirmed that the challenges to students' access-attainment to loans in Tanzania were largely hindered by eligibility criteria, high rate of default and excessive subsidization.

A comparative study by Johnstone (2016) summarized the problems of student loan scheme in SSA countries. Using country specific literature, the study identified six critical structural challenges facing students' loan programme in SSA states. This include: (a) excessive subsidization which undermines recovery of the capital cost; (b) high rate of willful default due to weak administration system; (c) imprecise means- testing thereby providing opportunities for fraudulent beneficiaries; (d) short repayment period which could lead to unnecessary high monthly repayment cost; (e) inefficient programme administration due to political patronage leading to loss of fund; (f) excessive debt cancellation, granted easily for mere political expediency.

South Sudan introduced tuition fees without financial-aid to cushion need-based students. While government regulates tuition fees and introduces measures to address food insecurity at campus, there are still challenges facing equity with respect to low-income students, female, first-generation, geographical and students from large family structures. The absence of financial aid has been cited as the leading and followed by protracted fragile, conflict and violent context for teaching (Garang et al, 2017).

Tackling issues of equity has never been a walk in park for policy makers. Ethiopian Higher Education Revitalization Programme widens access but fail to narrow the gaps between social groups. Studies by Kroth, (2012), and Molla and Gale (2015) disclosed that while enrolment in Ethiopian had doubled since 2000s, the enrollment gaps have persisted along ethnic, gender, rural and socio-economic background. This implies that expansion without inclusion was not the right option and tantamount to access without equity.

Mestan and Harvey (2014) in Australia took the discourse on equity further by coining the term called "higher education continuum", a process where educational leaders monitor at different points or levels of the continuum monitor not only “how many students participates” but also “who is participating”, what are stakeholders doing to mitigate the situation. Similarly, where affirmative action is involved, Meyer (2016) cautions that educational leaders need to periodical monitored and evaluated on a periodical basis to ensure that issues of equity is not tempered with. Finally, Temkin (2016) advocates of affirmative action should not get carried out or entangled in gender stereotypes, where the success of one gender type is obtained at the expense of the other.

Therefore, creating equality of opportunities and outcomes is the critical role of educational policy makers, planners and practitioners. It is important to fighting poverty and making quality higher education accessible, affordable and equitable to all, particular those from the under-represented groups. Educational leaders must endeavor to prevent personal or social circumstances such as gender, ethnic origin or family background from creating obstacles to students' access and success (Salmi & Bassett, 2014). Similarly, improving an environment of learning in FCV contexts is important to develop human capital for development and peace.

2.3.6.2 Reforming funding policies as a matter of social justice.

Scholarship is a gift aid to financially needy students while bursaries gift aid is awarded to students on basis of exceptional performance or other talents. Both pro-poor gift and achievement gift do not have any strings attached (Sarah, Cohodes & Goodman, 2013). While need-based aid is an award to students who demonstrate need, merit aid for exceptional performance irrespective of family income. But critiques of merit-based aid claim it is discriminatory and targets elites in the name of using outstanding performance.

A study by Sjoquist and Winters (2016) supported this view. The researcher found that state merit aid programme only induce a small number of students to attend out-of-state schools ranked among the top 15 whereas the majority of students forgo these quality institutions based on the same quality criteria. Hence, elite institutions are highly priced as a way to maintain a small intake.

Some studies consider access to all a matter of social justice. Custer (2018) highlights concerns on access of diverse groups of students in U.S. higher education. The author cautions educational policy makers to reconsider policy barriers as matters of social justice. Justice implies students who face unique challenges on our campuses but are often ignored in discussions of access, retention, and success. The study draws the attention to the federal, state, and institutional policies that target justice in relation to college students with special reference to policies related to admissions, financial aid, campus housing, student employment, student athletics, and others.

2.3.6.3 Coordination and mobilization of alternative funding.

Until recently, public higher education system was financed substantially by government through taxpayer in most countries. According to Johnstone (2015), there are five sources of funding in cost-sharing policy: government, donor, business, students and parents. Each source increases the total revenue of higher education and improves the effectiveness and efficiency of higher education institutions to response to students' demands.

There is increasing evidence that there is an increase reliance on tuition fees and less and less support from the business and donors to public universities in developing countries. At times, there is a weak or lack of coordination of alternative funding either due to capacity reasons or growing investment in private education. This has shifted excessive burden of higher education on students and their parents. The overall effect is felt by students from low-income families who alternatively could choose low cost courses or drop out altogether if they are already enrolled.

Toutkoushian (2013) argued that the cost of attendance includes both the amount of money students and/or their sponsors pay as tuition fees (academic cost) and maintenance cost, which is the cost students and/or their pay for other services such as registration, examination, board, transport, feeding, boarding, and library. Students may receive some type of financial aid in form of loans or grants (scholarships/bursaries), tax credits or tuition waivers to meet these costs or directly pay the published price themselves.

Most universities have become increasingly innovative in mobilizing funding to run their semester programs. They may ask students to pay the cost of attendance upfront or pay by installment. Odhiambo (2016) and Marcucci (2013) explain that tuition can be divided into two classes: upfront or deferred repayment. Upfront fees are the most common. Universities charge fees which student must pay before being admitted or attend a program. Deferred tuition arrangement occurs when tuition fees charged by institutions to student who obtain either federal or private proprietor loan to cover the full or partial cost of their studies. However, they are expected to repay their mortgage or contingent loan after graduation.

While emphasis is put on tuition in this study, the true cost of higher education is usually much higher than the cost of tuition fees. There is no agreement on what is the true cost of higher education since each country publishes its own sticker pricing. Toutkoushian (2013) examining the cost of tuition fee in a public two-year institution in U.S. estimate it constitute 19% of the total cost of attendance. But tuitions fees may be low than 10% of the total sticker price in developing countries and much lower in South Sudan. Such income is important because it provides alternative source of revenue.

While private source of funding has revolutionize higher education system, many educational scholars express fear that private sector funding is either driven by the desire to making higher education a commodity or profit-making venture. Tanya (2014) rejects outright the increasing commercialization of higher education and any attempt to making education as a market place. But with government funding an ever dwindling public sector support higher education it difficult to completely fight this neoliberal approach to education funding which encourage all those who benefit from education should make their contribution to its progress.

There is also need to develop a strong partnership between the public and private sector in supporting university education. Measuring the contribution of donation access-attainment in public universities has never been direct and easy. But there is growing evidence that development partners have sustained education projects in developing countries through funding, material and technical assistance (Tan, 2014). On the other hand, stamping out the desire to make profit on investment by the private sector is equally difficult unless there are clear regulatory frameworks.

2.3.6.4 Reducing food insecurity in college and university.

The reduction of food insecurity at campus requires mobilizing all sectors involved with higher education. Higher education stakeholders need to conduct a systematic analysis of the prevalence of food insecurity on their campus, and develop college based initiatives to reduce its impact on students. School or college meals have received increased policy attention because meals relieve short term hunger, improves nutrition, health and academic performance for students from low-income backgrounds. There is considerable evidence that nutritious food is important for cognitive functioning and academic success (WFP, 2017; Chaula, 2015). Colleges and universities ought to have established task forces to coordinate and oversee advocacy initiatives around meeting the basic needs of the students.

Colleges need to establish an innovative approach to address food insecurity. Studies have suggested establishing linkage with community food banks, pantries, food recovery programme and building campus community gardens. In 1993, Michigan State University established the MSU Student Food Bank, the first campus-based food assistance programme in the nation. More than two decades later, Michigan State University partnered with the Oregon State University Food Pantry to establish the college and university food bank alliance

Establishing on-campus food resources, food vouchers, and food scholarships could be significant steps forward in providing food assistance to students in need. To enjoy maximum benefit from this initiative, colleges and universities must target the most vulnerable of the students' fraternity. There is growing body of research on vulnerability analysis. Studies by Wekesa (2015) and Murungi (2017) in Kenya argue that school/campus food programme target the most vulnerable students in arid or semi-arid areas rather than provide a blanket cover to address inclusions.

A study by Salmi et al (2014) also confirms that extreme poverty restricts households from sending children to school due to the fact that their day to day survival leaves them with no other resources to invest in education. Consequently, such households cannot provide children with the opportunity to go to school and learn. For this category, even if some costs of schooling are made free, they may not have the means to cover costs for books, clothes, shoes or transportation.

More colleges and universities should develop initiatives to help low income students more easily navigate and access government food assistance programme to supplement their financial aid. Institutions should also develop strategies to decrease the stigma that may prevent students from accessing needed resources to alleviate food insecurity on campus.

There is no issue as worrying to students and/or their parents as the issue of equality of opportunities and outcomes. This has contributed to cost benefit, liquidity constraint and debt aversion barriers, which affect both traditional and non-traditional students. Studies have shown that cost is an important factor in the conversations on students' access-attainment (Zhang, Worthington, & Hu, 2017; Chao, Hegarity, Angelidis & Lui, 2017). But they are by no means the sole factor affecting students' participation (Armani, 2016; Dixon & Humble, 2017). Other non-monetary factors affecting students' behavior includes: students' commitment to the goal, parents, peers and teachers support, the way IHL market themselves and programme (Suh, 2013). Information communication technology has significant impact on decision to buy or not an educational service (Gundersen, 2017; Carley & Babb, 2015).

2.4 Summary of Reviewed Literature and Knowledge Gap

From the review of conceptual and empirical evidence, there is a consensus that investment in higher education benefits both individuals and the state. Similarly, there is also a unanimity that cost-sharing is a ubiquitous mode of alternative funding of HLIs. Yet one of the major impediments to students' participation is cost. Studies indicate how cost affects the numbers and composition of students across income lines (Paulsen et al, 2016), how students movement is influence in part by affordability (Wachira, 2017; Chao, Hegarity, Angelidis & Lui, 2017), debt aversion is a hurdle even where financial aid is available (Johnstone, 2016).

Family circumstance can positively or negatively influence students' participation. There is a significant body of research confirming that the influence of parental socio-economic status affects students' performance. But different states have put in place different measures to mitigate the effect of students' net cost on students. Education at glance in OECD countries (2015) divides countries into four categories depending of the type of interventions. Countries that offer "free" as Nordic states and those who synchronize effectively tuition with state appropriation seem to demonstrate affordable and inclusive access to HLIs. However, in countries where there are no financial aid programs, students from low-income families, female, first-generation, rural-based, and large family structure still continue to face formidable challenges to access HLI (Valente, 2017; Eshetu, 2015; Al-Matalka, 2014).

Despite growing evidence that tuition fees is paid in public universities, there is still limited literature on why HLIs are not given the autonomy to set fees. In the majority of cases, governments are still maintaining power to regulate tuition caps (Eides, 2018; Bunce, Baird & Jones, 2017). Similarly, there is growing literature on the influence of food security on students' access. There is a still limited literature on the influence of food insecurity on participation at the higher education level compared to basic education even in conflict and hardship areas (FAO et al., 2018); Drake, et al., 2016).

Most researchers espoused mixed method, case studies, surveys and phenomenology in their studies. There are few longitudinal used in the studies interrogating the influence of cost on students' participation. Longitudinal survey could be ideal to establish the influence of cost on retention and completion rates. On a whole while cost-sharing has been applaud for raising the total HLI's revenue, there is a growing social, economic and strategic concern that cost-sharing may create a barrier to students' access-success in HEI. This explains why there is need to study the influence of cost on students' participation on a periodical-basis.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter discusses the research setting, research design, target population and sampling procedures. It also presents the instruments of data collection with their validity/reliability, trustworthiness, data collection and analysis procedures inclusive of ethical considerations. The purpose of the study was to interrogate the influence of cost-sharing on students' access and participation in South Sudan public universities.

3.2 Locale of the Study

The locale of study is South Sudan public universities (SSPU). There are five public universities in South Sudan. They include: the University of Juba, the University of Bahr el Ghazal, the University of Upper Nile, Rumbek University and Dr. John Garang Memorial University. SSPU were chosen in the study because higher education institutions play a central role in the social, economic, political, and technological transformation of the country.

The site was also chosen for the study because public universities currently enroll 98% of higher education case-load in the country. But little is known on whether the introduced tuitions fees have any significant effects on students' participation. Table 8 illustrates the location and date of inauguration of respective universities.

Table 8

South Sudan public universities by location and date of inauguration

Public University	Location/State	Inauguration
University of Juba	Juba, Central Equatoria State	1977
University of Bahr el Ghazal	Wau, Bahr el Ghazal State	1990
Upper Nile University	Malakal, Upper Nile State	1992
University of Rumbek	Rumbek, Lakes State	2009
Dr. John Garang Memorial University of Science and Technology	Bor, Jongolei State	2010

Source: The 2013 Ministry of Higher Education Status Report to National Assembly

As demonstrated on Table 8, all public universities are located in capital states and evenly spread across the country. However, the post-independent conflict has made access to some universities difficult. The University of Upper Nile, for example, was relocated to Juba due to the on-going political conflict. Although having two universities in one city may have created ease-of-access to the population of interest, it underscored the overall challenges faced by students seeking access-completion of their studies in SSPU.

3.2.1 The University of Juba.

The University of Juba was established in 1975 but inaugurated in 1977. This university was a token of the 1972 Addis Ababa Agreement that ended the first liberation movement headed by Gen. Joseph Lagu. The mandate of the university was to address the human resource needs of the Southern Sudan regional government (now the independent country). President Numeri reneged on the Addis Ababa Peace Agreement in 1983. This led to the birth of a new movement led by Col. Dr. John Garang De Mabior (Tingwa, 2006), which led to a new wave of challenges for the university.

In 1989, the University of Juba was relocated from its original location in Juba to Khartoum during the height of the Sudan People Liberation Army/Movement (SPLA/M) struggle of for independence. The university after the signing of the Comprehensive Peace Agreement in 2005 was relocated in phases to Juba from 2008 to 2011. Infrastructure became the leading challenge as both the numbers of programme and students increased exponentially in Khartoum. Relocated and returnees students were expected to fit into dilapidated crammed premises (Ministry of Higher Education Status Report to the Assembly, 2013).

Statistics taken by the university indicate that there was a total of 1,297 (360 academic staff while 937 non-academic) staff and 13 major programme. The School Management Science enrolled 22% per cent, Community Studies, and Rural Development 13 per cent, Social and Economic Studies 12 per cent, Natural Resource and Environmental Science 10 per cent and education 9 per cent. Programme that have enrolled 4 per cent were the college of Law and Medicine while Computer Science and Information Technology enrolled three per cent and Music, arts and Drama one per cent.

On a whole, art-based course enrolled 80% of the university caseload compared to 20% Science-based course (University of Juba Statistic Yearbook, 2015). Students' enrollment in the University of Juba has also risen from 1,520 in 2011/12 to 8,975 in 2016/2017 according to the same Statistical Yearbook (2017). There is a wide gender gap between male (81%) and female (19%). This appears to replicate the literacy level within the wider society. There are still unanswered questions on matters of retention and completion rates, however, despite the overwhelming evidence that enrollment has significantly increased since

2011/2012. The lack of records on discontinued, transferred, suspended, repeating, dropout or are diseased students has made it extremely difficult to make any conclusive assumptions. There is need for a longitudinal study to unlock this package.

Factors contributing to the lack of data on students' progress and attainments are: the frequent relocations of the university due to political instability; mode of data storage in hard copy; high staff turnover either because of poor remuneration, poor working conditions, and the search for greener pastures or death. These factors put together have affected institutional memory. The overall FCVC and storage of handwritten documents in hard copy files have compounded the tracing of students' retention and completion rates. It is expected that moving on to the digital format or e-government and retraining could improve record keeping, file updates and enhance the ease of information retrieval.

3.2.2 The University of Upper Nile.

The University of Upper Nile was established in November 1991. Prof. Awad Abu Zed Mukhtar was its first Vice-Chancellor. This university was inaugurated after the University of Bahr el Ghazal. The university motto is Excellence, Knowledge, Peace, and Development. According to the 2017/18 University of Upper Nile Statistical Outlook, the institution has 3,232 students of which 82% were male while 18% female. The university has currently ten colleges/faculties/institutes.

Students' enrolment, retention, and completion have been generally erratic in the University of Upper Nile just as indicated in the case of the University of Juba. Although South Sudanese universities share similar features, the University of Upper Nile was the most affected compared to the others due to instability. At the time of this research, it was relocation from Malakal to Juba after being relocated back to its original location from Khartoum in 2011.

The contrast between the University of Juba and the University of Upper Nile has situated this study in the context of fragile, conflict and violent states in relation to accessible population. South Sudan has transitioned from one conflict to another (Mamdani, 2016). The same is true for its IHL which ironically carries over 98% of higher education caseload in the country. It is, therefore, critical to understand the link between cost and students' participation. Public universities in South Sudan provide the best context because they have an established baseline on which the researchers can draw the samples for their study and conclusions.

3.3. Research Design

The study used convergent parallel mixed method research design. The approach combines both quantitative and qualitative research approach in a single study in order to provide a broader and more comprehensive view of the phenomenon of interest. It allows the researcher collects both qualitative and quantitative data concurrently, analyze the two datasets separately, then merge the results to contrast and compare before the interpretation of the combined results. The researcher looks for convergence, divergence, contradictions, or relationships between the two sources of data as a way to have the overall view of the phenomenon (Creswell & Plano Clark, 2011).

Convergent parallel mixed method design was deemed suitable for the study because; one data resource was not enough for complex research where the researcher uses both strands and the results obtained from each strand needs to be further explained, compared and contrasted. The approach saved time for data collection and analysis. It provided a comprehensive understanding of the research problem by obtaining different but complementary data for purposes of triangulation or validation as illustrated in figure 5.

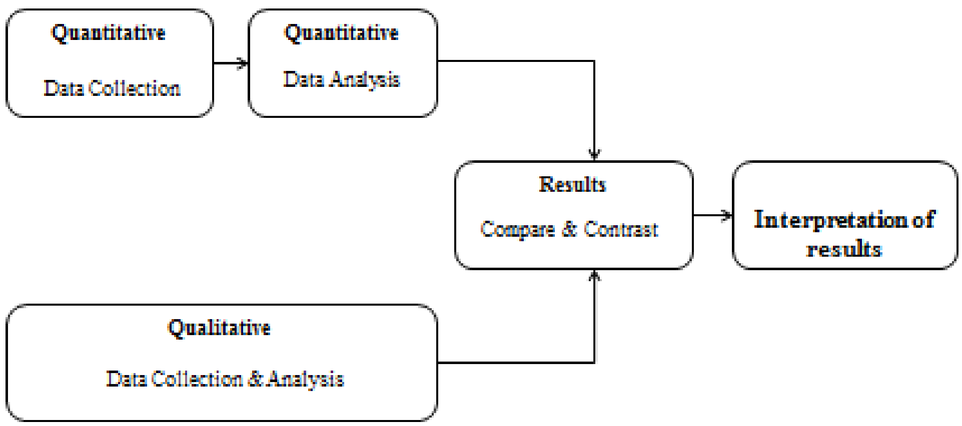

Figure 5: Convergence parallel mixed methods research design

Source: Adopted from Creswell & Plano Clark (2011).

In the qualitative strand, the researcher used phenomenological tradition. The approach was preferred because it was appropriate to collect qualitative data on the live experience of a small but highly representative sample of different groups. The members of the National Council for Higher Education (NCHE), university administrators, parents, students and food contractors were very source of data. Research has shown that subject experience of key informants provides data on the phenomenon of interest (Patton, 1990; Greene, Caracelli and Graham, 1989).

In the quantitative strand, the researcher used cross-sectional survey. This approach takes a snapshot of a population at a given time allowing the researcher to make conclusions about phenomena. Borrowing from Lebo and Weber (2015), a cross-sectional approach was chosen to collect data from the study subjects from public universities of South Sudan at a single point in time compared to longitudinal approach that collects it over a protracted period of time. In this context, it was used to understand the link between cost-sharing and students' participation.

3.4 Target Population

Target population is a group of individuals or entities with some common characteristic on whom the researcher plans to generalize his/her findings (Creswell, 2015). The units of measurement in this study were; 16,618 students (Ministry of Higher Education Status Report, 2013), 42 members of the National Council for Higher Education (Higher Education Act, 2012) and five food contractors. However, it was difficult establish baseline for parents and university administrators. Ten participants with similar characteristic were sampled. This brought the total target population to 16, 685.

The researcher stacked to the statistics conducted jointly by the World Bank and the Ministry of Higher Education in 2013 despite the presence of more recent data. This was because it was the only credible comparative study on public universities conducted to-date as illustrated in Table 9.

Table 9

Sample-frame of students' population in public universities

Public University in South Sudan	**No. Students**
University of Juba	10,893
University of Bahr el Ghazal	2,665
University of Upper Nile	2,396
Dr. John Memorial University of Science and Technology	399
Rumbek University	265
Total	**16,618**

Source: The 2013 Ministry of Higher Education Status Report.

In essence, South Sudan national admission policy provides that public universities enroll 25% on the private students' scheme and 75% on the national admission scheme. But these two data-sets are not often corroborated to account for annual admission. This means the numbers given by either party after 2013 may not provide a complete picture on admission. This explains why 2013 statistics is used instead of any recent statistics.

3.5 Description of Sample and Sampling Procedures

In line with the mixed method approach, the study used probability and non-probability sampling procedures. Probability was used in the quantitative strand while non-probability in the qualitative strand. Probability sampling procedure involves random selection which offers each element in the universe an equal and independent chance to be selected in the study. This sampling procedure according to Creswell (2015) increases confidence, representativeness, precision and ideal for a large population with a homogenous category. For the purpose of this study, the researcher used probability sample to test four assumptions and make generalization of the findings to the accessible populations.

Non-probability sampling was used in the qualitative strand. The researcher used purposive sampling techniques to select six members of NCHE, four university administrators and two food contractors. Snowballing sampling technique was used to choose four parents. Following the advancement of Johnson, Onwegbuzie and Turner (2007), non-probability sampling was appropriate to select a smaller number but highly representative sample populations as illustrated in Table 10.

Table 10

Matrix for unit of measurement and sampling procedures

Target Population	**Sample-frame**	**Sample Unit**	**Sample Procedure**
NCHE	42	6	Homogenous purposive
University Administrators	10	4	Homogenous purposive
Parents	10	4	Snowballing
Food Contractors	10	4	Homogenous purposive
Students	16,618	378	Simple Random
Total	**16,690**	**396**	

3.5.1 Students.

The researcher used simple random sampling to select a sample 378 students from sample-frame of 16,618. The sampling procedure was preferred because it ideal for a large sample frame, free from selection bias and gives every unit in sample equal chance of being selected in the study. This allows the researcher to generalize finding to the entire target population (Orodho, 2012).

Since it was logistically impossible to interview 16,618 target populations within a period of three months due to time and economic constraints, a sample unit of 378 undergraduate students was selected through the use of Krejice and Morgan's 1970 Table for determining sample size. This procedure holds that for a given population of 10,000 to 24,000, a sample size of 378 is adequate to make an acceptable decision on the finding when the margin of error is 5% and the confidence level is 95% (Krejice & Morgan, 1970).

3.5.2 Members of the National Council for Higher Education.

Table 10 indicates that out of sample-frame of 42 members of the National Council for Higher Education (NCHE), six sample units were chosen in the study. NCHE is the highest policy and oversight organ charged with the responsibility to provide higher education leadership according to the laws of South Sudan (Higher Education Act, 2012). This role made them key informants in the study. Purposive sampling was preferred because it was ideal to select a smaller number of key informants to provide data for the study.

The NCHE works through its standing scientific committees and council meetings. The Grants Committees was targeted because through their office, they are fund mobilizers and oversight institutions for the council. The National Joint Admission, Evaluation and Authentication Committee provide data on access, The Grants and Budget Committee provide data on HEF. Six members from these committees were chosen in the study because they were associated with the policies and practices in the relevant area. According to Rubin and Rubin (2005), the researcher should interview people who understand and have deeper information on the phenomenon or are members of the decision-making team. These two committees provided exactly that energy.

3.5.3 University Administrators.

An administrator is any person charged with responsible for carrying out management functions in an organization, which in this case are public universities. This category broadly includes academic deans, deans of colleges, deans of administration, registrar, heads of departments and Vice Chancellors. Because of the broadness of the term administration, it was difficult to determine the sample-frame. The researcher identified 10 persons of similar characteristics in each university before selecting four out of ten key informants through purposive sampling techniques.

The vice chancellors were omitted from the list of university administrators because they are the members of NCHE. Homogenous purposive sampling (Etikan, Musa & Alkassim, 2016) was used to glean knowledge from four university administrators because this unit shares the same characteristics since they frequently interact with students either in other administrative or financial matters.

3.5.4 Parents.

As indicated on Table 10, four parents were sampled through snowballing techniques in the study. Snowballing sampling is commonly used in qualitative research in situations where members of target populations are asked to identify others members with similar characteristics. It is preferred where there researcher has no way to construct a sampling frame of the target population (Kothari and Garg, 2014).

The researcher asked each university to proposed one name of a parent they believed had information on matters of cost and students' participation. Using the same chain, the selected parent then chose the second parent with similar characteristic. In most cases, public universities do not have information on the socio-economic profiles of students or their parents. Parents also have no formal representation in NCHE. Given the lack of data, snowballing procedure was deemed the most convenient approach to obtain data from parents.

Research has shown that there is a strong association between household size, parental level of education, occupation or income and students 'participation in higher education (Niu, 2017; Power & Myers, 2017). By paying tuition and fees, parents play a central role in their children's education and development of human capital for individual and societal development (Dixon & Humble, 2017). So it was important to consider parents in such matters that concerned them.

3.5.5 Food Contractors.

As shown in Table 10, there are five institutions to provide food to the five SSPU. Two informants (policy and operation based) were sampled from each university in the study using homogenous purposive sampling procedures. Food for education is a public-private partnership where all registered students are provided a lunch voucher to receive "free" hot on-site meal. This meal schemes is aimed at reducing the cost of education for low-income families and increase food security in FCVC (Babyesiza, 2015).

Food security college programme is a global policy intervention directly targeting the most vulnerable members of the community. It has increasingly become an effective means to increase participation rates in developing countries (Cheung & Berlin, 2015). Due to the current situation in South Sudan where inflation rate have over taken family incomes, it was difficult to draw a margin between the low-income and those cajoled by the rising cost of living.

It is against this background that the researcher sought to find out the sustainability of such programme in promoting students' participation. Scaling up of the numbers of beneficiaries without any increase in budget allocation could result into the reduction in the number of beneficiaries, quantity of food and standard of care services. This raises the question whether providing a meal to all students is sustainable. As such, food security college programme is vital in studying the link between cost and students' participation. Examining food price sensitivities is important not only for students and their parents but also for admission policy.

3.5.6 Universities.

Two out of five public universities were sampled in the study. The university of Juba (referred inhered as Uni. #A) and the University of Upper Nile (referred inhere as Uni. #B). Uni. #A and Uni. #B were chosen in the study because the population was accessible. The upsurge of the conflict in 2013 and 2016 has made access to certain location of South Sudan occasionally inaccessible. But the University of Upper Nile for this matter was relocated from Malakal in Upper Nile State to Juba in Central Equatorial, which made it easier for the researcher to access them from April 3rd to June 30th, 2018.

Second, these two universities also enrolled over 80% of the students' caseload in SSPU. The researcher used quota sampling to determine the numbers of participants in each university. The quotas were based on enrollment by colleges, faculties, institutes, schools and centers, where Uni. #A has 16 slots and Uni. #B has 11 slots.

Table 11

Numbers of slot allocation to each sampled decentralized unit

Academic Programme	UoJ	UBG	UNU	RU	DJGMUST	TOTAL
Colleges/ Faculties	11	4	10	2	6	33
Institutes/ Schools	5	1	1	0	0	7

Source: Ministry of Higher Education (2013)

Key: UoJ = University of Juba UNU = University of Upper Nile
UBG=University of Bahr el Ghazal RU = Rumbek University
DJGMUST = Dr. John Memorial University of Science and Technology

As shown in Table 11, the University of Juba was allocated 230 (61%) slots while the University of Upper Nile 148 (39%). However, each student in the slot was chosen through simple random sampling. According to Patton (2001) quota sampling procedure was appropriate where proportional representation was required. Hence, it was adopted in the study to ensure each university has an equal chance to participate in the study.

3.6 Description of Research Instruments

The following instruments were used in the study. Questionnaire for students was the primary instrument in the quantitative strand. Interview schedule, focus group discussion guide, observation guide and document analysis guide were instruments used in the qualitative strand. Each strand was given the right instrument in line with the convergence parallel mixed methods research approach.

3.6.1 Questionnaire for Students.

The researcher used both open-ended and closed-ended questionnaires to collect data from students. Questionnaires were preferred because they were compatible with the cross-sectional survey research design and convenient for collecting statistical data. Given that the sampled population unit was a literate community, they could fill and return the questions unaided. It also enabled the researcher to save time in the data collection process.

The questions were structured in student friendly manner. There were five pre-coded responses in Likert's Scale format of: strongly disagree (1), disagree (2), I do not know (3), agree (4) and strongly agree (5). In some cases, the researcher used extremely dissatisfied (1), dissatisfied (4), not decided (3), satisfied (4) and extremely satisfied (5) or very low (1), low (2), I do not know (3), high (4) and very high (5).

Likert in 1932 developed the principle for measuring trends or prevalence, attitudes and perception that widely characterize the participants' assumptions or world-view (Bowling, 1997; Burns, & Grove, 1997). The researcher used the format to measure students' perception on range of options such as cost, participation, food security and tuition fees

The questionnaire was divided into seven sections; where Section "A" gathered demographic data. Section "B" examined why students choose public universities, and how their choice of institutions was influenced by economic factors. Section "C" studied the link between family economic circumstances and students' participation. Section "D" identified students' perception on the regulation of tuition fees and how it affects their participation. Section "E" gathered information on students' perception towards the public-private partnership lunch vouchers and how they affect students' participation. Section "F" identified challenges affecting students' participation in SSPU. Section "G" outlined how the identified challenges will be overcome (Appendix D).

3.6.2 Interview Guide.

Interview guide is a set of open-ended questions designed to probe the perception and feelings. The members of National Council for Higher Education (NCHE), university administrators, parents and food contractors, respectively were interviewed on the influence of cost-sharing on students' participation in South Sudan public universities.

3.6.2.1 Interview guide for members of National Council for Higher Education.

The interview guide for the members of NCHE contained 6-7 open-ended questions derived from research questions 1-6 plus demographic information. This instrument was divided into two sections; Section "A" had demographic characteristics of members of the National Council for Higher Education (NCHE) which contained age, gender, and educational qualification and years of administrative experience in higher education institutions as well as current position as members of NCHE. Section "B" dealt with questions on research questions 1, 2, 3, 4, 5 & 6. More emphasis was put on the budget and enrolment trend as illustrated in the attached Appendix E.

Members of the council were interviewed both as individuals and groups in the case of focused group discussion. Only two out of three members were interviewed by phone because they travelled and their participation was indispensable for this study. Data obtained from the interview were recorded and transcribed for analysis with their permission. Both English and Arabic language were used interchangeably during the procedure.

3.6.2.2 Interview guide for University Administrators.

A particular instrument was designed for university administrators. It contained 6-7 questions based on research 1-6 except for the demographic data. The protocol was designed taking into consideration the roles and position of the university management. This instrument was divided into two sections Section "A" examined demographic characteristics of university administrators which contained age, gender, education qualification and years of administrative experience in higher education institution. Section “B” question were generated from research questions 1-6 to probe their perception and feelings on the influence of cost on students’ participation (Ref. Appendix F).

3.6.2.3 Interview guide for Parents.

A special interview protocol was designed for parents. It contained questions related the influence of family circumstance, parental education, income and occupation affects students’ participation. Family structure was also included in the open-ended question. This instrument was divided into two sections; Section “A” scanned sought demographic characteristics of university administrators which contained age, gender, education qualification, marital status and size of the family. Section “B” questions were generated from research questions 1-6 (Ref. Appendix G).

Two out of four parents attended both individual and focus group discussion group interviews. All of the parents were available in person for interview which was administered directly by the researcher. Open-ended question created different options to response although 3 out 4 interviews were conducted after 5:00 p.m. as most parent return from their daily hurtle of making a living for their families. Interview with parents was critical to highlight how students and/or their parents perceive tuition fees, and how cost of attendance influences their children’s participations.

3.6.2.4 Interview guide for Food Contractors.

This particular instrument was designed for food contractors. It contained 6-7 questions relevant to their roles and position as food service providers. This instrument was divided into two sections: Section “A” examined demographic characteristics of university administrators which contained age, company is registered and years of experience in food for education work. Section “B” question were generated from research questions 1-6 (Ref. Appendix H).

All the sampled food contractors were physically available for both individual and focus group discussion. Most of them opted to use Arabic language rather than English, which occasioned the need to record and transcribe for analysis to ensure that information they provided was not lost in the multiple languages used. Interview with food service providers was critical to beam light on students’ perception on public-private partnership on lunch voucher offered to over 20,000 beneficiaries.

The use of interview guides as a tool in qualitative research is a long outstanding tradition. It provides a better understanding of the interviewee’s assumption and attitude on the question of interest. According to Creswell (2015), the approach enables the researcher to gain an in-depth insight into the respondents’ world-view and what they perceive or feel about the subject of interest. For the researcher, the strategy guided the conversation and interaction with the NCHE, university administrators, catering contractors and parents.

Use of the instrument also came with some challenges. These included: first, last minutes changes of the date and time for the interviews. Scheduling appointment with parents was a winding business; it started by making an impromptus visit to their homes to set appointment. Most of the meetings were held at the later hours. The challenges to this late hours meeting were that some of the members were either tired or report late despite their good will to participate in the study.

As a matter of procedure, the researcher started with individual interviews, which provided tips on how to conduct group interview. During group interview, the researcher started with a conversation before moving on a more structured conversation. While it was easy to record telephone conversation, there was restriction on recording face-to-face interviewees. The mere pre-positioning of a camera or tape recorder could send fear message to the participants or invites a warning from administrators. Even in two occasions where prior permission was granted, the gadgets were forcefully removed.

In order to conduct focus group discussion, the researcher formed two groups of 12 participants. Group interviews were conducted at the University of Juba on 15 May 2018 and 22 May 2018 at the University of Upper Nile. The participants were composed four students, two members of NCHE, two administrators, two parents and food contractors. Two research assistants gave due consideration. Issues of gender, age and hierarchy were adequately addressed in the selection of participants for the focus group discussion. The researcher moderated directly both sessions, and each session at least lasted for one hour.

According to Bogdan & Biklen (1982), focus group discussions process allows group members to express their views honestly and seek clarifications whenever it is required. Babbie and Mouton (1998) explain that using interview guide for focus group discussion also enables the researcher to interpret the body language and build a rapport, which results into the researcher's field notes and reflections. The role of the researcher during the procedure was restricted to moderation and coordination of the conversation.

3.6.3 Document Analysis Guide.

Document analysis guide is an important instrument for data collection in a qualitative research. It involves the review of empirical and conceptual literature. In this study, it drew data from three sources: (a) public records such as annual enrolment, budget, sticker price, council resolutions, policy manuals, student handbooks, and strategic plans; (b) personal documents on individual's experiences, beliefs and reflections on students' participation in

South Sudan public universities either orally transferred or written; (c) physical evidence or objects found within the study setting such as artifacts, flyers, posters and agendas on cost relation with access and participation.

According to O'Leary (2014), there are eight steps that researchers could follow to analyze a document: create a list of texts to explore or review; consider what role the document analysis will play in the study while paying attention to linguistic or cultural barriers; acknowledge and address biases; consider strategies for ensuring issues of credibility; know what is being searched for and keep track on research objectives; consider ethical issues in research, and; develop a backup plan in case the initial experience some challenges.

Similarly, Bowen (2009) also acknowledged that document analysis schedule is one of the efficient and effective ways of gathering data. This is because documents are measurable resources of information. Over the years document review has increasingly become a valuable tool for contemporary social scientists, particularly education. Documents are stable source of non-reactive data.

In this study, the researcher spent a great deal of time in the analysis of financial and students' admission, progress and attainment documents. The Secretariat for the National Council, University library and Ministry of Higher Education relevant departments offered a stable source of data. Most of the documents on South Sudan reviewed were in hardcopies. This is due to the fact that neither SSPU nor the Ministry of Higher Education has any website.

Appendix J describes how data obtained from the review of documents provided answers to research questions. Each document or oral traditions reviewed were subjected to rigorous evaluation before meaning was drawn out of them. Documents analysis or unwritten facts were used not only as precursor for a face-to-face interview but also as a way to corroborate facts shared during the interviews. As such, interviews and document reviews were mutually reinforcing data source.

3.6.4 Observation Guide.

Observation guide is a qualitative research instrument frequently used by researchers to solicit data. The process involves creating an observation protocol, which has to cover what is to be observed, where, how, when and why. Such protocol must have space for descriptive notes and personal reflection notes.

The instrument was preferred because it involves the use of unstructured investigation. This means the investigator does not have to follow checklist but rather the event as they unfold or occur in their natural setting to draw relevant data and gain what phenomenological researchers call “emic” perspective.

The researcher observation stance was a participant observer. This observation technique applies both overt techniques (where the researcher presence is known only to the gatekeepers) as well as covert (where the researcher’s observation stance is unknown to students) for fear that students could change their behavior if they were aware they were being observed. Given that the study was conducted in two different universities, the researcher created an alternating time-frame for observing behaviors in each university (Ref. Appendix K).

The researcher conducted multiple observations, and summarized data collected at the end of the day. The researcher strategically targeted students daily life; start with means of transport, class time, lunch break (what, where and how they eat), types of extra-curriculum activities they were involved in, residential hall within campus or rentals as individual or groups, interaction with accounts departments to establish which cohort pay tuition fees upfront or by installment or through any deferred arrangement. The aim was to establish students' purchasing power and the difference between affluence and non-affluence campus culture.

Research has shown that observation is one of the qualitative instruments for data collection. It is important because it captures phenomenon in its natural setting, which makes it critical for triangulating what the researcher sees and what is done (Savage (2000). It reduces biases as researcher can confirm first-hand the relation between what is said and what is done or written (Baker, 2006). However, the instrument has its own limitation, too. It is limited to what the researcher can afford to see or hear (Creswell & Clark, 2011).

The researcher found observation, particularly, useful during the following events; orientation of new students, lunch breaks, means of transport, photocopying notes and sports or during open-air debates at the student parliament. Direct observations were also useful when gathering data about infrastructural issues, environmental cleanliness and hygiene, convenient places for eating and staff morale. However, it was particularly difficult to establish students purchase power, affluence verses non affluence life style, has and how the political and economic situation seemed to bite across different classes and income groups.

3.7 Validity, Pilot Testing and Reliability of Quantitative Instruments

There are different approaches to ensure quality in a mixed method study. The key quality indicators in a quantitative inquiry are; validity (3.7.1), pilot testing (3.7.2), and reliability (3.7.3). Trustworthiness of quality instruments is discussed in 3.7.4.

3.7.1 Validity of Quantitative Instruments.

Mugenda and Mugenda (2015) referred to validity as the extent to which the instrument measures what it is supposed to measure or designed to measure. In other words, validity is the accuracy and meaningfulness of inferences, which are based on the research results. Creswell (2015) also defined validity as the degree to which a test measures what it purports to measure.

Carter and Porter (2000) observed that there are two ways to measure validity in education research can be measured. Internal validity relates to the extent to which the research instrument measures what it is intended to measure. External validity, relates to generalizability of the research findings beyond the immediate study sample and setting. In order to check whether the questionnaire and the interview guides helped to measure the objectives of the study, face validity the instruments were checked to establish the language construct used to remove ambiguities by three independent expert's assessment. Their recommendations were incorporated in modified version of instrument.

In this work, however, most of the questions focused on participant's' attitudes on cost of education, (more specifically tuitions fees and other maintenance cost), lunch vouchers, access, retention and attainment. Content validity of an instrument was achieved by asking three experts to rate the questionnaire items for readability, clarity and comprehensiveness. Where the three experts agreed, the item was deemed good. However, where the raters disagreed, the questionnaires were modified according to predominant view.

3.7.2 Pilot Testing of Questionnaires.

The researcher identified and conducted the pilot study in the third public university known as University of Bahr el Ghazal since the Universities of Juba and the University of Upper Nile were sampled for actual study. A list of 50 emails was provided by the University of Bahr el Ghazal student's leader. All were contacted but 44 filled and returned the questionnaire. But only 30 questionnaires were used in the pilot testing.

The university itself and all the students who participated in the simulation exercise were not included in the main study. The researcher opted to piloting test the questionnaire in order to detect vagueness or relevance of some questions. Anomalies were immediately corrected to bolster the final questionnaire. The corrections did not only enhance the effectiveness of the instrument but also the ease of filling it. According to Orodho (2009), piloting testing of questionnaire is to be carried out before the real study is conducted in order to boost the effectiveness of the questionnaire.

3.7.3 Reliability of Questionnaire

According to Kothari et al (2015), reliability is an extent to which a questionnaire, test, observation or any measurement procedure produces the same results on repeated trials. In short, it is the stability or consistency of scores over time or across raters. Reliability of the questionnaire was conducted using a pilot test drawn from the response of 30 students and university administrator from Bahr El Ghazal University.

After the data was collected it was fed to SPSS version 23 to test the reliability of the instrument. Cronbach’s alpha coefficient was used to measure internal consistency of the 30 filled and return questionnaires drawn from the simulation exercise. The reliability Cronbach alpha coefficient ranges from 0 to 1, where 0 represents not reliable and 1 signifies absolutely reliable questionnaire (Oladimeji, 2015). The internal consistency of tools was calculated and a Cronbach’s coefficient alpha was found to be 0.83. Orodho (2009) opined that if Cronbach coefficient alpha is above 0.7, it should be considered high enough to judge the reliability of the instrument. As such the instrument was reliable.

3.7.4 Trustworthiness in Research Findings.

Trustworthiness in qualitative research is all about establishing these four things: credibility, dependability, transferability and conformability according to Lincoln and Guba (1985). They are described in more detail thus.

3.7.4.1 Credibility of a qualitative finding.

Credibility is the first standard for judging trustworthiness or quality of the instrument in a qualitative research. It is about confidence in the truth of the findings. According to Boeiji (2013), the strategies to increase credibility of a study are: period taken in the field; persistence observation. These enable the researcher unearth how the participants' lived experiences unfold in their natural setting could help changing some preconceived ideas; pulling together multiple documents to draw synergies. In addition, using member checking whereby all data recorded, reported or interpreted are reviewed by those participants who provided it in first place to check whether they agree or disagree with the opinions taken as theirs.

The researcher spent three months; April 3rd to June 30th, 2018 in the field collecting data. This prolonged engagement, persistent observation, triangulation, peer debriefing, negative case analysis, and member checking were done to increase the credibility of the finding. The researcher had two unique opportunities to sustain engagement; at the peer debriefing and the peer retreat at Naivasha in July, 2018.

3.7.4.2 Transferability or applicability of a qualitative finding.

Transferability is the second standard for judging trustworthiness of instrument in qualitative inquiry according to Lincoln and Guba (1985). It deals with whether the findings from a qualitative study can be applicable in another context. Qualitative inquiry unlike quantitative inquiry makes no claims to generalize its finding to the entire population because they have a smaller sample size which are often subjectively drawn from the universe.

Transferability is a problematic concept because it tends to get equated with generalization. Boeije (2013) explains the notion of applicability in a different circumstances and time still requires significant research. However, to increase transferability of a finding, the researcher needs to provide a "thick description" of the finding, which implies a clear description of the time and context in which a study is developed. The difficulty with this proposition is that transferability claims should be made by audiences and not by the author unlike in quantitative finding where researcher can generalizes conclusions from particular to the whole.

This study exonerates itself from any claim of applicability of the research finding to another context. However, the study conclusions can be generalized to the accessible population in the study universe. This is because the accessible population is the actual sampling frame, from which the study randomly drew its' sample. In other words, it is the group to whom the finding can actually be generalized because they provide the sample.

3.7.4.3 Dependability of a qualitative finding.

Dependability is the third standard for judging trustworthiness of the instruments in a qualitative inquiry according to Lincoln et al (1985). It refers to the stability or consistency of the inquiry processes used over time. To increase dependability, the researcher engaged key informants to ensure that the right information was collected from the authoritative source, which at times was corroborated by document analysis, records, archives and reports.

According Boeije (2013), the dependability of a study can be obtained through the selection of key informants, which includes people who know or make decision on the phenomenon interest. This is important because the quality of the process depends up on the reliability of its key sources and its consistency of the field narrative.

3.7.4.4 Conformability of a qualitative finding.

Conformability is the fourth standard for judging trustworthiness of the instruments in a qualitative inquiry according to Lincoln et al (1985). Conformability of a qualitative finding is how well the finding supports the views of key informants. This can be done in three ways; audit trail, triangulation and reflexivity.

In order to increase the confirmability of the qualitative finding, the researcher cited all reference of the literature reviewed, and in some cases used direct quotes of participants' views. Even where transcriptions were involved, the researcher made all effort to ensure that the back translation from Arabic to English did not interfere with the original meaning.

3.8 Description of Data Collection Procedures

The procedure for data collection includes; formally obtained the approval of the Institutional Review Board to go to the field, and gate-keepers to access the sampled population. The gate-keepers included the Ministry of Higher Education, and Vice Chancellors of the sampled SSPU. In all cases, the researcher was accorded with a letter of introduction, which also clearly outlined the purpose of the study. These letters, no doubt, facilitated access to research site and permission to interview all the relevant informants. It also enabled the researcher to recruit five student leaders as research assistants (three for the University of Juba and two for the University of Upper Nile).

Quantitative data was collected through the use of questionnaires. Since there were 27 decentralized units in both universities, each college/faculty/school/institutes were allocated 16 questionnaires. Two extra questionnaires were provided by the researcher for each decentralized unit to cover deficit caused by loss or damaged. This technique helped the researcher achieved 100 per cent questionnaire return rate.

Qualitative data were collected through face-to-face interview guide, focus group discussion guide, observation protocol and document analysis guide. The formal consent of each participant was obtained before conducting any interview. Prior appointments were made to preludes to any interview. Permission to use records from the archives from libraries was formally obtained.

In line with the convergent parallel mixed method design tenets, each strand was allocated equal status and time in the data collection. However, data collection in a qualitative strand occurs simultaneously, field memos and reflection followed each interview and observation (Hesse-Biber & Leavy, 2011). The researcher, however, could not document photos or sound bites because of the restriction imposed by gate-keepers. This created surmountable challenges in transcribing verbatim from Arabic to English. Such problem could be insurmountable where the researcher has no command of both languages.

3.9 Description of Data Analysis Procedures

Data analysis was conducted in line with the convergent parallel mixed research design tradition. In this tradition qualitative data collection and analysis are conducted concurrently while quantitative data collection and analysis are done separately.

3.9.1 Procedures for Analyzing Qualitative Data.

It is important to re-emphasis here that both strands were accorded equal status and time. However, the procedures for data analysis in qualitative strand differ significantly from quantitative strand. The collection data and analysis takes place simultaneously. According to Boeije (2013), this process involves the collection of data, cleaning-up data by breaking it down data into segments to identify incomplete or inaccurate responses and returning to the field to seek further clarity. The to and fro movement continues until the researcher achieves saturation.

The researcher read the field memos and developed a codebook. Coding involved assigning labels to the responses, which enabled the researcher to group the responses into themes and categorize codes. Themes and categories were interpreted through abstract categories and presented as findings in a descriptive format in frequencies and percentages tables or graphs. The researcher then validated the findings for accuracy through member checking, triangulation and peer review and debriefing as advanced by Patton (2001). This increased trustworthiness of the qualitative inquiry.

3.9.2 Procedures for Analyzing Quantitative Data

A one sample t-test was used to test the null hypotheses. The researcher used t-test procedure because the data was continuous data, had normal probability distribution and sample selected through simple random sample techniques. The researcher opted for a one sample t-test because it was the most appropriate to measure the difference between two population proportions.

The procedure to apply a one sample t-test involves four steps: (a) state both null and alternative hypotheses; (b) formulate the decision rule; (c) analyze sample data, and; (d) interpret results. In line with this formula, the researcher stated both the null and alternative hypotheses using statistical notation to test;

$$H_0: p_1 = p_2$$

$$H_a: p_1 \neq p_2$$

Where the null hypothesis states that there is no difference between the two population proportions (i.e., $d = p_1 - p_2 = 0$), and alternative hypothesis supports that there was difference between the population proportion. Theorem of Central Limits states that the difference between the sample means and null hypothesis means is equal to zero.

The second step was to formulate the decision rule. The researcher set significant level or *p-value* at 0.05 ($\alpha = 0.05$). Third, the researcher used SPSS to analyze data to establish the difference the sample means and *p-value.* The decision rule was that: we reject H_0 *at* $\alpha=0.05$ if *(t)* > *p-value* and conclude that there is a significant difference between the sample means of the two population proportions. Four, based on the finding, the researcher interpreted the results by describing the *p-value*. When the *p-value* was less than the level of the significance level (0.05), we rejected the null hypothesis but failed to reject the null hypothesis if *p=value* was greater the significant level (0.05) (Oladimeji, 2015; Kothari et al, 2014).

3.10 Ethical Considerations

Ethical considerations in research are very critical. It is about the difference between what behavior is acceptable and what conduct is not acceptable before, during and after access to a research site. This involves; seeking formal approval, protection and respect of participants and research site.

The Catholic University of Eastern Africa granted permission for the researcher to proceed to the field. The permission to access public universities was provided by the Ministry of Higher Education, Science and Technology. While on site, the gate-keepers (vice chancellors of the sampled universities) granted permission to access the university premises, students and relevant departments. At all levels, the objective of the research was clearly stated. This was important to build trust.

The researcher was also aware of the rights and duties to protect the right of the participants at all levels. This role does not start at the field but right from the moment of planning the study. A study conducted by Creswell (2015) stipulates that the duty to protect participants, develop trust, promote integrity and guard against impropriety begins right from the moment of planning, data collection, analysis and reporting.

The researcher understood the gravity of neglecting the rights, interests, and sensitivities of the participants. To ensure the respect and safeguard the privacy of the participants, the researchers used codes and numbers to distinguish between codes such as NCHE #1,2,3 (National Council of Higher Education), Stud # (students), Par #1,2,3 (parents), Adm.#1,2,3 (university administrators), CTR #1,2,3 (food contractor) and Uni. #A & Uni. #B (university) to hide their identities of the participants.

According Babbie and Mouton (2001), researcher should respect participants' right to privacy, adhered to the entry and exit norms, and the duty of no falsification of evidence and conclusions. According to Spradley (1980), safeguarding the privacy of the participants involve freedom from exploitation, voluntary participation with an informed consent, the storage of raw data or other materials, and not disclosing the participants.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF STUDY FINDINGS

4. 0 Introduction

This chapter presents the findings of the study on the influence of cost-sharing on students' participation in South Sudan public universities. It entails background information of the respondents and presents, discusses the findings based on the research questions and null hypotheses.

4. 1 Instruments Return Rate

The questionnaires were distributed to the students, while Interview guides were administered to members of the National Council for Higher Education, university administrators, parents and food contractors. The researcher embarked on the study from April 3rd to June 30th, 2018. The summary of the instruments return rate is provided in Table 12.

Table 12

Summary on the instrument rate of return

Types of Instruments	Numbers Administered	Numbers Returned	% Rate of Return
Questionnaires for students			
The University of Juba	238	238	100
The University of Upper Nile	140	92	66
Interview guides			
National Council/Higher Education	10	8	80
University Administrators	6	5	83
Parents	4	4	100
Food contractors	2	2	100
Total	**400**	**349**	**93.8%**

Source: Field Research, 2018

Data in Table 12 show that out of the 238 questionnaire proportionally allocated to the University of Juba, there was 100% instrument return rate. However, out of 140 proportional distributions for University of Upper Nile, there was 66% return instrument return rate. The overall students' instrument return rate was 83%. There was 100% return rates of the questionnaires, 80% instrument return rate for members of NCHE, 83% for university administrators, 100% for parents and 100% food contractors. The overall instrument return rate was 93.8%.

Considering both the questionnaires and interview administered, it can be concluded that there was a very high instrument return rate. According to Mugenda and Mugenda (2015), instrument return rate 80% and above is considered a reliably representation of the target population.

4. 2 Demographic Characteristics of the Participants

This section presents the demographic characteristics of students, National Council for Higher Education (NCHE), university administrators, parents and food contractors as summarized In Table 13- 18.

4.2.1 Demographic Information of Students.

Table 13 presents the age bracket, gender, admission categories, year of study and home of origin of the students sample in the study.

Table 13

Demographic information of students

Variables	Frequency	Percentage
Age bracket		
Below 20 years	85	22
21 – 30 years	140	37
31 – 40 years	110	29
41 and above	33	9
Total	**368**	**97**
Gender		
Male	271	73
Female	104	27
Total	**378**	**100**
Year of study		
First year	88	23
Second year	123	28
Third year	105	28
Fourth	55	14
Fifth year	7	2
Total	**378**	**100**
Admission pathways	297	79
General admission	297	79
Private admission	59	16
Mature admission	16	4
Distance learning	6	2
Total	**378**	**100**
Home of origin		
In-state	85	23
Out-of-state	293	77
Total	**378**	**100**

Source; Field Research, 2018

Key: *To hide their identity of the students, the researcher used code and numbers to distinguish between them (e.g. Stud # 1, 2, 3…)*

Table 13 shows that 37% of the students' age ranged between 21-30 years, 29% 31-40, 22% below 20 years and 9% were above 41 years. Data also display that 73% of the students were male while 27% female. Admission data indicate that 79% of the students were admitted through the joint admission board while 21% through other approaches. Admission by region reveals that 78% of the students were out-of-states recruits compare 22% in-state recruited. An evaluation of students by years of study revealed that 33% were second years, 28% third year, 23% first years, 14% fourth year and 2% fifth year.

The exposition on age shows that the majority of the respondents were mature enough to understand the content and to have responded accordingly. The description on gender reveals that there was a high gender disparity between male and female students with regard to students' participation in SSPU. This exposure does not come as a surprise because there were only 18% female students in the University of Juba and 16% in the University of Upper Nile. South Sudan is a largely rural country; where women's roles are still defined through patriarchal norms and where cost is concerned investment in the boy child still takes precedence over female.

The account on types of admission shows that the majority of students were enrolled through the general admission procedure. Students enrolled through this procedure paid tuition fees in accordance with the government published sticker prices, which is cheaper in contrast with other modes of admission. The explanation on year of study indicates that the majority of respondents were second year students. This cohort could eloquently articulate access and completion.

The exposition on students' origin reveals that the majority of respondents were out-of-state students. The proximity of a students' home from college has implication on cost, distance, time and transport. There is a link between cost of higher education, university location and students' decision to study. The analysis of demographics information reveals the different characteristics of students. The findings provide a better understanding of the link between the cost of attendance and students' access and attainment behavior.

4.2.2 Demographic Information of Members of the National Council.

The researcher deemed it important to find out the demographic background of the members of the National Council for Higher Education (NCHE). The results are as in Table 14.

Table 14

Demographic information on members of the National Council for Higher Education

Variable	Frequency	Percentage
Age bracket		
Below 35 years	-	-
36-44 years	1	10
45-54 years	5	50
55 and above	2	20
Total	**8**	**80**
Gender		
Male	6	60
Female	2	20
Total	**8**	**80**
Professional qualification		
Professor	4	40
Ph.D.	3	30
Masters	1	10
Total	**8**	**80**
Duration of service in higher education		
1-5 years	1	10
6-10 years	5	50
11-15 years	2	20
Total	**8**	80

Source: Field Research, 2018

Key: *Researcher used code to hide the identity of the members of NCHE, and numbers to distinguish between the sampled population e.g. NCHE # 1,2,3….*

Data from Table 14 illustrate that 50% of the members of NCHE were between 45-54 years, 20% above 50 years, while 10% between 35-44 years. Data also revealed that 80% of the council members were male and 20% female. Given that higher education is a highly professional field, 40% of the members had Ph.D. degree, 30% were professors, and 10% were master's degree holders. However, 20% did not specify their qualification. This statistics also show that 50% of members of NCHE had served in higher education sector for over 10 years, 20% less than fifteen, and 10% less than five years and 20% did not indicate their years of service.

A snapshot of this presentation shows that the majority of respondents were male. Female access continue to dwindle as students' progress from upper primary to tertiary education despite aggressive enrollment campaigns to bring and retain girls in school spearheaded by non-governmental organization (Ministry of General Education, 2018).

Data from Table 14 indicate that the majority of participants were leading academics with various qualifications. The wealth of theoretical knowledge and practical skills are necessary precondition to fulfill their oversight roles. The exposition shows that majority of NCHE members had served the higher education sector for a period not less than ten. This means they were knowledgeable and capable of providing information.

4.2.3 Demographic Information of University Administrators.

It was also important to determine the background information on university administrators and the findings are summarized in Table 15.

Table 15

Demographic information on university administrators

Variable	Frequency	Percentage
Age bracket		
Below 35 years	-	-
36-44 years	1	17
45-54 years	3	50
55 and above	1	17
Total	**5**	**83**
Gender		
Male	4	67
Female	1	16
Total	**5**	**83**
Professional qualification		
Professor	-	-
Masters' degree	3	50
Ph.D. degree	2	33
Total	**5**	**83**
Duration of services		
1-5 years	-	-
5-9 years	3	50
10 and above years	2	33
Total	**5**	**83**
University		
The University of Juba	3	50
The University of Upper Nile	2	33
Total	**5**	**83**

Source: Field Research, 2018

Key: *To hide their identity of the university administrators, the researcher used codes, and numbers to distinguish between them e.g. Adm # 1,2,3…*

The data presented in Table 15 indicate that 50% of university administrators were between 45-54 years, 20% were above 50, and 17% were between 35-44 and 33% reluctant to indicate their year of birth. Field data also revealed that 83 per cent of the respondents were male while 16% female. Analysis of university administrators of educational qualification indicated that 50% held master degree, 33% PhD or professors and 17% other qualifications. Statistics also indicated that 50% of university administrators served higher education sector for a period ranging from 5-10 years, 33% above 10 years.

From Table 15, it can be summarized that the majority of the university administrators were in their 50s, which indicates that they had accumulated bureaucratic experience and knowledge on the subject matter. There was high representation of males compared to female. The low participation of female signifies the need to promote equal opportunities and outcomes policies in education. The fact that 50 per cent of the university managers' were master's degree holders and 33 per cent holders of terminal degree holders shows that the universities recruited competent staff and had wide experience of dealing with students.

The exposition also shows that the majority of university administrators served for at least over 10 years. This means they had been in the service long enough to understand the social, economic, historical and political implication of cost-sharing on participation. On the whole, the roles of university administrators were indispensible in promoting students' participation. The more qualified of the professional personnel doubled up academic role and administration, which leave thin impact across board.

4.2.4 Demographic Information of Parents.

Table 16 captures background information on parents. It covers on the age bracket, gender, academic qualification and family size.

Table 16

Demographic information of parents

Variable	Frequency	Percentage
Age bracket		
Below 35 years	-	-
36-44 year	-	-
45-54 years	2	50
55 and above	2	50
Total	**4**	**100**
Genders		
Male	3	75
Female	1	25
Total	**4**	**100**
Professional qualification		
Ph.D.	-	-
Master’s degree	1	25
Bachelor’s degree	2	50
No formal education	1	25
Total	**4**	**100**
Family size		
5-9 children	1	25
10-14 children	2	50
15 and above children	1	25
Total	**4**	**100**

Source: Field Research, 2018

Key: Researcher used code to hide the identity of parents, and numbers to distinguish between the sampled participants e.g. Par # 1,2,3….

Data from Table 16 indicate that 50% of parents were between 45-54 years of age and 50% were above 55 years. Data revealed that 75% of the parents were male while 25% female. An assessment of educational qualification varies significantly; 50% had master degree, 25% basic degree while 25% had no formal education. Statistics revealed that 50% of parents have over 10 children and dependence, 25% have 10 while 25% had 5-10. Given the current FCVC, they were challenges to educate and provide food without external financial support.

This description indicates that more male-parents were interviewed. The parents were employed, unemployed or self-employed. Almost all reported having a large family size and associated their children's' participation with their SES. This means there was a strong link between parental education level, occupation and income and students' participation.

4.2.5 Demographic Information of Food Contractors.

Responses were sought from food contractors. Table 17 captures background information on their age bracket, gender, registered company and year of service in food for education works.

Table 17

Demographic information of food contractors

Variable	Frequency	Percentage
Age bracket		
45-54 years	1	50
55 and above	1	50
Total	**2**	**100**
Genders		
Male	2	100
Female	-	-
Total	**2**	**100**
Company Registered		
Not registered	-	-
Registered	2	100
Total	**2**	**100**
Years of Experience		
More than 5 years	-	-
Over 10 years	2	100
Total	**2**	**100**

Source: Field Research, 2018

Key: *To hide their identity of the food contractors, the researcher used code and numbers to distinguish between them e.g. CTR # 1,2,3…*

As stated in Table 17, all the food contactors were male aged between 44 to 55 years and 50% while 50% were above 50 years. The food proprietors were local businessmen registered with the Ministry of Legal Affairs and has served in the food for education business at least for over ten years. This means they had long experience in the provision of food for educational institutions and were appropriate informants on the matters related to food security college programme.

4.3 The Rising Cost of Education

The first research question examined to what extent the rise net cost affect students' demand to access does and attend South Sudan public universities. Public HLI are heavily subsidized by the government compared to private own HLI. In the light of the fragile economic and political situation of the country, it is not known to what extent net cost affects students' decision to access and attend SSPU.

The researcher identified seven indicators to measure the influence of the rising net cost on students' decision to access and attend SSPU. These included; tuition, housing, food, transport, health-care, teaching/learning materials and proximity between home and college. These items were measured against modified Likert's scales with five options; very low (1) low (2) I don't know (3) high (4) very high (5) as demonstrated in table 18.

Table 18

Student perception on the influence of the rising net cost on demand

INDICATORS	**Very Low** ***F* (%**)***	**Low** ***F (%)***	**Undecided** ***F (%)***	**High** ***F (%)***	**Very High** ***F (%)***
Cost of tuition fees	170 (44%)	25 (7%)	5(1%)	105 (28%)	73 (19%)
Cost of housing	68 (18%)	30 (8%)	8 (2%)	140 (37%)	130 (34%)
Cost of food	3 (8%)	5 (1%)	4 (1%)	124 (33%)	215 (57%)
Cost of transport	60 (19%)	21 (6%)	14 (4%)	170 (44.9%)	113 (30%)
Cost of health-care	80 (21%)	11 (3%)	2 (0.5%)	125 (33%)	160 (42%)
Cost of scholastic material	100 (26%)	9 (2%)	9 (2%)	137 (36%)	123 (33%)
Out-of-state student adversely affected	85 (22%)	50 (13%)	8 (2%)	111 (29%)	124 (32%)

Source: Field Research, 2018

Key: F = Frequencies; % ** = Percentages*

Table 18 indicates that 44% of the respondents perceived that tuition fees were very low and 25% thought it was low. However, 28% believed that the published sticker price was high while 19% perceived it as very high. The exposition shows the majority of the respondents maintained that the published tuition fees were low despite the rise in inflation.

From the data in Table 18, there was a slim borderline between those who agreed that the published sticker price was low and those who still thought they were high. A student from Uni. # A opined that:

> For students from low-income families, the published sticker price is very high. But for upper-income families the current sticker price is very low since they are less sensitive cost compared to low-income groups. It would have been better to charge students according to their family incomes. (Stud # 1 interviewed April 11th, 2018).

It is the researcher's view that charging students based on their family income is very unlikely in South Sudan context because students' records did not capture their parents' income profiles. This made it difficult for educational planners to establish parental educational level, occupation and income. As such, they could not segregate tuitions by parental SES.

There was consensus that higher education was the driver of socio-economic growth in both Uni. #A and Uni. #B. But there was a sharp difference on whether the introduction of tuition fees was supportive of students' participation. A parent in Uni. #B expressed frustration on tuition fees and students' participation, "the introduction of tuitions fee policy in a country emerging from a protracted civil war is an affront to human capital development and a hindrance to bolster its economy" (Par # 1 interviewed June 6th, 2018).

From document analysis, however, there were evidence that enrollment had risen, defying the political and economic situation. According the University of Juba Statistical Yearbook (2015), enrollment had significantly risen from 1,520 in 2011/2012 to 8,975 in 2015/2016 albeit the rising cost of education. Similarly, the 2017/2018 University of Upper Nile statistical outlook also reported an increase from 2,396 in 2012 to 3,232. These two indicators showed that the rise in net cost had little negative influence on tuition.

From researcher's observation, students were in agreement that tuition was affordable. However, the rising cost, housing, food, transport, health-care and scholastic materials were the major threats in two ways; first, universities were consistently adjusting other charges to purchase in the constantly changing market.

Second, the illusive end to the political conflict had made adjustment of the market price difficult. As such the cost of tuitions fees appeared to be stable over the last six years while the maintenance cost had seen flux over the same period. The fact that the enrollment has been rising cannot be explained by the nominal tuition fees alone. The rise in cost of living had forced many families (especially the middle-income) to choose national universities or transfer their children who were already studying abroad.

As shown in Table 18, 37% of the respondents said the cost of boarding was high while 34% believed it was very high. However, 18% maintained that boarding was very low and 8% low while 2% were undecided. The majority (71%) of the respondents reported that the cost of boarding was one of the major challenges for students' who resided outside their home districts.

Three students were asked during the focus group discussion in Uni. #B to identify how net cost affect students' housing. They said;

> Students who do not have social network in central business district rent off-campus either in colonies or individually depending on their ability to pay. But such rentals are often found in the outskirt of the city, where insecurity is prone (Stud #7). The cost of off-campus accommodations has been incrementally high despite the perennial lack of basic service (Stud #8). Students who crash-in with their extended relations have considered dropping out as cost of living rise (Stud #10) (Focus Group Discussion Uni. B May 30th, 2018).

From the document analysis, the 2013 Ministry of Higher Education report to the National Assembly highlights the shortage of boarding facilities for both staff and students. It underscores that 'the available infrastructure in SSPU were neither intended nor designed for university education'.

The issue of student boarding is critical. From observation, there was clearly evident shortage of accommodation both for students and staff. The situation was more acute in Uni. #B because it was a displaced institution. The researcher noticed that some students in Uni. #A were accommodated in Uni. #B, which either points to a direct hospitality arrangements between institutions or indirect off-record prearrangement among student themselves.

From the evidence gathered, it was noticeable that housing was a problem. While Uni. #A had limited hostels, Uni. #B was temporarily hosted in private technical institution with absolutely no space for students' boarding. The limited accommodation facilities in Uni. #A were often overcrowded, poor sanitation, no piped water and electricity. It was informally managed. Those who bore the negative brand of this shortage were out-of-state students from low-income groups who had no relatives to support them.

Data in Table 18 unveils that 56% of the respondents testified that the price of food stuff was very high and 33% claim it was high. However, 9% maintained the cost of food was just normal given the FCVC. This indicates that 89% of respondents attested that cost of food was significantly high. Abraham Maslow's hierarchy of needs theory places food at the bottom of the hierarchy to indicate that it is a basic need.

Interview with a member of the NCHE revealed that the government in order to address the effect of food insecurity provided on campus meals to all registered students. "We provide meals not merely to fight hunger but also attract students from low-income families to access and attend public universities", said NCHE #2 (April 30th, 2018). A student raised this concern while one meal per day was good merely to address students' survival needs, it was not enough to provide the learner with the stamina required to learn. Students who cannot provide additional meals often reconsider their participation. "We have seen friends leaving although they could eat one meal per day here at college", (Stud #4 April 15th, 2018).

The data in Table 18 unveiled that 50% of the respondents admitted that the cost of transport was high and 30% considered it very high. A total of 14% were undecided. This means 80% of the respondents believe the cost of transport was high, which is ironical in an oil producing country.

A university administrator stated that there was relationship between the cost of transport and the cost of fuel. “When the fuel cost goes up, the cost of transport and goods follow in tandem”, said (Adm. #1 – April 20th, 2018). For students who rent outside the central business district, the cost of transport to and fro college was one of the major costs of education. A student from Uni. #A articulated;

> Transport is another challenge for off-campus students. Students who live at the far flank of the city connect two to three buses to college. When I am short of money, I walk for at least 10km per day to reduce cost. But doing this three times a week is not fun for students who may not be personally committed to their studies. (Stud #5, 19/4/2018)

Most freshmen detest tracking to and fro college experience as a student narrates this practice. “I sometimes arrive late or do not come to school at all together when I ran short of cash for transport” said Stud # 8 (May 25th, 2018). A university administrator confirms that the role of the university was to ensure that there is a lecturer to provide lessons. But both lecturers and students are to find their own means of transport to college (Adm. 3 April 28th, 2018).

The finding in Table 18 suggests that 42% opined that the cost of health-care was very high, 33% high. However, 21% acknowledged that it was very low and 3% low. This means that 75% of students were worried that student medicare was high. From observation data, both universities trained medical doctors. Yet the university clinics were barely with any first aid. This had denied medical students the opportunity to practice their profession.

Interview with students from Uni. # A revealed that each student meets the cost of their medicare. However, the government or university occasionally intervened where there was need to repatriate the body to a student’s home district. This was confirmed by a university administrator from Uni. #B. “Medical insurance is not a pre-condition for access. Students are encouraged to meet the cost of their medical cost from their out-of-pocket arrangements", said Adm. #4 (Interviewed on April 24th, 2018).

All students interviewed identified the cost of healthcare as one of their major concern but they declined to admit that worries over healthcare have any deterrent effects on their access and attainment. This demonstrates resilience. Nevertheless, the acquiescence with lack of policy on health cover and lack of drugs or first-aid in both the teaching hospital university clinic was self-defeating. There is, therefore, need to close these gaps to improve training of the medical personnel in the country.

The data in Table 18 also illustrate that 36% of the respondents reported that cost of scholastic materials was very high and 33% mentioned that it was high. Nonetheless, 26% claim it was very low while 9% agree that it was low. This means the majority of the respondents believed that the cost of scholastic material was high as a student from the Uni. #B stated;

> South Sudan's main export is oil. But there is an acute shortage of fuel in the country since the civil war resumed. A cost of a liter of fuel is between $1 and $2 USA dollars. Given that the university depends on generators, any rise in the cost of fuel reduces on the hours per day of power supply. As a result, the cost of photocopying reading material also rises (Stud. # 9, April 27th, 2018).

From observation alone, it is not hard to believe what Stud #9 was alluding to. What catches the eye of every visitor is the number of generators and photocopying machines in and around campus. While generators provide a sturdy source of power, the noise pollution is often ignored by its inhabitants although it may be deafening and irritating to guests. A university administrator said "the lack of power has constrained the proliferation of information communication technology with its internet revolution", (Adm. #4. May 2nd, 2018).

Similarly, a student from the Uni. #A also confirmed, "These generators and photocopiers are very instrumental in the providing handouts. It is important because we have no access to internet" (Interview Stud. #3, April 15th, 2018). From the researchers' observation, there was an erratic supply of power in the entire municipality. But institutions of higher learning just like the government ministries were put on the priority grid. There was, however, no evidence of alternative power such as solar.

4.3.1 Hypothesis Testing

A corresponding null hypothesis based on RQ was tested using a one sample t-test. The procedures requires that both null and alternative hypotheses drawn from research question be formulated and decision rule explicit (Rose & Wilson, 2017).

H_{o1} There is no significant difference in mean with respect to the influence the rising net cost has on students' decision to access South Sudan Public Universities when are categorized as in-state and out-of-state students

$H_{a1:}$ There is significant difference in mean with respect to the influence the rising net cost has on students' decision to access South Sudan Public Universities when are categorized as in-state and out-of-state students.

University education in a fragile conflict and violent context can be quite expensive. Students were asked to rate whether they agree or disagree with the assumption that there is no significant difference between in-state and out-of-state students in the influence of net cost on students' decision to access and attend SSPU. Where 61% agreed, 37% disagreed and 2% were undecided. Further statistical analysis was undertaken using a one sample t-test to determine whether there was any significant means variance in the proportion of students who agree and those who disagree with the null hypothesis (**H_{o1}**). The results are illustrated in Table 19.

Table 19

Is there any variation between in-state and out-of-state student' decision to access SSPU?

Decision rule: reject H_{01} if $\alpha \leq 0.05$, and fail to reject if t-value > p-value

Test Value = 0						
					95% Confidence Interval Level of Difference	
Is there any difference between in-state and out-of-state students with respect to influence of net cost on students' decision to access SSPU?	t	df	Sig (2-Tail)	Means Difference	Lower	Upper
	31.834	**373**	**.000**	**2.567**	**2.38**	**2.76**

where (t = 31.834), (df = 373), p = .000

Inference

Based on results in Table 19, where the observed *t*-value (***t*** = 31.834), the degrees of freedom **(***df* = 373), and p-value = 0.000 with margin of error of 5% and the corresponding confidence level is 95%. Decision rule: reject H_{01} if $\alpha \leq 0.05$, and fail to reject if t-value was larger than p-value. We, therefore, rejected H_{01} and concluded that there was a significant mean difference between in-state and out-of-state students with respect to the influence of net cost on students' decision to access and attend SSPU. This means the cost of attending higher education in SSPU was high for out-of-state students from low-income families compared to in-state students from low-income groups.

"Out-of-state" refers to students who enrolled in colleges or universities away from their home of origin while in-state were those who enrolled within their home state. The study hypothesized that the proximity of HLI could increase or reduce the overall cost of post-secondary education for a section of students. A study by Paulsen et al (2016) indicated upper-income students are often less deterred by cost to studying abroad or within the region because they have the ability to pay unlike low-income students.

Net cost is the amount of money paid by a student to attend college education after deducting need-based merit grants or loans. The cost of attendance includes the money paid for both instruction and maintenance. Cost of instruction refers to money paid for academic purposes tuitions and other fees. Cost of maintenance consists of money paid to cover items such as food, transport, boarding, medicare and scholastic materials.

The cost of a college education climbs higher every year. In fragile, conflict and violent contexts, this figure quite often triples or even quadruple due to inflation. It is important for students to understand what those costs are when deciding on postsecondary education. The cost difference between in-state and out-of-state tuition at public colleges and universities is quite significant. However, there are different programme that students can access if they were helped to choose wisely.

In this study the researcher assumes that upper-income students were less bothered about cost of attendance. However, low-income families who study or choose to study far from their home of origin have difficulties making access options compared to in-state students. This is an area that has received little empirical attention since South Sudan independence. The finding indicates that although cost of tuition fees have remained relatively stable since independence due to tuition capping, the cost of maintenance has significantly rose due to the post-independent war.

The finding also shows that although cost of instruction was reasonable, the cost of maintenance was extremely high. However, students have not allowed worries over cost of education deter them for accessing high education. Document analysis, provided evidence that enrollment was on the rise, defying the political and economic situation. For example, students' enrolment had significantly increased from 1,520 in 2011 to 8,975 in 2014/2015 (The University of Juba Statistical Outlook, 2015).

For the researcher, this means that there was a growing understanding of the cost benefit of higher education to both the individual and public. Mayai (2017) and Hodgkin and Thomas (2016) however, described the great flexibility in enrollment as a clear evidence that South Sudan education system was resilient to political conflict. From the interviews it was clear that students also chose public universities because it was cheaper compared to private universities.

This study confirms the finding by Scott-Clayton (2013) who measured the level of importance students and/or their parents placed on academic and non-academic factors influencing demand in three private and one charter school in southwestern. The results revealed that 67% of the finalist indicated they planned to attend public institutions while 33% private institution. The analysis revealed students selecting private colleges placed a higher level of importance on three academic elements associated with: the quality of student/faculty ratio, curriculum and support services. However, students selecting public institutions paid considerable attention to the issues of cost, academic reputation of institutions, scholarship and their peer support for the institution. Which means cost was not the single most important factor influence access.

Another study by Frenetta (2004) examined how high school graduates living beyond commuting distance placed due consideration on cost of education. The researcher noted that high school students living beyond commuting distance from a university were far less likely to attend, especially if they were from a lower income family. Frenetta interpreted commuting distance in three ways; 0-40 km is within commuting distance, 40-80 km possibly beyond commuting distance, and 80 km or more.

A research by Falch, Lujala, and Strom (2013) estimated the impact of geographical proximity to K-12 graduates' choice of college. The study calculated detailed information on students' actual travel time between students' homes and colleges in Norway on students' achievement. A differences-in-differences model was used to measure the influence of time on achievement. The result found that reduced travel time has a positive effect on students' performance and attainment. Obtaining the type of technology is required to reduce time.

Danielle, Kaustav, Gail, and Wayne (2016) found that students who were commuters had more demands on their time, fewer opportunities to develop a strong commitment to their studies, find it more difficult to attend classes and to complete outside tasks required by their classes. While this study shows the benefit for choosing campus residential status, cost still remains a critical factor to realize this goal.

South Sudan post-secondary system has shown enormous resilience amidst varying challenges. Based on information in Table 19, there is a significant difference in the cost of attendance between in-state versus out-of-state. Although government controlled the sticker price, out-of-state students pay a difference ranging from SSP 10,000 to 15,000 more per semester to cover the cost of transport (internal and long holiday), food, boarding, healthcare and scholastically material. As a student examining postsecondary options, it is important to consider these substantial cost differences between in-state and out-state students.

4.4 Family Status and Students' Participation

Research question two examined the link between family socio-economic status (SES) and students' participation. Family SES refers to parental level of education, occupation and income. Research has shown that there is an association between parental ability to pay and students' decision to enroll in SSPU. But parental income is intrinsically linked with parental level of education (knowledge, beliefs, values, and goals) and occupation (what they do to earn a living).

To examine how family SES affects students' performance, the researcher identified the following six indicators to measure students' access-attainment. These included; parental education level, occupation, income, size and career guidance. Table 20 presents the results of frequencies and percentages analysis on the same;

Table 20

Family socio-economic factors affecting students' enrollment in SSPU

SES	Category	Father		Mother	
		F	%	F	%
Parental level of education	No formal	106	28	197	52
	Primary	84	22	75	20
	Secondary	65	17	58	15
	Diploma	47	12	28	7
	Bachelor's	50	13	11	3
	Master's	22	6	-	-
	Ph.D.	9	2	-	-
Parental occupation	Salaried	90	24	44	12
	Self employed	34	9	190	50
	Pastoralist	112	29	30	8
	Retired	67	18	17	4
Parental income	SSP* 1,000-3,000	192	51	240	64
	SSP* 4,000-10,000	106	28	75	20
	Above 11,000	21	7	11	3
Parental career guidance	No time	325	86	348	92
	Little time	53	14	15	4
	Full time	34	9	11	3
Family structure	1-5 children			39	10
	6-10 children			116	44
	Above 11			52	12
Parental ability to pay	Can afford			76	20
	Cannot afford			302	80

Source: Field Research, 2018

Note. *SSPU =South Sudan Public Universities*

SSP = South Sudan Pounds (350 SSP to a dollar as of April, 2018)

Data in Table 20 expose how students self-reporting on the influence of SES variables on their access-attainment: 52% of the respondents reported their mothers had no formal education compared to 28% who reported that fathers had no formal education. This means that more women than men cannot read and write in any language; 22% of the respondents said their fathers attended primary schools compared to 20% among mothers; 17% described that their fathers attended secondary schools compared to 15% among mothers; 12% stated that their fathers attended college education, 7% indicated their mothers; 13% specified their fathers were holders of bachelor's degree compared to nil among mothers; 6% stated their fathers have a master's degree compared to nil among mothers. This exposition shows that the number of female with higher degrees were increasingly smaller than those of male.

According to focus group discussion conducted in Uni. #B, participants commented that;

> There was a gap between male and female education in South Sudan. Parents' level of education, knowledge, beliefs, values, or goals can either affect positively or negatively students enrolment in South Sudan public universities. Parents who graduated from university were employed and very supportive of their children education at all levels. But parents who have no formal education are less associated with their children's' education enrollment (Uni. #B, Interview May 30th, 2018).

Similarly, interview with parents confirmed that the category of students adversely were females, disabled, first-generation, rural-based and children from large families. Par. #1 stated that children from large family structures were often unable to access due to affordability (Interview June 6th, 2018). Par. #2 associated illiteracy with poverty (Interviewed June 12h, 2018). Par. #3 observed that where there was resource constraint, female children were often sacrificed in early marriage to support boy-child education (Interviewed June 18th, 2018). Par. #4 stated that funding disable child has no economic return on investment (Interview June 24th, 2018).

From document analysis, there is increasing evidence of gender gaps between female and male. Data show that 81% of the enrolled students were male compared to 19% female in Uni. #B and 82% of the students were male compared to 18% in Uni. #A (the University of Juba Statistical Outlook, 2015, and the University of upper Nile Statistical Outlook, 2018). There is, however, no evidence to show gaps in access for disable, first-generation and geographical students.

The view on occupation was the most controversial of all the findings. The researcher noted that opinions appeared divided among pastoralist and farming communities. A student from pastoralist areas maintained that;

> A person with a large herd of cattle in South Sudan is considered wealthy even if he/she has no formal education. Similarly, a woman was considered blessed if she has many children even if she cannot afford to educate or feed them. The association of formal occupation with education is a Western concept Stud. #5 (Interview April, 2018).

The researcher agrees that the formal occupation with focus on the elites is a Western concept and informal occupation as defined above reflects cultural accomplishment with no claims of high income or level of education. Belonging to upper social class comes with some privileges, which places upper class families in high positions compared to low class families. The spill-over can be felt or enjoyed by their children.

However, there was consensus that parents with low or no formal education were less involved in their children's education, and rarely found time to provide career guidance to their children. Focus group discussion in Uni. #A conducted on 15th May 2018 illuminated mixed views on the role of parental and institutions with respect to career guidance;

> "My mother has no formal education but she is willing to support my education". But my father does not belief in formal education," he said "I did get my inherited wealth through formal education" (Stud #7).

A parent was concerned "not all parents have the ability to provide career guidance. But I spend time with my child discussing programme to attend at university" (Par #2). The view of university administrator was that students seeking access were helped by admission department to fill the form or other continuing students (Adm. #4). From this exposition, there is clear evidence that there was inadequate career guidance accorded students seeking access. From observation notes, there were also no private professional agencies closing this gap. Therefore, with a weak outreach system, the scrawny institutional and family support on career counseling is likely to contribute negatively to students' decision to enroll, remain enrolled and complete their studies in HLI.

Students' self-reporting on parental income also revealed another troubling feature of the influence of family SES on students' access and attainment. From Table 20, 51% that their father's and 64% that their mothers earned between SSP 0001 to 3,000 per month. This category earns less than $10 per month and is described as low-income earners in the study.

Form the second category of respondents, 28% reported the monthly of their father's, and 14% of their mother's monthly income ranged between SSP 4,000- 10,000 respectively. This group was described as the emerging middle-income class from 2005-2013. As a parent commented;

> Between 2005 and 2013, the numbers of the emerging middle-income group was on a rise. This groups earning could afford them live affluent life in the country and even send abroad their children for studies. This class owned cars and houses. However, after the post-independent political crisis, this category was humbled. Most of them brought home their study abroad children while at the same time resigned to low-income status (Par #4, Interview June 24th, 2018).

The third category of SSP 11,000-15,000 and above monthly income, 7% said fathers and 1% said their mothers were in the mentioned income bracket. From 2005 to 2013, this group was known as the upper-income group. "This group has also relapsed to middle-income class. However, those who sustained their earnings with some kind of business soar between middle and upper-income groups" said Par #1 (Interview June 6th, 2018).

Based on this explanation on family income, it can be said that the number of families in the low-income bracket have increased while the numbers of families in middle and upper-income brackets have decreased. There was a consensus among all participants on this classification of household income. In March 2018, the rate of exchange of a dollar to South Sudanese pounds (SSP) rose from SSP 3 (2005-2013) to SSP 333. The upswing in inflation in turn triggered the upsurge in the cost of living resulting to a negative effect on the study abroad as commented by one parent;

> Getting foreign currency is not easy for ordinary citizens in South Sudan. Both the banks and forex bureaus claim there are no dollars since 2013. Parents who have children in Uganda, Kenya or elsewhere have not been able to make transfer due to lack of dollars. As a result, they opted for their children to return home or accept their decision to drop out if they cannot return home (Par #3, Interview June 18th, 2018).

The researcher could definitely feel the concern of parents and understood how it was a painful choice for most parents. While affluent parents may still wish their children study abroad or at least in the neighboring countries due to insecurity and better facilities, the challenge, however, is how to finance such option at a time when inflation remains ever high.

Data in Table 20 indicate that 44% of the respondents reported that their family had 6 to 10 children, 12% described that their families had above 11 children and 10% claim their family has less than 3 children at independence. This exposition shows that the majority of families or households were large in structure. Document analysis confirmed that a typical South Sudanese household is still larger than five household members each (National Bureau of Statistics Welfare Monitoring, 2015).

Family size is described as the internal make-up of a family unit or the number of children and dependence in a household. Polygamy and parochial formulas have contributed to the proliferation of large family structures. A parent said, “Having a large family was once considered a blessing but not now. Currently, large family is synonymous with poverty and ignorance” (Interview June 12th, 2018).

In addition, data in Table 20 indicate that only 20% of the students reported their families could afford the cost of their children’s education while 80% stated that their parents’ income could not afford to meet the cost of their children's education. Focus groups discussion in Uni. #A revealed that;

> While government has control tuition caps, there are still a good number of students dropping out of college because of affordability issues. The most expensive item is the cost of food, boarding, transport, photocopy and medicare. Neither the government nor university offer financial aid to need-based students (Interview May 15th, 2018)

Although it is difficult to substantiate the rate of students who drop out or continue, students were concerned that lack of financial aid had hampered their decision to choose a programme or university location of their choice. The weak outreach system and lack of university websites tended to deprive students of the information they needed to plan for access-attainment.

Hypothesis Testing

A corresponding null hypothesis based on research question two stated as;

H_{o2}: There is no significant difference in mean between upper-income and low-income students with respect to the influence the family economic circumstance has on students' decision to enroll in South Sudan Public Universities

H_{a2}: There is significant difference in mean between upper-income and low-income students with respect to the influence the family economic circumstance on students' decision to enroll in South Sudan Public Universities.

A one sample t-test was used to determine whether there is a sample mean deviates between the proportion of students who agree and those who disagree with the null hypothesis. The two population means is reported in Table 21;

Table 21

One-sample t-test analysis on the difference in enrollment by family in-come

Decision rule: reject H_{01} if $\alpha \leq 0.05$, and fail to reject if t-value > p-value

Test Value = 0						
					95% Confidence Interval Level of Difference	
Are students from low-income less likely to enroll in SSPU compared to upper-income students?	T	Df	Sig (2-Tail)	Means Difference	Lower	Upper
	58.244	**377**	**.000**	**3.849**	**3.72**	**3.98**

where (t = 58;244), (df = 373), p = .000

Inference

Based on the statistics report, the observed t-value ("**t**" = 58,244), the degrees of freedom ("df" = 377), and the statistical significance (p-value). Decision rule: Reject H_{02} at α=0.05 if (t) > p-value, we reject the null hypothesis and conclude that there is significant difference in mean between low-income and upper-income families with respect to students' enrollment in South Sudan public universities. These result shows that enrollment in SSPU was skewed in favor of children from privileged families, which means a substantial proportion of students from low-income families do not participate in SSPU due to cost barrier issues.

The underrepresentation of low-income students in SSPU points out to strong disadvantages in the college admissions process. This finding indicates that low-income students face three momentous obstacles on their path towards admission; liquidity barriers, process barrier and lack of counseling barriers. Despite the tuition capping and provision of lunch vouchers, students from low-income families still face a significant liquidity challenges due to lack of financial aid arrangement and the out-break of the post-independent war, which re-displaced most families across the country.

While there was evidence that enrolment had increased in HLI, the retention and completion rates have been seriously affected by conflict and displacement. As such, college cost whether tuition, food, boarding, transport, reading material and medicare are significantly high even for students who initially assumed that public colleges were cheaper than private colleges A university administrator points out at the weakness in policy;

> The introduction of tuition fees while the civil war is raging was ill-advised. On the other hand, the imposing tuition caps and one meal per day without any significant financial aid to cushion need-based students were clearly grooming the elite class (Adm. #4 May 2nd, 2019).
>
> Another critical view advanced by a member of NCHE;
>
> The non-governmental sector is a party in a cost-sharing dispensation. The private sector drive enrollment in South Sudan by increasing school supplies at basic education and denying support at the higher level only serve to strangle enrollment, retention and completion. This has not only deprived students but also higher education institutions with the necessary support to cushion the most vulnerable students (NCHE #6 May 20th, 2018).

The admission process tends to favor the affluent communities. The use of TV, FM and notice boards has worked well for students who live in the large metropolitan centers. Those who live outside are often ignored by college recruiters due lack of a serious outreach programme or university websites. This means they do not get the proper information about selective programme offered at SSPU. This leads to widespread “under-matching” for many low-income rural students, in which they end up in low-cost programme.

Another reason for not applying is poor counseling. The majority of students indicated that their parents have no formal education. Some respondents pointed out that they even lack the right aspiration to send their own children to school. Without access to quality counseling, parents should not expect their children to miraculously access colleges or desired career choices. The mistake students make in choosing the right college follow them for the rest of their lives.

Parents should understand that “remaining in the league” requires better academic performance, proper information and financial resources. This means that although affordability issue features high, it is by no means the only factor affecting students’ from low-income enrollment in SSPU. A combination of a lack of access to resources to solidify prerequisites for acceptance, strong barriers to apply, and unfavorable admissions review procedures, make it significantly harder for low-income students to make it through the admissions process at the public universities.

Families vary by income. Research has shown that family status is an important determinant for students’ access. A study by Shen (2017) examined the effect of China fertility control policy on children’s education outcomes. The results show that a person with additional children will have 17% lower likelihood of completing middle school in China. In a sharp contrast with Chinese family control policy, South Sudan family policy informed largely by social and cultural practice view larger family size a blessing. National Bureau of Statistics (2015) population projection for South Sudan 2015-2020 reports that a normal South Sudanese household has on average five children. This has a negative influence on students’ participation, particularly those from first-generation group.

A study by Roksa et al (2018) examined the role of family resources in enhancing college access. They examined the relationship between family social and cultural capital and the probability of academic under-match and how these affect students' college-going attitudes and behavior. The study found that family social and cultural capital plays an important role in the understanding how students apply to college.

4.5 Students' Perception on Tuition Fees

Research question three sought to establish how do students' perceived the influence of government control of tuition pricing on students' ability to pay in South Sudan public universities. South Sudan adopted cost-sharing shortly after independence. The model provides that all enlisted students pay modest tuition fees according to government-based sticker price for programme offered. The introduction of tuition fees in a perpetual fragile setting without any financial aid intervention to cushion financially needy students may create barriers to access-attainment for students from low-income families.

To understand how students enrolled in SSPU perceive tuition fees, the researcher identified three indicators to measure whether tuition fees should be regulated or deregulated, frozen or abolished. Likert's modified scales with five options rated; 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree and 5 = strongly agree as illustrated in Table 22

Table 22

Students' perception of government control of tuition and fees

INDICATORS	SD ***F (%)***	D ***F (%)***	NS ***F (%)***	A ***F (%)***	SA ***F (%)***
Tuition fee regulated	51 (13%)	80 (21%)	7 (2%)	103 (27%)	137 (36%)
Tuition fees deregulated	154 (41%)	114 (30%)	10 (3%)	30 (8%)	70 (16%)
Freeze tuition fees	107 (28%)	124 (33%)	30 (8%)	70 (19%)	47 (12%)
Free education	50 (13%)	40 (11%)	11 (3%)	92 (26%)	175 (46%)

Source: Field Research, 2018.

As shown in Table 22, 63% of the students preferred government control of tuition pricing, 34% disagreed that the locus of power to set fees be left to government and 2% were undecided. The majority of the respondents prefer government maintain the authority to set fees.

Participants of a focus group discussion in Uni. #A were asked if they prefer the government to regulate tuition fees or this role be given to public universities. Their responses vary;

> We (students) support the view that the government should continue to regulate tuition fees. Universities are currently under pressure due to the decline in state appropriation. Given the rise in the cost of living, we fear they will adjust tuition cap severally to increase their total revenue. The cost of education is already high for a section of the population. Any increment on tuition pricing will only send home children from poor families (May 15th, 2018).

This position was also supported by parents and members of the NCHE. One of the parent said, "Most parents are already overburdened by the rising cost of living and instability. They cannot support any arbitrary tuition raise" (Interview June 24th, 2018). A member of NCHE said, "The council had to step in to regulate fees. Higher education has benefits both individual and public" (Interview May 05th, 2018).

But not all agreed, university administrators had deferring opinion. They believed that in the light of declining state appropriation, late disbursement, rare personnel salaries, it was only appropriate that universities raised fees directly from its beneficiaries according to the changing market condition as illustrated in this statement;

> The deregulation of tuition fees should have occurred yesterday when the government opted for neoliberal approach to fund higher education. Relaxing of tuition will give SSPU greater discretion to handle the rising cost of living, and autonomy to set policies on tuition fee control (Adm. #1 interview April 20th, 2018).

There was a follow up question; should SSPU be given the discretion to set tuition fees. There were varying opinions about this issue. Data in Table 22 show 71% of the students preferred that universities should set their own fees, 24% refuted that public universities should set their own tuition fees. However, 5% of the respondents were undecided. The means the majority of the students agreed that the government maintains the locus to set fees. A university administrator (Adm. #3) commented;

> Higher education institutions should be allowed to set tuition caps in the event where government experiences extreme austerity. Disbursement of state appropriation are not only behind schedule but have also declined over the period. Coupled with delays in staff salaries, it better that government grant public universities the autonomy to set tuition pricing (Interview April 28th, 2018).

But parents and students expressed reservations on the grounds that public higher education institutions are service providers and not a business. Document evidence indicates that the prerogative to set tuition caps belongs to NCHE (Higher Education Act 2012). As a member states, “the political rationale for this decision is to keep tuition capping low as a means to make higher education accessible, affordable and equitable to all, particularly to the most vulnerable citizens of South Sudan” NCHE #6 (Interview May 20th, 2018).

From observation, the reality is that South Sudan tuition pricing for public universities has been very modest even for students from low-income families. The university administration reacting to austerity assumes that if public universities have the authority to set caps, they could flexibly address the rising cost of living as well as the running cost. There are three essential hard truths that the government of South Sudan could do to re-purpose higher education policy.

First, government should package HLIs as a part of its inter-generational contract with the society, where investment by previous generations benefits the current generation and the circle continues. Second, parents should recognize that tuition and fee pricing is only a small percentage of the entire cost of education. This means, the real cost of attendance is higher. Third, public universities are national institutions of higher learning and not a profit generating industries. Government should mobilize funds under the cost-sharing scheme from all stakeholders rather than transferring the full burden of austerity to students and their parents. Education has both private and public good.

Data in Table 22, illustrate that 61% of the students preferred government to freeze fees until a financial aid scheme is established, 31% supported government tuition price control without any financial aid programme and 7% were undecided. The conversation on government to freeze the implementation of tuition fees rather than sugar-coating it tuition caps to social, economic and political dimension.

A parent said, “The introduction of tuition fees was not only inappropriate policy but also undesirable solution in the face of extreme austerity and perpetual civil war” (Interview June 6th, 2018). Such utterance shows that in moments of weak economic growth, cost-sharing entitles the government to mobilize funding not only from students and their parents but also from the entrepreneurship, bilateral and multilateral sectors. From observation and interviews, this is not happening and donors have focused their support towards basic education. This aspect may require better coordination.

Although there is an expansive presence of bilateral, multilateral and private foundations working in South Sudan, higher education system have not yet developed a working formula. “International aid has currently focused on basic primary and secondary to some extent when educational system as whole requires technical and financial support” said NCHE # 5 (Interview May 15th, 2018).

In a focus group discussion, Uni. #A said, “Although we prefer that public universities should be free at this time in history, we recommend that, in the worst scenario, the government through the NCHE maintain the locus to set tuition caps” (Interview May 15th, 2018). However, focus group discussions in Uni. #B consistently maintained its support for free higher education. But they expressed fear that the lack of financial aid to support need-based students has passed the burden of higher education to students and their parents (Interview May 30th, 2018).

Hypothesis Testing

Research question three generated the following hypotheses:

H_{o3}: There is no significant difference in price sensitivities between students groups who support government control of tuition capping and those who prefer South Sudan Public Universities to be granted the right to set their own sticker pricing.

H_{a3}: There is significant difference in price sensitivities between students groups who support government control of tuition capping and those who prefer

South Sudan Public Universities to be granted the right to set their own tuition fees.

The researcher sought to establish the influence of the locus of authority to set tuitions fees on students' ability to pay for their academic programme in South Sudan public universities. A one sample T-test was used to determine whether there is any **s**tatistical difference between a sample mean and a known or hypothesized value of the mean in the population of students who agree and those who disagree with the null hypothesis. The difference between the two population means is reported in table 23;

Table 23

One-sample t-test analysis of students' perception on the locust of authority to set fees

Decision rule: reject H_{01} if $\alpha \leq 0.05$, and fail to reject if t-value > p-value

Test Value = 0						
			Difference		95%Confidence Interval Level of	
There is no difference between the proportion of students who support government establish tuition fees and the proportion who prefer universities to set their own fees	t	df	Sig (2-Tail)	Means Difference	Lower	Upper
	53,990	377	.000	3.616	3.48	3.75

where (t = 53.990), (df = 377), p = .000

Inference

Statistics report the observed *t*-value is 53,990, the degrees of freedom ("df" = 377), and the statistical significance (*p*-value) **("**Sig.") of the one-sample t-test, $p < .05$. The decision rule is reject H_{03} at $\alpha=0.05$ if (t) > 0.05. Since the absolute value of our test statistic (53.9) is greater than the critical p-value, we therefore rejected the null hypothesis and concluded that there was a difference in mean price sensitivities between students who support government regulated tuition fees and those who prefer university controlled tuition pricing. This means that students had a strong preference for government control of tuition pricing compared to public universities set tuition fees.

From my focus group discussions and observation, there was a consensus among students that the most preferred option to promote access was a return to "free" higher education system, and their parents a freeze on tuition fees until financial aid option was available to cushion students. The pro-poor option was also supported by the members of NCHE but was less appealing to university administrators as a student commend;

> Universities have adjusted user charges annually. We (students) fear that user fees will soon overtake tuition which has remained relatively stable for a long time. Universities are operating under a lot of stress in the event of slow disbursement and sharp decline in state appropriation. We fear that public universities will adjust fees to cover for the deficit despite the fact that country is experiencing extreme economic austerity, and political upheaval Stud # 10 (interviewed April 29th, 2018).

This comment was rebutted by an administrator who said, "The deregulation of tuition fees should have occurred yesterday as a matter of quality assurance rather than charity. Teaching and learning is a smart investment but it is not cheap" Adm. # 2 (Interview April 4th, 2018). Both have very strong points. But the debate on quality and equity-in-access do not often dance in the same hall in a fragile conflict and violent countries.

The relaxation of existing control on tuition fees in South Sudan was a less attractive option because of concern that public universities could hike fees without warning to meet the running cost. There is growing evidence that tuition fees can either be an enabler if students can afford or disruptive if they cannot afford (Orr, 2015; Marcucci, 2013).This has made tuition an important policy agenda for government, universities, students and their parents.

Students' believe tuition fees were undesirable and inappropriate through the support of tuition capping. On the other hand, public universities agitated for tuition but detested it when the authority to set tuition caps remains with the state.

In essence, capping of tuition fees allows the government to exercise discretion to keep tuition fees low as a way to create equality of opportunities and outcome. But keeping tuition down is not an end in itself but a means to an end. Tuition fees in public universities have to be synchronized with effective state appropriation and financial aid. For addressing access to low-income students by undermining universities' concern for quality service may affect university graduates ability to form in the world of work. It is critical, therefore, for the government to ensure that tuition, financial assistance and gift aid work in tandem.

Research by Kim and Ko (2015) analyzed state efforts to control tuition fees over the past 10 years using data from 50 states and 540 public- 4-year universities and colleges. Their findings revealed that institutions which link tuition with financial aid and state appropriation offer low sticker price compared to those who depend entirely on tuition fees. It also found out that tuition was more likely to increase where private HLIs have the locus of authority to set tuition fees. This indicates that the rationale for keeping tuition fees low is to promoting government control of tuition caps.

A study by Dawkins (2014), on the same issue, proposed three alternative degrees of a flexible fee mechanism through a combination of tuition caps, loan and state appropriation in a 'taper model'. This model suggests that when tuition fees are raised above threshold level, scholarship is incorporated to cushion students from low socioeconomic background and state appropriation allocate to minimize its effects on HLI. For any social and funding support provided to subsidize all registered students across income lines can reduce attrition rates and raise success rate.

The researcher concurs with Dawkins' taper model, and argues that what is required for South Sudan is not deregulation of tuition and fees or a return to "free" higher education model. But an effective synchronization of tuition fees, with state appropriation and financial aid. If tuition fees were kept at a nominal level and state appropriation continuously declined or disbursement conducted irregularly, then the burden of funding is transferred to the HLI who on the contrary off-load it to students and their parents through fabrication of unnecessary user fees.

Hence, this finding reveals that tuition fees regulation is positively associated with students' participation if it is synchronized with effective state appropriation and financial support. The implication is that if fees were higher and state disbursement slackens the burden of cost is transferred to students and their parents, thereby, creating barriers to access for students from low-income families or other marginalized groups. The link between tuition cap and access is critical and must be regulated by a policy or legal framework.

4.6 Students' Perception on Launch Voucher Programme

Research question four sought to determine how do students perceived the influence of public-private lunch vouchers programme on students' academic progress in South Sudan public universities. Food insecurity still remains one of the most pressing global health and educational problem today. Hunger has either threatened or increased the possibility of drop out for students already at campus. SSPU offers to all registered students hot meal to alleviate short-term hunger and enhance attendance through public-private lunch voucher partnership programme.

This partnership is an arrangement between government and the private sector aimed at providing on-site hot meal to students who may be at risk not to participate because of food insecurity. Untargeted and open-ended lunch intervention is a good idea in a fragile, conflict and violence context. But it could be expensive and unsustainable to manage in the long run.

The researcher identified five indicators on how lunch vouchers affected students progress in the public universities in South Sudan and rated them against Likert's modified scales of; strongly disagree (1) disagree (2), not sure (3), agree (4) and strongly agree as indicated in Table 24:

Table 24

Students' perception of the free lunch vouchers programme

INDICATORS	**SD** ***F (%)***	**D** ***F (%)***	**NS** ***F (%)***	**A** ***F (%)***	**SA** ***F (%)***
Pro-poor intervention	105 (28%)	140 (37%)	7 (2%)	76 (20)	50 (13%)
Increase enrollment	61 (16%)	85(23%)	14 (4%)	107 (28%)	111(29%)
Improve attendance	40 (11%)	76 (20%)	11 (3%)	160 (42%)	91 (24%)
Full meals per day	124 (33%)	147 (39%)	30 (8%)	70 (19%)	7 (2%)
Programme sustainability	111 (29%)	146 (39%)	10 (4%)	71 (18%)	40 (11%)

Source: Field Research, 2018

The data in Table 24 indicate that 65% of the students disagreed that the lunch vouchers scheme targeted low-income families, 33% agreed while 2% were not sure about the policy objective of the programme. This means the majority of the students did not believe that the lunch voucher system was designed to strengthen access for the most vulnerable groups. As such, its targets were too wide to reduce vulnerability and widen access-success in SSPU.

Opinions were divided about whether food security programme support: launch voucher in this study should target the most vulnerable or provide a blanket cover. One of the university administrators commented;

> In the past, the stigma associated with the meal vouchers as a pro-poor campus intervention has discouraged most students from the upper and middle-income families from lining-up for the meals. But now the distinction between the poor and rich has narrowed down because of the rise in the cost of living due to the protracted civil war (Interviewed Adm. #4, April 7th, 2018).

From document analysis it was hard if not difficult to ascertain who was poor and who was from upper-income families as the students' records did not always capture parental income profile. It is also difficult to establish from mere field observation that the beneficiaries were either from the lower or upper income echelon. This means to target students from pro-poor group there was a need to repurpose data collection in order to support this initiative.

From data on Table 24, 57% of the respondents suggested that lunch programme increased enrollment, 39% disagreed while 4% were not sure. This means a slim majority of participants believed that lunch vouchers enhanced enrolment. As commented by a student, "Availability of college feeding programme encouraged me to choose public university in South Sudan as my location of study. It has reduced my cost of attendance and enabled me focus on my academic issues" (Interviewed: Stud # 8, April 25th, 2018).

Some students, however, stated that food was not the only issue affecting choice. Other issues include; transport, accommodation, medicare, teaching and learning material. One of the food contractors stated that the lack of safe water was the most pressing challenge;

> Getting a safe drinking water is our main challenge. There are no piped water connection; no borehole or protected dug well; no infrastructure for collecting rainwater; and distant from the River Nile; Water is provided by the vendors who ferry water using tanker trucks for general services. Those who afford can buy drink bottled water but the majority of students' survive on the tanker truck water for drinking and sanitation purposes such as septic system and flush latrine. (Interview CTR # 1 June 5th, 2018).

From observation the current political situation and economic challenges the citizens faced provided concrete evidence on the risk of drop-out due to food insecurity.

Data in Table 24 also indicate that 66% of respondents agreed that lunch voucher arrangement improved college attendance, 31% disagreed while 3% of the students were not sure. This suggests that there is a link between food security and attendance as a parents expressed, "When government provides food to our children, we are encouraged to send them to school because it reduces students' net cost" (Interview Par # 2 June 12th 2018).

A university administrator (Adm. # 1) added, "Campus meal plays a great role in students' attendance. Even students who have no lessons on campus still congregate around for meals. For university administrators, this gives them an opportunity to do one or two academic activities" (Interview Adm. # 1 June 6th, 2018).

From data in Table 24, 72% of the respondents suggested that they received only one meal per day, 26% agree that they received a full meal per day while 8% were not sure. This exposition shows that the majority of students concurred that they received one meal per day. A member of the focus group discussion in Uni. B said,

> Students receive one on-site meal to alleviate short-term hunger. While this helps them concentrate in their classes, it is not adequate to sustain a student for the whole

> day. Students hope the government could reconsider increasing both the quantity and number of meals per day (Interview May 30th, 2018).

Similar concern was also echoed by food contractor who explained:

Food contractors in Univ. # A and Univ. # B provide as per the tripartite contract one meal per day. The country is at war and food is important from neighboring countries. But getting foreign currencies to important large volume of food from abroad is difficult. Although we fight-back the threat of hunger on learners, we recognize that one meal is not enough. However, if the government fast-tracked the release of our outstanding payments, we could in the next contract consider providing additional meals at a cost (CTR # 2 June 10th, 2018)

University administrators maintained that hunger and insecurity has diminished the chances for students to access-succeed. By addressing hunger, the government has endeavored to ensure that no student is left behind because of food insecurity due to their family socio-economic situation. “The immediate benefit is to improve attendance” said Adm. # 3 (Interview April 5th, 2018).

While the demands for additional meal is re-echoed by all the sampled population, the public-private partnership in provision of food to higher education was a practice in the former Sudan. From observation and document analysis, it is unlikely that the government will be digging deeper into her pocket when priority is defended the country. For students already in the system, this is a challenge pointing to a possibility of access without success. The risk of dropout is high for those who cannot afford to provide additional meal for themselves.

“The public-private partnership on lunch vouchers is a business relation and not a charity” said a CTR # 2 (Interview June 24th, 2018). It is naïve to expect the private sector to increase a meal at no cost or no profit. By the fact that food is imported, efficiency in payment becomes very critical to extradite the process. But the long term solution is strengthening local farmers to supply their universities.

The exposition in Table 24 indicates 67% of respondents disagreed that the current food programme was sustainable, 29% believed it was sustainable and 3% were not sure. The majority of the respondents believed that the current policy intervention was viewed largely as an emergency rather than a development agenda. A philosophy on food security was still lacking as mentioned by a member of NCHE said “The enduring practice lacks a legal framework comparable to those of India (Interview NCHE # 2 April 28th, 2018).

The payment of contractors already discussed indicates the need to repurpose the government policy on campus food security. As pointed by a university administrator “Sudan was a head of the game because it deployed an independent body to take-care of food for education works” (Adm. # 4 April 7th, 2018). But system was disbanded because of its funding philosophy in 2011 by NCHE. Attempt to copy and paste the practice in South Sudan has hit a snag because of the on-going war. A committee that has been constituted to reconceptualise the campus food security programme suspended it works due to lack of funding.

The tripartite arrangement itself has been weakened by its internal coordination mechanism. The multi-sectoral steering committee rarely meets both at the decentralized and strategic level. The link between the universities and the production centres are unpredictable. The lack of effective leadership has increased inefficiency to meet targets at all levels of the chain. The weakness in the management style has severe repercussions on standards of food and numbers of beneficiaries, which appears to create haemorrhage of public funds. If nothing is done, the food programme for education will continue to drain money from the core functions of higher education.

Hypothesis Testing

A null hypothesis was drawn from the research question. The researcher predicted that;

H_{o4}: There is no significant difference in price sensitivities between the category of students who support universal lunch voucher system and those who prefer the targeting of the most vulnerable.

H_{a4}: There is significant difference in price sensitivities between the category of students who support universal lunch voucher system and those who prefer the targeting of the most vulnerable.

To test the null hypothesis, a one sample t-test was used to determine whether there was any statistical difference in these proportions of those who support the view that the lunch voucher system target only the most vulnerable and those who support the assumption that it has to provide a universal orientation. The result of one sample t-test is shown in Table 25.

Table 25

One-sample t-test analysis on students' perception on lunch intervention

Decision rule: reject H_{01} if $\alpha \leq 0.05$, and fail to reject if t-value > p-value

Test Value = 0						
					95% Confidence Interval Level of Difference	
Should the lunch voucher target merely the most vulnerable students or cover all those who registered in SSPU?	T	Df	Sig (2-Tail)	Means Difference	Lower	Upper
	39.866	377	.000	3.516	3.34	3.69

where (t = 39.866), (df = 373), p = .000

Inference

Based on data in Table 25, the obtained *t*-value is 39.866, the degrees of freedom (df = 377), and the statistical level of significance is 0.05. Decision rule: reject H_0 at α=0.05 if (t) > p-value. Given that t = 39.866 is greater than p-value of 0.000, we therefore rejected the null hypothesis and concluded that there was significant difference in cost sensitivities between student who support the view that the lunch voucher system should target all those registered in SSPU. This means that, with regards to the lunch voucher programme, the participants were less sensitive to cost.

It is deduced that the majority of the students support universal orientation rather than the most vulnerable. The lunch voucher programme provides hot free lunch to over 20,000 registered students in five public universities in South Sudan. The programme is aimed at solving the short-term hunger students' face that may hinder their active participation. In this partnership: the private sector provides catering services, accommodation and water; universities through the dean of students supervise the implementation and; the Ministry of Higher Education through the Ministry of Finance pays for service on behalf of government.

The proponents of universal lunch coverage have maintained that universities do not have data on students and/or their parents' income profile, which makes it cumbersome to desegregate students into low-income, middle-income and high-income groups. Second, in the light of the post-independent civil war and subsequent economic fragility, the emerging middle class who used to earn above SSD 10,000 are now reduced to low-income groups. This means the stigma which was associated with relief food as support for a few helpless groups does not anymore exist, where everybody appears susceptible.

The opponents of universal lunch coverage argued that the scaling up of the numbers of beneficiaries without substantial increase in the budget merely results into significant reduction in the numbers of meals and quality of care. Second, an expansive food project not timely paid was likely to accumulate interest and become a recipe for corrupt practices that would inevitably drain money away from core functions of higher education. Third, the current lunch voucher had no clear implementation policy and legal covers, which made it, open to abuse.

Research has shown that different countries have adopted different policy and legal framework to justify their campus food insecurity interventions. A survey by Drake et al (2016) college feeding in selected European countries (England, France, USA, Italy and Finland) was to tackle the rising levels of obesity (nutrition and health). Brazil also used the same rationale.

However, in selected middle and low-income countries such as Ghana, Kenya, Mali, Rwanda and India the rationale for NSFP vary. In Ghana, the food programme is used as a measure to tackle poverty, improve nutritional status of communities, increase enrollment and attendance. Kenya used the programme to increase enrollment, attendance, and retention in targeted arid and semi-arid areas. Rwanda and South Africa used it to improve access and quality (Drake et al, 2016).

Food security still remains one of the most pressing global health issues today. It is, therefore, important to justify intervention by objective goal and legal framework. Untargeted intervention is a waste of public resource and difficult to sustain. There is need to address issues of funding before assigning numbers to prevent financial hemorrhage. A clear definition of target group is important not just to fight hunger and poverty but also to improve inclusive growth in access and attainment, particularly among the most vulnerable groups. Second, the provision of food should not be divorced from the central goal of teaching and learning, research and community services. Third, the involvement of the community in the production of food for education provides a life-line not merely to cost-effective address food insecurity in a sustainable manner but also strengthens the local economy.

4.7 Challenges Facing Students' Participation in SSPU

Research question five dealt with the major challenges facing students' participation in South Sudan public universities. Whether or not students will be able to participate in SSPU will depend on their family ability to provide answers to the following challenges.

4.7.1 Net cost as a barrier to students' decision to access and attend

Participants were asked to identify how net cost affects students' decision to apply and attend SSPU. Table 26 presents findings on how net affects students' decision to choose where and what to study in SSPU.

Table 26

Rising cost of higher education influence students' decision to apply and attend SSPU

Challenges	Frequency	Percentage
The rising cost of transport	96	25
The rising cost of boarding	87	23
The rising cost of food	53	14
The rising cost of scholastic material	38	10
Balance between work-family-study	30	8

Source: Field data, 2018

Based on data in Table 26, 25% of the respondents identified transport as the major challenge, 23% boarding, 14% food, 10% teaching and learning material and 8% the balance between work-study-family. This means that although the cost of tuition appeared stable over the last seven years, the costs of maintaining a student in SSPU was high and varied by location of home from college. Students' participation in SSPU will depend on whether their family can afford the cost of higher education given that there are currently no provisions for state/private grants or loans.

However, the fact that the enrollment has increased over the same period cannot be explained by the nominal tuition fees alone but rather by students and/or their parents awareness of the returns on investment and recognition that SSPU was still cheaper compared to private universities. Focus group discussion in both sampled universities underscored that the cost of transport, housing, food, scholastic material, and balance between work-study-family were the major challenges for students' who reside outside their home districts (Interview May 15th and 30th, 2018).

While renting outside the city business district was cheaper, it has its drawback as students connect several buses to reach the campus. "I often miss some lectures or get home late because I have to trek to and fro college due to rising cost of travel" said Stud # 5 (Interview April 19th, 2018). Out-of-state students also travelled to the nearest state capital to access announcement on vacancies and how to apply. "The higher education admission system uses TV, FM radio or newspapers and notice-board to recruit students but this medium is not accessible" (Stud # 10, Interview April 29th, 2018). Such approach definitely favours the affluent 'nation'

Another challenge experienced by non-traditional students is how to maintain the balance between study-work-family at time where the families are displaced and contacts are especially difficult due to the remoteness of the region. "I am often homesick because I miss my children, wife and parents," (Stud #6 Interview April 28th, 2018).

4.7.2 Family Economic Circumstance as a Barrier to Students' Access

Participants were further asked to identify how family economic circumstances affect access and students' academic participation in SSPU. Table 27 presents findings on how family socio-economic situations affect students' participation in South Sudan.

Table 27

Family economic conditions affect students' enrollment in SSPU

Challenges	**Frequencies**	**Percentages**
Parental level of education	140	37
Family structure	118	31
Family income	70	18
Lack of counseling	50	13

Source: Field Research, 2018

Data in Table 27 indicate that students' access-success was skewed towards students from upper-income families because they were less sensitive to cost. The respondents reported that the factors contributing to such disparity were: parental level of education (37%), family structure (31%), family income (18%) and lack of counseling (13%). This means that despite government tuition capping and free lunch, students from low-income families were more at risk compared upper-income to access and complete their studies in SSPU due to family socio-economic circumstance.

Focus group discussion reveal that students whose parents receive less than SPP 3,000 (less than $ 9 per month) are at risk to enroll and those whose parents receive between SSP 5,000 to 10,000 are at risk to drop out if they come from a large family structure (Interview May 15th, 2018). The majority of students' reported both their fathers and mothers lacked formal education and earned less than SSP, 3000 per month. Income inequalities have placed stratification in students' access-success. In developing countries and especially South Sudan, income inequalities have been associated with poverty and conflict over resources.

Economic inequalities affect students' desire to choose what and where to enroll. But this study shows that even though economic factor is important, it is by no means the sole factor influencing access. Other factors include: personal inspiration, social support from the significant others such as teachers and peers. The way institutions market it programmes also increases the likelihood for students' access.

There is a consensus that large family structures are still common. Students coming from large family structures reported that their parents could not afford the cost of tertiary education. Students from polygamous families' said their mothers were more sympathetic and concerned about their education compared to their fathers. A member of NCHE attributed gender disparities in higher education to the pressure of large family structures to marry out their girl for wealth to liberate the families from all forms poverty.

Some students reported that their parents had no time to provide career counseling and gender bias were obstacle to access-success. The majority of students reported that their parents lacked the ability to provide professional counseling and often were gender biased. "Many families in South Sudan would choose the education of a male child compared to a female when the family experiences financial stress" said Stud # 4 (Interview April 14th, 2018).

4.7.3 Financial-aid Challenges Affecting Students from Low-income Families

The researcher also deemed it important to identify challenges facing the regulation of tuition pricing in facing access and students' academic participation in SSPU. Table 28 presents financial challenges affecting students' participation in South Sudan.

Table 28

Lack of financial aid present impediment to student' participation

Challenges	**Frequency**	**Percentage**
A return to "free" higher education	143	38
Value for their money	109	29
Poor financial mobilization strategies	75	20
Decline state expenditure	45	12

Source: Field Research, 2018

Data in Table 28 indicate that 38% of the respondents preferred a return to 'free' higher education, 29% were concerned that they were not be receiving value for their money 20 % cited poor financial mobilization strategies, and 12 % reported decline government expenditure on higher education. This means that tuition fees were not a major hurdle but state strategies for the mobilization of funding represent a significant hurdle.

No wonder some students and their parents were nostalgic about the return to "free" higher education. The opponents of tuition fees expressed concern that the introduction of tuitions fees was misguided, wrongly timed and undesirable business for a fragile, conflict and violent context like South Sudan. Some of them felt the government did not provide the leadership and criticize them for panicking in the face of the continuing civil war. Par #4 cited that Khartoum government maintains "free" higher education even at the heights of 50 years' war (Interview June 24th, 2018).

Document analysis show that in November 2016, United Nation Mission in South Sudan estimated that more than 200,000 internally displaced persons were sheltered within six PoCs across the country, unspecified number of students were also there. University of Upper Nile, for example, relocated from Malakal in Upper Nile State to Juba in Central Equatorial. These were clearly sign of lack of safety and security.

As a matter of principle, all public universities receive subsidies from government. This offers government an opportunity to regulate tuition caps. Stud #10 said, “Without tuition control, I could not been admitted into college of medicine because my father cannot afford to pay for such a programme” (Interview April 29th, 2018).

But for most students their parents’ socio-economic situations have forced them to choose low cost courses. University administrators do not, however, share such excitement as an Adm. #3 said “There is no point controlling tuition when subsidies are perennially delayed and state appropriation continuous declining. Public universities should be left free to determine tuition caps according on basis of demand and supply” (Interview April 5th, 2018).

There is research evidence that tuition pricing is a political act. If universities were allowed to set their tuition caps, then they could adjust severally depending on the market forces and political and economic pressure. This in essence could heighten the risk of access-success for students from marginalized groups. However, if government controls tuition caps but does not synchronize it effectively with state appropriation and financial aid, then universities cannot assure quality, which undermines the quality of graduate and may continue to alienate the world of work.

4.7.4 Shortcomings in the Implementation of Lunch Voucher

Participants were asked to identify challenges affecting the lunch voucher programme offered at SSPU. Table 29 reports on how food insecurity affects students’ access-success in SSPU.

Table 29

Factors affecting the lunch vouchers programme sustainability

Challenges	**Frequency**	**Percentage**
Importation of food	113	30
Ambitious target of the programme	99	26
Humanitarian institution indifference	93	25
Perennial delays of payment	73	19

Source: Field Research, 2018

Data in Table 29 indicate that the lunch voucher programme has alleviated short term hunger, although the programme is neither cost-effective nor sustainable. Factors contributing to these challenges are; food imported from other countries as reported by 30%, ambitious targets by 26% of the respondents, while 25 % indicating humanitarian agencies indifference to support the food programme and 19 % cited perennial delays in paying private sectors service providers.

By targeting all enrolled students, the government has merely solved one problem by creating another. Its analysis of the situation may have reduced the stigma associated with the traditional concept of school feeding as a safety net for the most vulnerable students. But scaling-up and consolidating these interventions requires considerable resources and a steady flow of funds is risking the cost-effectiveness of the programme as well as sustainability, which will in turn affect students' participation.

Students view the indifference of humanitarian organizations as a challenge. Stud # 7 said "I live in the UN protected sites. I am protected from unknown gunmen but not supported to study – something for which I always risk venturing outside this designated camps" (Interview April 23th, 2018). However, not much intervention is extended to higher education as institutions as well as to students who live in the protection of civilian sites. For the recognition that there will be no food is in itself enough to deter students to access and attend SSPU, leave alone the stamina required to endure the training.

Both students and food contractors have cited poor coordination as one of hurdles to students' access and attainment. The lack of robust implementation policy and legal framework means the system was managed as an emergency programme. There is very little political will to institutionalize campus food security programme. The multi-sectoral steering committee rarely meets. This has placed the programme in the hands of a sole proprietor and in most cases left on an auto-pilot mode as there is no collective answer to questions affecting lunch voucher programme. "Even the red-tape in recruitment and protracted delays in payment are susceptible to sleaze draining resources away from the core mission of higher education" (Adm. #2 April 24th, 2018).

The importation of food from other countries raises two concerns: the cost of food is high and lack of involvement of the local community in food production. The sustainability of a universally food targeted programme depends on lowering cost by increasing supply of food from the proximity. CTR # 1 said, "If food was produced locally, the price of food could go down as local farmers benefit. For the moment, we (contractors) import food from neighboring countries and cannot afford to offer two meals if we are not paid promptly" (Interview June 5th, 2018).

The infrastructures and logistics of managing the cooking present a huge challenge. CTR #2 added that "Cooking is done either under trees or in temporary structures. When it rains, we use either one of the lectures halls or its verandah" (Interview June 10th, 2018). This means that cooking either disrupts teaching and learning programme or the hygiene issues are compromised. There is a consensus among all participants that the lack of clean drinking may compromise sanitation of kitchens and watch-rooms.

From such as a finding it can be concluded that the four major shortcomings affecting the implementation of lunch voucher programme. These include: the rise in the cost of operation due to inflation, infrastructure and logistic challenges, poor coordination of programme, delays in payment of service providers. There was unanimity among participants that the school feeding programme enhances students' participation. However, there was no evidence to show that food provision increase retention and completion rate. This is an area which requires further research.

4.7.5 Political and Humanitarian Context and Students' Participation

Findings on challenges included political and humanitarian context as presented on Table 30.

Table 30

Identified political factors affecting access and students' academic participation

Challenges	**Frequency**	**Percentage**
Exclusion of women and girls	107	28
Education is not a priority	94	25
Attacks on educational institutions	67	18
Quality of public university	60	16
Management of public university	50	13

Source: Field Research, 2018

From Table 30, one of the cross-cutting issues acknowledged by all participants is the impact of the political and humanitarian context on students' participation. Sudan gained independence from Anglo-Egyptian rule in 1956. Until the signing of the Comprehensive

Peace Agreement in 2005, Sudan and South Sudan was one country. Since then, South Sudan has not known peace as it has been in continues civil war. By the time of this research, the country was experiencing a post-independent civil strife that disintegrated the party that championed independence (Hilda-Johnson, 2016).

The consequence of the instability is both complex and widespread. Political instability has created a complex context for the education system in general and higher education in particular. Focus group discussion identified the following challenges: displacement and the relocation to the University of Upper Nile from Malakal to Juba; increased staff turnover as staff and students forced to migrate; food insecurity and malnutrition; lack of safe drinking water and poor hygiene of HLIs.

Similarly, document analysis indicated that enrolment rose, students' participation was much subdued as they struggled to cope with the challenges of access, progress and completion. Oywak et al (2019) underscored that while higher education system appeared resilient, students were overwhelmed. Out-of-state students from low-income families were facing the highest challenges compared to in-state students. This indicates that the teaching and learning environment was not conducive for quality education.

4.7.6 Economic Context of Students' Participation

The participants also reported economic factors as affecting access and students' academic participation South Sudan as presented in Table 31.

Table 31

Economic challenges affecting access and students' academic participation (n=330)

Challenges	**Frequency**	**Percentage**
Education is treated not as one of the top priority	87	23
Poor mobilization of revenue among stakeholders	61	16
Tuition accounts for 8% of the basic function	53	14
International development assistance	48	13
Parents pay more for scholastic material	40	11
Low lecturers remuneration	33	9
Quality of services affected by corruption	20	5
Procurement of services	14	4
Inefficiency in education spending	12	3
Difference in household income	10	2

Source: Field Research, 2018

From data in Table 31, 23% of the respondents mentioned that education has dropped from its usual top priority 16% of poor mobilization of revenue is responsible for deficit in funding students access, 14% responded that low tuition fees explains the economic challenges faced by higher education institution in procuring access, 13% pointed at the lack of international assistance, 11% parents pay more for scholastic material 9% low lecturers salaries. 5% money loss through corrupt services deals, 4% procurement of services, 3% inefficiency in spending and 3% household income differences among others.

Since 2013, government allocation to public universities has dramatically reduced as enrollment rose significantly despite the political challenges. The mobilization of other sources of funding has been particularly weak. Tuition fees and other administrative charges, accounts only for 8% of the cost of recurrent expenditure. Adm. #1 commented, “Insufficient revenue and less commitment to higher education have hindered the provision of services, which are geared towards lessening the burdens on low-income students and families" (Interview April 20th, 2018).

Document analysis confirms that allocation to the military sector has risen significantly while spending to education and other sectors have dwindled (Ministry of Finance and Economic Planning Budget Book, 2017). 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18 budget allocations for higher education and other sector shows very little or no variations in the funding trend.

Teachers' salaries make up the largest share of college budget. But yet this category of professionals still receive very low salaries. This has made teaching position unattractive. Statistic has shown most experience lectures living teaching for better salaries in the NGO world or work abroad (University of Juba Statistical outlook, 2018). The delays in the payment of salaries for up to six or seven has made teaching less attractive and sent lecturers in search of greener pastures. This has left teaching assistance in charge of the teaching program. Adm. # 4 said "recruitment in most faculties have dropped since 201/17 and 2017/18. The framework to fast -track staff development to strengthen quality and efficiency has equally slackened" (Interview April 7th, 2018). Stud #8 observed that students from upper-income groups are increasingly choosing access to private universities over public universities (Interview April 25th, 2018).

Data in Table 31 also demonstrate that non-salary expenditures are very important to promote quality and efficiency in teaching and learning. The slow disbursement of the recurrent budget has forced many administrators to frequently borrow from entrepreneurs to support the daily running of the institutions. "We (Administrators) borrow everything starting from fuel, sanitation material to scholastic material from business proprietors. Some of them have stopped providing such loans to our institutions (public universities) because we do not pay promptly" said Adm. # 3 (Interview April 5th, 2018). This has made improving services to students' access a difficult task.

Data in Table 31 highlight that lack of digital libraries in most of the colleges and faculties has shifted cost to students and/or their parents. Students in a group discussion in Univ. #A reported that learning materials accounted to 40% of their semester expenditures (Interview May 15th, 2018). This emanates largely either directly through photocopying of recommended learning material or buying any selected literature useful to the learners. Further researcher is still required to establish thus affects students' dropout or how it deters students' access and academic participation.

Corruption in the implementation of programme has continued to drain resources from the core mission of higher education including students' academic participation. Although the budget is usually approved through a complex layer of transparent exercise, parliamentary committees with little or no expertise in accounts and finance may be unable to detect fraud and deviations in the budget approval process at the strategic level. This raises capacity issues at the strategic level to identify corrupt practices in the budget making processes.

Corruption also exists at the operational level. Procurement of teaching and teaching material is also closely associated with practices such as bribery, overpricing, unaccounted for spending and undelivered goods. NCHE # 1 explains that high volume of money is involved in contract procurement. There is a huge backlog of unaudited accounts since 2013 (Interview, April 25th, 2018). NCHE # 5 also stated that the Ministry of Higher Education has a giant backlog of admission despite budget allocations and students' contribution to manage the process (Interview April 15th, 2018). Both members of NCHE agreed the diversion of admission process funding is chronic and undermines the fact that admission process is both a national security matter and students' participation issue, respectively.

Data in Table 31 indicate that inefficiency in public spending on education affected students' access and academic participation. Efficiency is related to how resources are better plan and implemented. Adm. #3 poor timing of state appropriation have continue to hinder effective and efficient implementation of public resources. Stud # 12 indicated that little support from the government in terms of financial support to students from poor background has continued to force some students to repeat a grade or fall out altogether. (Interview April 12th, 2018). Efficiency in education has a potential not only to save funds but also to ensure students' progress.

Data in Table 31 also point that allocation of resources is not an end-in-itself. But allocating resources in an equitable manner is critical for students' inclusion and academic growth. This implies targeting the marginalized groups through funding formulas. Introducing cost-sharing has a long term effect on widening participation and narrowing the gaps between low-income and upper-income groups.

Nevertheless, the current pro-poor strategies have continued to distribute funding on equal basis for all enrolled students. Stud #4 said, "The government regulated fees and lunch voucher system but has failed to recognize the difference between those who can afford and those who cannot afford" (Interview April 17th, 2018). The lack of targeted funding has disadvantaged the most vulnerable students and favored students from the affluent nations' access and academic participation.

Findings in Table 31 also pointed that emphasis on humanitarian support by the international development organization has also denied public universities of financial resources to mitigate challenges to access and academic progress. “There has been a growing expectation that donor communities will increase its support and align its objectives with SDG Target 4.3: make quality higher education accessible, affordable and equitable to all. But this still appears far from near”, said NCHE #6 (Interview April 21st, 2018).

4.8 Strategies to Improve Students’ Access and Attainment

This section presents strategies as suggested by different categories of participants.

4.8.1 Strategies to overcome net cost barriers.

The participants proposed the following strategies to improve policies and practice on the rising net cost in SSPU as presented in Table 32.

Table 32

Strategies on improve affordable access and academic participants

Blockades to Access	**Strategies to Improve Policy & Practice**
The rising cost of transport	Outsource transport services (46%)
The rising cost of boarding	Fast-track construction of modern campuses (40%)
The rising cost of food	Increase the numbers of meal per day (13%)

Source: Field Research, 2018

Data in Table 32 show that 46% of the respondents suggested that public universities outsource transport service, create a bus stop within campus and where possible enter into partnership with private sector to lower cost. Focus group discussion in Univ. # A describes the benefit of such partnership:

> Public universities should outsource transport services and negotiate a bus station on campus. Administration could negotiate with services providers the terms of services

> and pricing. This could increase efficiency and make commuting less appalling for all by minimizing the cost and less traffic delays (Group Interview May 15th, 2018)

In addition, 40% of the respondents suggested that government constructs modern campuses on bilateral loans. There was a consensus among all respondents that lack of infrastructure in SSPU was urgent needed to improve on boarding, teaching and learning environment. Research has shown that location has influence on cost of attendance in term of actual travel time, social time, study time and travel mode (Danielle et al, 2016; Wu, 2014; Falch et al, 2013). Therefore dealing with transport is critical in the management of cost of attendance.

Due to lack of amenities, off-campus students either rent individually or in 'colonies'. Those who rent in the central business district complained of high rent while those who rent in the suburbs grumbled about the cost of transport, water and security compared to those who live in the city center. Focus group discussion in Univ. # B observed that in order to attract access, retention and success, government need to first track to establishment of world-class modern campuses through direct investment or bilateral loans (Group Interview May 30th, 2018).

Data in Table 32 show that 13% of the respondents suggested that government increase the numbers of meals per day. Stud # 3 said "One meal per day provided by government was merely good for survival. Three meals a day is ideal for a healthy digestion and proper assimilation of nutrients for young adults" (Interview April 15th, 2018). From the researcher's observation, the fact that the cost of living is significantly rising and social network support limited such concerns are genuine.

4.8.2 Strategies to Improve Equity in Access and Attainment.

Based on challenges identified in 4.7.2, participants were asked to suggest strategies to improve equity in SSPU as presented in Table 33.

Table 33

Strategies on how to improve equity in access to SSPU

Blockades on Equity-in-access	Strategies to Improve Policy and Practice	
Family socio-economic circumstances	Establish a financial aid scheme	(40%)
Large family structure	Return to free higher education	(32%)
Parental level of education	Establish career professional services	(28%)

Source: Field Research, 2018

From Table 33, 40% of the respondents want government to establish financial-aid scheme to cushion students from low income families. Par #4 stated that the rising cost of education can put undue pressure on out-of-state students from low-income families and their parents. But if families that qualify were cushioned through grants or loans, equity-in access could be grantee (Interview May 24th, 2018).

In South Sudan the prevailing economic conditions have stratified families into income groups. Families who earn less than less than SSP 3,000 per month were considered low-income before 2013 but with inflation those who earn below SSP 10,000 after 2013 cannot afford to put food on the table leave alone sending their children to college. This has increased the number of low-income group ranging from SSP 3,000 to 10,000.

Stud # 7 shared; “I had chosen a low cost programme but I am unable to adequately cover the cost of food, room, transport, medical care and reading material. I wish the government could provide us with subsidies to support our academic dream. I have tried three times to quit but my colleagues encourage me to continue” (Interview April 23rd, 2018).

Research has shown inequality traps reproduces intergenerational inequalities and hinder social and economic development (Salmi et al, 2014). To address this, respondents suggested that the government offers financial aid and social support to cushion students from low income families. According to the focus group in Univ. # A, there seems to be no consensus on what type of financial aid may be suitable for SSPU. The majority of the respondents seem to prefer blanket subsidies rather than loan scheme.

Those who oppose students' loan scheme believe that the country still have weak financial institutions to manage such resources. This makes sustaining the loan programme unsustainable. They believe that state grants were most appropriate because they were non-refundable mode of funding HLIs. Until the national admission system include parental income profile in students data form, it will still be difficult to establish the size of the burden to be addressed.

It is also evident that 32% of the students identified large family structures as the second leading obstacle to equity-in-access in SSPU. To create equality of opportunities and outcome for this category, they proposed a return to "free" higher education, which means a system where government exclusively funds access for all irrespective of family income. The underlying assumption in the phrase a 'return to free higher education' is the feeling that the country has resources. The study recommends that there is need to train public servants on integrity and repurposing higher education as a priority in skill development.

The concept of "free" higher education is based on the assumption that more people would be able to attain employable credentials and take the good-paying jobs that often go unfilled. This could result in billions of additional dollars circulating throughout the economy. It also means that the government would take in a lot of extra tax revenues, which could go a long way towards paying for free public colleges. The debate on right-based and cost-sharing is an emotive discourse.

It is just not only an economic one but also a moral and philosophical decision. Clothing historical injustice requires that all citizens regardless of social standing have equal opportunity to reach their potential in order to promote intergeneration mobility. In fragile, conflict and violent context morality and social mobility often erode faster for the poor and middle class as well as the collective intelligence and goodwill of the nation as citizens become even more divided along tribal lines. This explains why protagonists of ‘free” higher education believe it must be regarded as a right than a choice.

Findings in Table 33 show that 23% of students explained that their parents had no formal education. This is also reinforced by document analysis (National Bureau of Standard Monitoring Survey, 2012). Students whose parents have never been to college were experiencing particular difficulties in seeking access or continuing due lack of family support. While most of them have depended on the help of teachers and their peers, there is need to develop an institutional approach to rescue them. This includes; robust outreach to communities and schools, use of social and digital media and establishment of professional career guidance institutions.

The other side of parents’ inability to read and write in any language implies that they cannot provide career guidance to their children. When the family size is large and parent cannot provide professional counseling, students’ access is negatively affected as poverty creeps in to reinforce illiteracy. “We do neither have a radio/TV nor afford to buy newspapers. As a result, we do not receive first-hand any information students recruitment” said Stud #2 (Interview April 13th, 2018).

To address the shortage on information, focus group discussion in Univ. B proposed that: (a) the Ministry of Higher Education should strengthen admission department by retaining itself on customer care; (b) government should propose laws that allow the establishment of professional agencies or encourage individuals with such skills to close the gaps in parental lack of formal education, and; (c) universities should use both traditional and digital approaches to sell themselves and their programme. Research has also shown that tailored information on financial assistance would help students' and parents to correct misconceptions about affordability (Paulsen et al, 2016).

From observation, there is need for the admission systems to improve equity in access through passing adequate information to citizens. Higher education best practices have shown that universities which develop effective outreach programme to the communities and schools, train its admission cadres, exploit social/digital media and encourage secondary school tours to university campuses. Such activities effectively market universities' programme. There is therefore a need for South Sudan to develop such programme to improve equity in access.

4.8.3 Strategies to Improve Tuition Mobilization.

Based on challenges identified in 4.7.3, Table 34 summarizes strategies to improve policies and implementation framework on tuition regulation in SSPU;

Table 34

Strategies to improve cost-sharing model in SSPU

Blockades on Affordable Access	Strategies to Improve Policy & Practice
Places excessive burden on parents	Mobilize funding from all stakeholders (39%)
Growing privatization	Counter privatization tendencies (32%)
Delays in disbursement	Increase efficiency in subsidies disbursement (29%)

Source: Field Research, 2018

Data in Table 34 indicate that 39% of the respondents observed that the funding mobilization techniques were weak and placed excessive burden on parents rather than all stakeholders. Research by Johnstone stated that there are five sources of funding in cost-sharing model. This includes: government, business individuals or organizations, bilateral/multilateral donors, students and their parents (Johnstone, 2015). Each stakeholder has a role to support HLIs. The government duty is put in place policies that support each stakeholder to play its effective role as this will lessen the burden on students and their parents.

It is also clear that indicates that 32% of the participants feared there was growing privatization tendency in SSPU (Table, 34). Those who held this view called for a return to 'free' higher education, a system where the government exclusively funds all aspects of higher education. They maintained that there was no moral justification for the resumption of civil war 2013 as it turned out to be a smokescreen to perpetuate ethno-centric nationalism. They argued that the country's resource should be used to ensure peace through promoting unity, development to change the life of the people and intergeneration mobility. They warned that any increase in the cost of tuition and other expenses risk locking out the low-income families, female, large families, first-generation and rural based students. There was need to reform the current system of financing higher education because it does not speak to the situation of return, rehabilitation and reintegration after half a century of civil war.

Data in table 34 indicate that 20% of the students named the growing privatization tendencies in SSPU. Universities have increased user charges annually under the disguise of inflation adjustment. This is an innovated approach to circumvent the effect of low tuition fees. Students have noticed that if nothing was done about this, user charges will overtake tuition fees. This may create barricade to students from low-income families. To address this issue, the participants suggested that the National Council for Higher Education (NCHE), which is the policy making body, should review cost-sharing policy regularly to address emerging issues.

Table 33 also shows that 29% of the students cited the need to increase efficiency in the disbursement of state appropriation. Research has shown that tuition fees increases the total revenue of higher education if state subsidies and financial aid are forthcoming (Orr, 2015). The introduction of tuition fees is not a panacea to higher education funding issues. Tuition fees which is not effectively synchronized with state subsidies and financial aid is likely to fail.

There is need to balance tuition with state appropriation and financial aid to ensure that SSPU is accessible, affordable and equitable to all. It should be understood that government political will is required here. Research by Marcucci (2013) explains that variation in states response depends on the political, economic, historical and social disposition of a country. The 2015 OECD report also illustrate how different members of the Bologna Agreement differ in their approach to fiancé higher education.

4.8.4 Strategies to improve Lunch Voucher Programme.

Based on challenge on lunch voucher, the respondents argued as presented in Table 35.

Table 35

Policy and practical strategies to improve the lunch voucher programme

Barriers to Lunch Programme	**Strategies to Improve Policy & Practice**
Ambitious target of the programme	Improve policy and implementation guideline (36%)
Food importation	Improve nutrition and health (32%)
Ineffective coordination	Improve teamwork (31%)

Source: Field Report 2018

Data in Table 35 articulate that 36% of the students noted that lunch voucher programme was ambitious and 32% opined that the importation of food itself had raised the cost of the programme. Further, 31% believed that the programme was neither managed nor effectively coordinated

Participants suggested that based on the above findings, there is need to: (a) strengthen multi-sectoral coordination meeting of actors; (b) develop a national school feeding policy and implementation framework; (c) involve communities and donor organization; (d) strengthen monitoring and evaluation; (e) build the capacity of food managers through pre-training or in-service training; (f) connect food programme with the local economy and create national standards for food management, procurement and logistics.

The rise in the cost of food in local market indicates the urgency to strengthen the link between local food production and local economy. Some parts of South Sudan are very fertile and agricultural colleges should be located in production areas. This could enhance food security and provide hands on approach to training future cadres. Lowering the cost of food could raise the number of meals from one to three meals per day.

CTR #1 described what is usually considered in planning unit cost for a lunch voucher programme;

> The cost of lunch per student depends on a number of factors which are always not straightforward. They include: cost of transport, quality of food, purchased location, storage and numbers of beneficiaries per annum. Sometimes logistics, security, and climatic conditions also impact on the cost of the programme expenditures. All these must be carefully plan and budgeted (Interview June 5th, 2018).

Most of the participants explained that there were some weaknesses in the coordination of the programme. Lunch voucher programme was clearly managed as an emergency rather than a development strategy. The absence of coordination meeting at the strategic and operational level indicated that the programme was on an auto-pilot mode and revealed a serious lack of effective leadership. Issues of nutritional guidelines were considered as superfluous. So it was difficult to gauge the amount of nutrients content. There is need to strengthen policy and legal framework

4.8.5 Improving Resilience in Education in Conflict Context.

To improve resilience in situations where teaching and learning occurred in political volatile environment, the participants responded as presented in Table 36.

Table 36

Strategies to improving resilience in education in a conflict context

Blockades on Access	**Strategies to Improve Policy & Practice**
Conflict hinders access for all, particularly for female	Affirmative action for women and girl (39%)
Growing privatization due to weak state structures	Strengthen Public Institutions to counter privatization tendencies (32%)
School without learning	Every effort be made to improve quality (29%)

Source: Field Research, 2018

Thirty nine percent of the students' associated political conflict with decreased in access and suggested affirmative action. Evident from literature supports this assertion that increase in conflict is associated with decrease in access for all, particularly the empowerment of women and girls (Maya, 2017). South Sudan has transitioned from one conflict to another (Mamdani, 2016). While war still rages, the people of South Sudan have refused to let worries about insecurity deter them from education. "Education cannot wait because it is key driver to political, social, economic stability of the new country" said Par #3 (Interview June 18th, 2018).

From observation and document analysis it is clear that enrollment has increased defying political crisis and economic hardship that came along with it. However, the participation of women in higher education both at the strategic level and in the students' growth is still pathetic. This indicates that conflict and its major displacement including cultural bias tend to affect women more than male. There is need for affirmative action to make higher education more inclusive.

Data in Table 36 show that 32% of the respondents believed political conflict weakens educations institutions and thus affect access and academic participation. Many attempts to bring peace have been elusive. The people of South Sudan hope that the peace agreement signed between President Kiir and rebel leader Riek Machar in August 2015 will hold. The Khartoum agreement which lays out comprehensive political, economic, social and humanitarian road-map to benchmark peace may take a while to be realized.

Education has been a major victim of the current and previous civil wars. As a result, weak institutions that emerged due to abuse of the rule of law have given way to corrupt practices where decision of the government council is usurped by individual and limited funding diverted for personal gain. To improve policies and implementation, the study suggests that the National Council for Higher Education meetings should be revived to counter the emerging privatization tendencies. Decrease in privatization of public universities may increase the chances for government regulation and effective use of public revenue.

Data in Table 36 explain that 29% of the respondents believed that while universities were resilient, students were schooling but learning. While resilience is what the students can do to enroll or remain enrolled until success is achieved, institutions also need to do their part. There is need to strengthen the quality of institution through adequate funding, capacity building and providing a favorable teaching and learning environment. Students exposed to conflict are likely to drop out and complain about value for their money in a cost-sharing regime. Par #1 said "schooling without learning is just a waste of time and valuable resources but also an injustice to the learners. Higher education must provide skills to fight illiteracy, poverty and sickness" (Interview June 6th, 2018).

4.8.6 Strategies for Fund Mobilization.

Based on the challenges related to funding, Table 37 outlines strategies on how to improve policies and implementation practice for fund mobilization in SSPU.

Table 37

Improve policies and practices for fund mobilization

Inadequate Funding	**Strategies to Improve Policy & Practice**
Poor mobilization of funding	Mobilize funding from public and private sector (35%)
Lack of international assistance	Solicit international assistance (31%)
Money lost through corruption	Adherence to Appropriation Act 2018 (23%)
Inefficiency in spending	Reprioritize higher education (11%)

Source: Field Research, 2018

Based on data in Table 37, 35% of the respondents' said that public universities were engines of human resource development but were an underfunded priority. This shows that the tuition fees formula was introduced in haste without a feasibility study. Since 2013, government allocation to public universities has dramatically reduced as enrollment rose significantly despite the political challenges. The strategies on mobilization of other sources of funding have been particularly weak and not proper for a cost-sharing regime.

Since tuition fees and other administrative charges, accounts only for 8% of the recurrent cost, there was need revisit the funding formula in such a way that all stakeholders make their maiden contributions. Research has shown that tuition fees can increase the total revenue of higher education only where govern subsidies are timely availed and financial aid is availed to the students (Orr, 2015; Tan, 2014). Where public subsidies have diminished significantly private sector grants and loans could be used to offset the deficit. In South Sudan all these financial institutions need to be established.

Data in Table 37 point to lack of international assistance to higher education as one of the major significant funding gaps. South Sudan before, during and after independence has a heavy presence of international agencies working in almost all fields. While the footprints of these agencies can be traced to general education, there are less or no programme in higher education. This implies that higher education can wait as humanitarian, bilateral and multi-lateral agencies complete their respective programme at the basic level.

Development assistance has played a significant role in the development of higher education around despite the fact that it comes with some strings attached. Educational leaders should be able to disentangle such from the core mission of higher education to obtain a good deal for the country. For South Sudan to resource from the region or international assistants, it need to place on the negotiating table qualified personnel.

The assumption that “we can cross a river without bridge” may have worked in the past. But now there is need to put in place the right personnel that can negotiate with international aid agencies to enable them increase their input on higher education. There is also need for international agencies to understand the “1960s assumption that higher education is a luxury” is not applicable today. Higher education has become a necessity. In order to reduce cost on humanitarian operation, there is need to increase cost on higher education to achieve all SDGs.

Again, data in Table 37 indicate that government and all stakeholders should prioritized education. The focus on the defense sector suggests that other sectors do not matter. The assumption that awarding war-loads with Ministerial jobs have only served to land public service institutions into deeper miseries and emboldened the pro-war camps to continue making war a business.

Reprioritizing education requires a serious review of the quality of service it offers. The standard of an education system is as good as the quality of its teachers and infrastructures. Teachers’ salaries make up the largest share of college budget and delays in the payment of teachers' salary has collateral damage on access and students' academic performance. Pay too must be fair to make it attractive. Fast track staff development is critical to strengthen quality and efficiency.

To make public universities attractive to potential students also require that HLIs rebrand their institutions and programmes. Public universities cannot afford to compete in global market if students are not aware of their location and programme. With the emergence of the private universities since independence, there is need for SSPU to rebrand themselves as there is now no monopoly of higher education service.

Data in Table 35 indicated that there was agreement all non-defense sectors were under funded. This has further weakened the young and weak structure. This bureaucratic challenge has given way for corruption both at the strategic and operational level. The respondents cited the frequent trips made by senior management for missions designed for technical staffs as serious hindrance to strengthen institutional capacities although it provides allowance for the beneficiaries.

There is need to enforce the 2018 Appropriation Act as high volume of money is involved in false contract procurement and huge backlog of students are not admitted. Government should ensure that accounts are audited. There was no auditing of public accounts done since 2013. There is also need to eliminate "ghost-worker" from the pay rolls. While such loss of public funds may have benefited some individual, there is need to ensure that those who took undue advantage of public money should be made to pay. Problems (ghost workers) can be solved through verification of the pay roll. Hence closing the gaps in procurement is critical to widening participation and narrowing the gaps between the upper-income and lower-income groups.

Corruption in the implementation of programme has continued to drain resources from the core mission of higher education including students' academic participation. There is need to put in place grantees both at the strategic and operational level to ensure great accountability and transparency.

In educational leadership studies, institutional transparency and accountability go hand-in-hand and should be held as statutory obligations. Colleges are accountable for student achievements and general conduct. Teachers are held accountable for learning. The students are accountable for one another and their personal behavior. The administrators are accountable for the use of funds. In order to improve transparency in SSPU, educational leaders need to: align funding to organizational goals; ensure that decision processes are made in participatory way; hire right personnel and provide continuous training to detect graft; encourage face-to-face communication; treat all employees fairly, and; encourage transparency in donor funding reporting.

Achieving education for all requires that more domestic resources to help the poor families disable persons, geographical students and first-generation students. There is no issue as salient and controversial as financing higher education. Yet there is a strong call by all participants for the return to "free" higher education to grantee this call.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary, conclusion and recommendations of the study.

5.2 Summary

The purpose of the study was to establish how cost-sharing affects students' access and academic participation in SSPU. Six research questions were formulated out of which four hypotheses were drawn. The study was guided by three theoretical frameworks; human capital theory, financial nexus theory of decision-making and multi-context framework for college decision-making. This was necessary because one theory was not enough to describe influence of cost on students' access and academic participation. Human capital theory was preferred because it provided justification for investment in higher education. Financial nexus theory of decision making was critical to show that students and/or their parents differ by income. The multi-context framework underscored that although income is important, it was not the sole factor affecting students' matriculation and attainment.

Convergent parallel mixed method research design was used to collect both quantitative and qualitative data. Each strand allowed the researcher to collect both quantitative and qualitative data and analyzed them separately, then compared and contrasted the results to check whether the findings confirmed or disconfirmed each other which enhanced the interpretation of the results. The qualitative strand adopted phenomenology approach while quantitative strand used cross-sectional survey to capture the views of the population of interest at a particularly moment with no claims to follow them further. Both strands were very instrumental in the triangulation of the findings.

Both probability and non-probability sampling techniques were used to select the sample for the study. This consisted of 378 students, six members of NCHE, four university administrators, four parents and two food contractors. Questionnaires, interview guides, focus group discussion guide, document analysis guides and observation guide were used to collect data from the participants. Questionnaires were administered to students and while interview guide was used to collect information through members of NCHE, administrators. parents and food contractors.

Qualitative data were collected and analysed simultaneously by putting them into codes and themes then reporting them either through paraphrasing or verbatim. Quantitative data was analysed through the use of SSPS version 23. Descriptive statistics such as frequency and percentage were used to summarise quantitative data. Inferential statistics: one sample T-test was used to find whether there was any significant difference in mean in the proportion of respondents who held opposing views of the issues of interest. The results were presented in frequency tables, mean, T- test table and direct quotes as appropriate.

The main findings in line with the research questions were: On the influence of net cost on students' access and attend South Sudan Public Universities, the study found that although the cost of instruction (tuition fees) appeared stable over the last seven years, the costs of maintenance was increasing rising and varied by location between campuses and colleges. The study also found that students' net cost was extremely high for out-of-state students from low-income families compared to in-state students from low-income groups. The cost of food, boarding, transport, healthcare and scholastic materials put together was affected by the run-away inflation and political instability, which in turn had raised the cost living in market for all citizens.

Out-of-state students from low-income families, who did not have any social network in the location of their studies, were adversely affected by the cost of food, boarding, transport, healthcare, teaching and learning material. This is because the rise in the cost of fuel had affected the cost of all consumable goods offered in the market. This means that those who had not enrolled were deterred to make the decision to access and attend South Sudan public universities while those who enrolled considered the possibility of dropping out where no financial aid was forthcoming.

This finding shows that financial factor was important in students' decision to choose where and what to study at college or university. But it is by no means the single most important factor for students from fragile, conflict and violent countries. The proximity, accommodation, transport, food, reading material, health care, political and economic situation had repercussions on financial resource.

The second research question was on the influence of family socio-economic circumstance affects students' enrollment. The study found that despite government imposition of tuition capping and offer of free lunch vouchers for all enrolled students, students from low-income families were less likely to enroll in South Sudan public universities compared to those from upper-income families. Most parents had no formal education, earned less than SSP 3,000 (Less than $ 10 USA dollars per months) reducing them to low-income students.

Large family structure also had a bearing on the affordability of higher education in South Sudan. A typical South Sudanese household is still large, largely rural-based, and live in large households due to the enduring patriarchic customs. Large family structure has a direct link with ability to pay fees. A college education has become an important gateway to the middle-income class. But obtaining a university can be particularly challenging for students from low-income families. Hence, Students from less wealthy families are less likely to attend college in the first place, and those who do attend are less likely to graduate due to affordability issues. Therefore, introduction of tuition fees without any financial aid framework only served to lock-out out low-income and favored upper-income groups.

The implication of maintaining an elite campus raises philosophical, legal and policy questions for a country that has emerged from over half century struggle political marginalization and exclusion. Leaving out from the very start students from the low-income groups is simply wrong and a recipe for future conflict. There is a need for government to synchronize tuition fees, with state appropriation and financial aid. There is need to assess global, regional and national best practices on the role of all stakeholders in mobilizing cost-sharing resource to support higher education and as a strategy to narrow intergeneration gap.

The third question endeavored to get answers to students' perception on the influence of tuition capping on students' participation. The study established that students have a strong preference for government control tuition pricing compared to public universities set tuition fees because its pro-poor orientation and public good theory. The question of who regulates tuition fees caps was a big deal in this study because students and/or their parents assumed that universities would adjust fees severally under economic pressure to close the financial gaps.

Balancing between market orientation and philanthropic virtuousness can present huge challenges for educational leaders. Every country has adopted its unique approach based on its history, social, economic and political will. This indicates that tuition pricing is social and political and the trade-off between public good and private good or both is determined not merely by the social and economic but also by the history and political will of its leaders.

The debate on whether tuition setting be left to the market forces or be regulated by government has no straightforward answer. If universities were allowed to set their tuition caps, then they could adjust severally to maximize profit without regards for those who may not afford. If government controls tuition caps while reducing and delay disbursement of state appropriation and without any provision to support need-based students, then this may create barrier to access for low-income groups and reduce the quality of institutional graduates.

Students' perceived that tuition capping has enhanced their participation and delays in state appropriation have forced SSPU to operate without strengthening its learning outcomes. This undermines quality of public universities making them less competitive in regional and global market despite have magnificent history within the country. On students' perception on the influence of lunch vouchers on students' participation, the study found that although students have a positive perception that on-site meals have alleviated short-term hunger, they are concerned that the programme is neither cost-effective nor sustainable in its current form. Lunch voucher programme has improved students' participation by reducing net cost and widening attendance. Targeting an expanded population without any substantial increase in funding may indicate lack of planning.

There is a consensus that due to poor coordination and food importation, the programme was neither cost-effective nor sustainable. The study found food imported from neighboring countries was more expensive than those locally grown. Some parts of South Sudan were more fertile for food production and home-grown was culturally appropriate, low cost and strengthen local economy. Moreover, this could also raise the number of meals from one to three meals per day.

The study also found there was food insecurity in South Sudan. The lack of humanitarian institutions foot-prints was conspicuously in a country depended largely on humanitarian agencies. There was still much expected from donors in this regards. Educational planners are, however, cautioned to ensure that such involvement does lead them to aid dependency trap. Another important source of funding that has never been well explored is the diaspora path. Diaspora support has lifted families from hardship and the fund should be opened to support to human capital fund. Money transfer by South Sudanese working or migrated abroad has changed lives and could do the same to higher education food programme.

Food security still remains one of the most pressing global health and educational issues of our time. Students who experience food insecurity risk staying out of school. Similarly offering food without a clear implementation policy neither addresses the issue of food insecurity nor learners educational needs. The lunch voucher programme has helped over 20,000 students. But untargeted intervention could be a waste of public resource. However, there was no evidence to show that food provision increased retention and completion rate. This is an area which requires further research.

To improve lunch voucher programme, suggestions floated were the need to: (a) strengthen multi-sectoral coordination meeting of actors; (b) develop a national school feeding policy and implementation framework; (c) involvement of communities and donor organization; (d) strengthen monitoring and evaluation; (e) build the capacity of food managers through pre-training or in-service training; (f) connect food programme with the local economic and create national standards for food management, procurement and logistics.

The study established a number of challenges facing students' participation in South Sudan Public Universities for example: the resumption of the post-independent civil, demographic expansion and recessions due to the fall in the price of oil in the world market significantly contributed the shift of some burdens of funding public universities exclusively based on government through tax-payers to students and/or their parents. Another challenge is the weak support of the private sector (business or donor individuals and organization) has transferred the largest burden from government to students and/or their parents.

In addition, lack of a safe and secure learning environment has led to relocation of some public universities from their original location to "safer" zones. This has compounded the pre-existing issues of inadequate infrastructure and amenities. Public allocations to defense sector have significantly risen while decreased for higher education and other sectors. Civil servants including teachers have gone without salaries for over six month. This has significant influence on their teaching role. Lack of financial aid scheme to cushion needy students was a financial blow to students from out-of-state students from low-income echelon.

The pro-poor programme such as the regulation of tuition caps and lunch voucher programme bogged down by poor leadership and financial austerity. Although students and/or their parents preferred a return to "free" higher education policy, government regulation of tuition fees is meeting limited success due to lack of financial aid either from public or private financiers. Out-of-state students from low-income families with no social support network in locations of admission were facing the harsh brand of access and academic participation.

Sometimes, lack of access is compounded by lack of effective and efficient recruitment strategies. Parents with low level of education were not able to provide counseling for their children seeking access. There were neither established professional career guidance agencies nor enough recruitment staff to run an effective outreach programme. There are also no public university websites to provide information on the available opportunities or where to receive financial assistance.

Hence, it can be summed up that the financial challenges facing students' access and attainment in South Sudan's public universities include: inadequate physical infrastructures; protracted civil war making the environment unsafe for teaching and learning; decline in public spending and increase dependent on tuition and lack of financial aid to support need-based students. Others include low diffusion of information, communication technology and the rise in the cost of living as a result of the economic inflation; weak advocacy and lobbying donor support; unclear roles and responsibilities affecting supervision and excessive bureaucracies causing harborage in public funding for lunch programme.

Based on the challenges identified, the study suggested the following strategies to overcome barriers to access and students' academic participation. In order to mitigate the effect of civil conflict on the cost of instruction and cost of maintenance, there is a need to fast-track peace process at all levels. South Sudan civil conflict is a multi-level conflict. The study proposed that peace be focused from two fronts. First, peace at the grassroots is as important as peace at the national level. Peace through dialogue could settle the mistrust among the ruling elite, which has polarized South Sudanese communities along ethnic lines.

Second, peace in South Sudan is as good as peace in the region or the world. A weak South Sudan is not good for global peace. There is need to strengthen diplomacy practices that recognize that the fragility, conflict and violent context of South Sudan should not become a profitable business for some regional and global players. The people of South Sudan are tired of being a market for guns and ammunition. Political leaders must now turn their attention to the war on poverty and illiteracy and search for markets for our natural resources.

The study suggests that in order to improve the teaching and learning environment, government aggressively embarks on the construction of modern world class campuses. Such projects will not only widen access and academic participation within South Sudan but also make South Sudan an educational regional hub. This in turn could reduce cost associated with students mobility and could earn for the country some hard currency.

The study suggests that in order to widen participation and narrow the gaps between income groups government the increases investment on higher education and establish financial support schemes to cushion need based students. This requires re-purposing government priorities, where education is not merely seen as an agent for economic, political, social and technical development but also a conduit for peacefully coexistence and a strategy to outwit the terrorism lashed on the citizens by “unknown” gunmen.

Similarly, private sector (business and donor) need to upscale their contribution to promote access and students’ academic participation. Private grants or loans have for ages been an alternative financing model for higher education. But in South Sudan private individuals or firms have supported directly basic education during the conflict but denied higher education the same benefit under the same circumstance. It is also important to recognize the support of national in the war against poverty and illiteracy.

The study also suggests strategies on how to improve the legal, policy and philosophical implementation framework of the pro-poor initiatives. The current red tape, blanket coverage lunch voucher programme could be eased by injecting additional financial to make the programme cost effective and sustainable. To bring down the cost of food staff, campuses meal programme should focus on supporting local food production. This approach can raise the numbers of meals from one to three per day.

The study observed that there was a strong need to establish professional career guidance agencies to enhance the recruitment staffs of students. Research has shown found that parents education level have impact on students' choice of what and where to study. Such institution is expected to provide guidance and information on the available opportunities and financial assistance. Universities need to improve the way they market themselves and programme. Both traditional approach such as outreach and digital approach such as websites and smart business can increase students' chances to enroll. Public universities and higher education system should also retrain their admission staff and engage provide professional services as a way to mitigate the gaps parental capacity to guide.

5.3 Conclusions

The purpose of the study was to establish how cost-sharing affects students' access and academic participation in SSPU. Based on the findings there is a decline in state appropriation, rising social demand and protracted civil conflict which have significantly contributed to the shift of paradigm. The enrolment has increased despite the introduction of tuition fees in SSPU and the rising cost of living. But this increase in social demand favours elite families. This implies that enrollment in SSPU is skewed in favors of children from privileged families, which means a substantial proportion of students from low-income families do not participate in SSPU due to cost barrier issues.

The pro-poor programmes introduced designed to improve growth and inclusive access achieved very little due to inadequate physical infrastructures; protracted civil war making the environment unsafe for teaching and learning; decline in public spending and increased dependent on tuition and lack of financial aid to support need-based students have it access and participation hard for students from low income families. Thus, there is a gap in accessibility and participation.

The study also concludes that low diffusion of information, communication technology and the rise in the cost of living as a result of the economic inflation; weak advocacy and lobbying donor support; unclear roles and responsibilities affecting supervision and excessive bureaucracies cause harborage in public funding for lunch programme. The lunch voucher although in place partially ensures access and participation. Finally, the cost difference between in-state and out-of-state tuition at public colleges and universities is quite significant. However, there are different programme that students can access if they were helped to choose wisely.

5.4 Recommendations of the Study

Based on the summary and conclusions drawn from the research questions, the study makes the following recommendations:

i The government should construct modern world class campus to widen access and make South Sudan a new regional educational hub.

ii The government should increase investment in South Sudan public universities and establish financial aid scheme to support students' access and academic participation

iii The National Council for Higher Education should ensure tuition regulation efficient and effective subsides and financial support to make South Sudan public universities more inclusive.

iv The National Council for Higher Education should ensure that universal target of beneficiaries of the lunch voucher programme is matched with substantial budget allocation to make the programme cost-effective and sustainable.

v Universities should market their institutions and programme through the appropriate media to increase visibility and support inclusive growth.

vi Universities should create bursaries and work-study opportunities to widen support and narrow gaps between income groups.

5.5 Suggestions for Further Research

The findings from this study have implications that could be the subject for further research. This includes:

i A holistic view of the push and pull factors influencing students' access and academic participation in South Sudan public universities.

ii Financial and non-financial factors contributing to growth and inclusion in South Sudan higher education system.

iii Longitudinal study on the effects of the rising net cost on students' retention and completion rates in South Sudan public universities.

iv The philosophical basis of the implementation of public-private partnership of the lunch voucher programme.

v Determinants of female students access into South Sudan public universities.

vi Contribution of the private own higher education to students' access in South Sudan

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APPENDICES

APPENDIX A: LETTER FROM THE CATHOLIC UNIVERSITY

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

Faculty of Education

Department of Postgraduate Studies in Education

CUEA/DVC-ACAD/FOE/PGSE/NACOSTI/003/March 2018

21st March, 2018

The Undersecretary for Higher Education,
Ministry of Higher Education, Science & Technology
GOVERMENT OF SOUTH SUDAN

RE: SISTO OTIM OYWAK – REG. NO. 1026747

I am writing to introduce to you, **Sisto Otim** who is a final year PhD student at The Catholic University of Eastern Africa, Nairobi – Kenya, and to request you to assist him to accomplish his Academic Research requirements.

Otim's PhD Degree in Education specialization is Educational Planning and Administration. He has completed all course work requirements for this programme. However, every student in the programme is required to conduct research and write a report/dissertation submitted during the final years of studies.

Accordingly, Otim's research topic has been approved. He will conduct research on the following topic:

"Influence of Cost-sharing Policy on Students' Access and Participation in South Sudan Public Universities".

Thanking you in advance for any assistance you give to Otim.

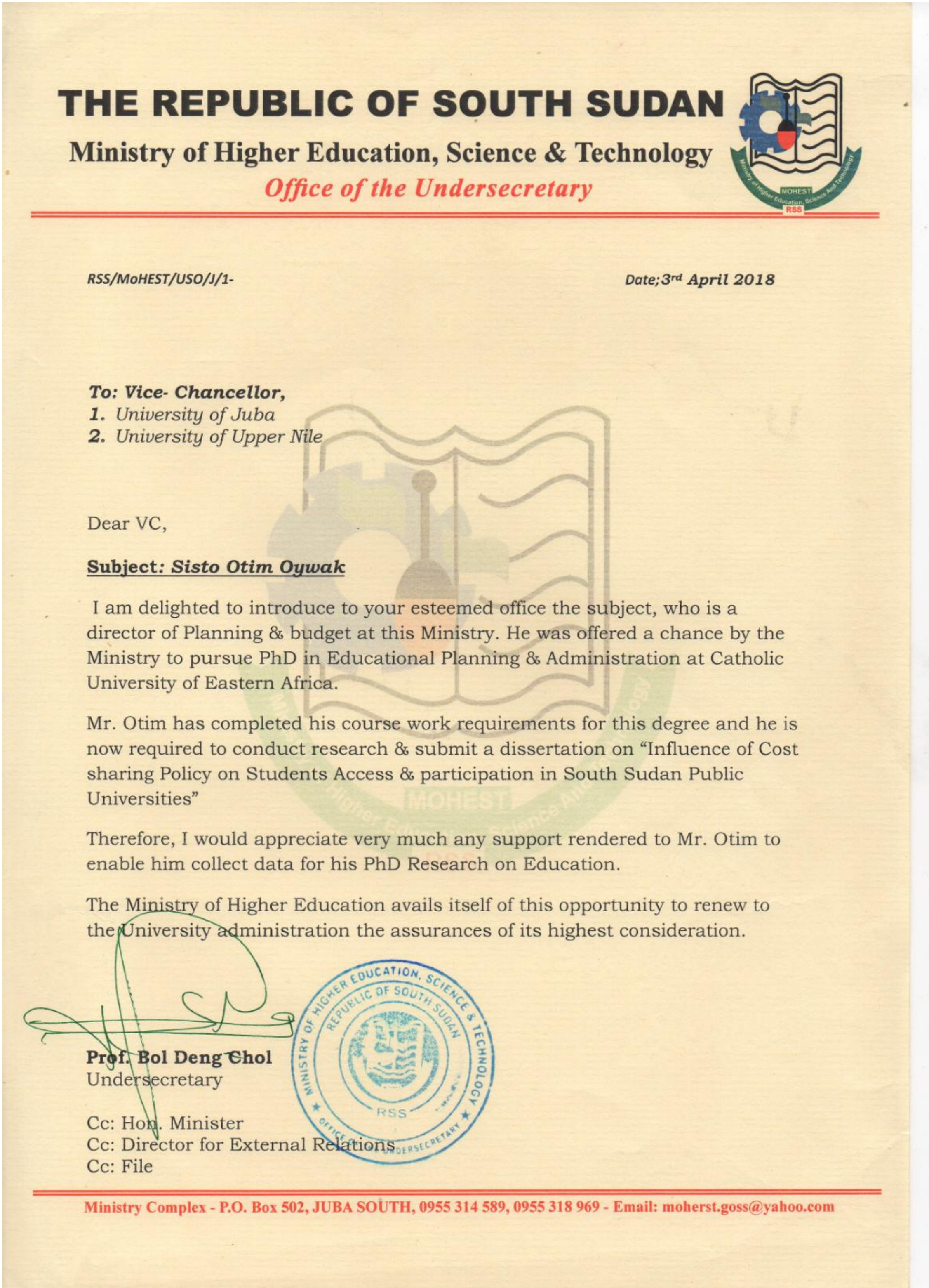
Sincerely,

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA
DEPARTMENT OF POSTGRADUATE STUDIES IN EDUCATION
21 MAR 2018
P. O. Box 62157 - 00200, NAIROBI.

Dr. Marcella Momanyi
Head of Department,
Postgraduate Studies in Education

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA) P.O. BOX 62157 00200 Nairobi – KENYA
Tel: 020-2525811-5, 8890023-4, Fax: 8891084, Email: pgse@cuea.edu, Website: www.cuea.edu
Founded in 1984 by AMECEA (Association of the Member Episcopal Conference in Eastern Africa)

APPENDIX B: LETTER FROM THE MINISTRY OF HIGHER EDUCATION



THE REPUBLIC OF SOUTH SUDAN

Ministry of Higher Education, Science & Technology

Office of the Undersecretary

RSS/MoHEST/USO/J/1-

Date;3rd April 2018

To: Vice- Chancellor,

1. *University of Juba*
2. *University of Upper Nile*

Dear VC,

Subject*: Sisto Otim Oywak*

I am delighted to introduce to your esteemed office the subject, who is a director of Planning & budget at this Ministry. He was offered a chance by the Ministry to pursue PhD in Educational Planning & Administration at Catholic University of Eastern Africa.

Mr. Otim has completed his course work requirements for this degree and he is now required to conduct research & submit a dissertation on "Influence of Cost sharing Policy on Students Access & participation in South Sudan Public Universities"

Therefore, I would appreciate very much any support rendered to Mr. Otim to enable him collect data for his PhD Research on Education.

The Ministry of Higher Education avails itself of this opportunity to renew to the University administration the assurances of its highest consideration.

Prof. Bol Deng Chol
Undersecretary

Cc: Hon. Minister
Cc: Director for External Relations
Cc: File

Ministry Complex - P.O. Box 502, JUBA SOUTH, 0955 314 589, 0955 318 969 - Email: moherst.goss@yahoo.com

APPENDIX C: CONSENT FORM

INFLUENCE OF COST-SHARING ON ACCESS AND STUDENTS' PARTICIPATION IN SOUTH SUDAN PUBLIC UNIVERSITIES

Principal Investigator: Sisto Otim Oywak PhD Student, the Catholic University of Eastern Africa (CUEA)

Faculty Advisor: Dr. Sr. Jacinta Adhiambo, Senior Lecturer, CUEA
Dr. Paschal Wambiya Senior Lecturer, Mwenge Catholic University College

Expectations
If you agree to be part of the research study, you will be asked to participate in 3 audio-taped interviews. The interviews will take approximately 60 minutes.

Benefits
Although you may not directly benefit from participating in this study, researchers, educational leaders, administrators, planners, lecturers and students will definitely will. It is expected to increase understanding on how to make quality higher education affordable, equitably and accessible for all in South Sudan, especially those from underrepresented groups.

Risks
There are no risks associated with this study because the data collection is completely anonymous and the topic is not sensitive.

Compensation
There will be no monetary compensation for participation. However, participants will be verbally thank for accepting to participate in this study

Storage and future use of data
To keep your information safe, the researchers will not attach your name to any data; a study number will be used instead as soon as you accept to participate.

Confidentiality
I plan to publish the results of this study, but will not include any information that would identify you. To keep your information safe, the audiotape of your interview will be placed in a locked file cabinet. The researcher(s) will enter study data on a computer that is password-protected.

To protect confidentiality, your real name will not be used in the written copy of the discussion. The researcher plans to keep this study data to use for future research about postsecondary funding for planners and administrators. There are some reasons why people other than the researchers may need to see information you provided as part of the study. This includes organizations responsible for making sure the research is done safely and properly, including the Catholic University of Eastern Africa.

Voluntary nature of the study
Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may also choose to not answer a question for any reason.

Contact information
If you have questions about this research, you may contact:
Sisto Otim Oywak sistootim@yahoo.com Tel: +254-703809600/+211-928620926
Dr. Sr. Jacinta M. Adhiambo Jacinta@cuea.edu Tel +254-722588341

Consent
By signing this document, I agree to be a part of this study. I will be given a copy of questionnaires and required to fill and return to researcher or research assistant. I understand the aim of the study.

I agree to participate in the study.

________________________________ __________________

Signature Date

I also agree to have my interview audio-taped.

______________________ __________________

Signature Date

APPENDIX D: QUESTIONNAIRE FOR STUDENTS

The Catholic University of Eastern Africa

P.O. Box 62157-00200

Nairobi – Kenya

March 28th, 2018

Dear Participant,

Re: Invitation to Participate in the Research

I am in the process of collecting data for my doctorate dissertation in Educational Administration and Planning at the Catholic University of Eastern Africa, Nairobi Kenya. My dissertation topic:

"*Influence of cost-sharing policy on students' access and participation in South Sudan public universities.*"

I am kindly requesting you to take at least ten minutes of your valuable time to complete the attached questionnaire. Your participation is absolutely voluntary and your consent is required before undertaking this exercise. This means you do not have to write your name on the questionnaire since the information provided shall be treated confidentially and will be used only for academic purposes.

I will be most grateful if you could kindly complete as honestly as possible providing the most appropriate response to each question. Note that each answer counts. Please, accept the assurance of my highest respect for your cooperation

Yours truly,

Sisto Otim Oywak
Researcher
Email: sistootim@yahoo.com
Tel: + 254-703809600/+211-928620926

Questionnaires for Students

Section A: Respondents' Background

Instruction:

Write your response in the space provided or tick in the bracket like this [✓] to indicate a "yes" that is your preferred answer

1. **Name of University**

   University of Juba [ ]

   Upper Nile University [ ]

2. **Distance of university from home**

   In-state [ ]

   Out-of-state [ ]

3. **Category of admission**

   General admission [ ]

   Private admission [ ]

   Mature admission [ ]

   Distance learning admission [ ]

4. **Year of study**

   1st year [ ]

   2nd year [ ]

   3rd year [ ]

   4th year [ ]

   5th year [ ]

   6th year [ ]

5. **Resident status**

   On campus [ ]

   Off-campus [ ]

6. **Gender**

   Male [ ]

   Female [ ]

7. Age bracket

Less than 20 [ ]

21 – 30 [ ]

31 – 40 [ ]

41 and above [ ]

Section B: The Socio-economic Status of the Parents

8. What is the highest level of education your father and mother completed? (*Please tick only)*

Level of Education Completed	**Father**	**Mother**
a. No formal education		
b. Primary education		
c. Secondary education		
d. College diploma		
e. Bachelor’s degree		
f. Master’s degree		
g. Ph.D.		

9. How would you describe your parents’ occupation? (*Please tick only)*

Occupation	**Father**	**Mother**
a. Employed		
b. Unemployed		
c. Self-employed		
d. Retired		

10. Considering the nature of your parents' occupation, can you recall the extent to which your parents' work allows them to provide you career advice?

a.	
b.	
c.	

11. Please estimate the monthly income of your family household? (*Please tick only)*

Parents' monthly income	**Father**	**Mother**
a. Less than SSP 3,000		
b. SSP 4,000 – 6,000		
c. SSP 7,000 – 10,000		
d. SSP 11,000 and above		
e. I don't know		

12. What is the number of siblings in your family? (*Please tick only)*

Numbers of children	**Siblings**
a. 1-2 members	
b. 3-5 members	
c. 6-9 members	
d. 10 members and above	
e. None	

13. Considering the number of siblings in your family, to what extent do you think your parents can afford the cost of their access to university education? *(Select the appropriate description)*

a. Can afford	
b. Cannot afford	
c. I am not sure	

14. Please indicate whether you agree or disagree with the following statement on the correlation between choice and household income.

a. Low-income families are less likely to access public university	
b. Low income families with large size household cannot afford the cost of their children's education	
c. Middle income families with large size households cannot afford to pay their cost of their education	
d. Upper-income groups are less bothered by cost compare to low-income families	

15. Based on the assessment of your own family, what funding model would you prefer? Tick the most appropriate.

a. Replace tuition fees with blanket subsidies	
b. Maintain tuition with Financial aid	
c. Maintain tuition only	

16. Give reasons for your answers above.

a.	

b.	
c.	

Section C: Net cost and Students' Participation

17. Reasons for choosing public university;

Multiple responses expected! Please choose only one primary reason		
Grounds for choosing to enroll	**Important**	**Most Important**
a. Reputation of the institution		
b. Reputation of the city		
c. Desire to obtain a university degree		
d. Desire to live at home		
e. Tuition cheaper than in private universities		

18. Reasons for choosing a course;

Multiple responses expected! Please choose only one primary reasons		
Grounds for choosing to enroll	**Important**	**Most Important**
a. Personal interest in the course		
b. Expect a well-paid job up on graduation		
c. Affordable		
d. Parents want me to apply for the course		
e. Quality of teaching		

19. Who is currently paying for your education cost?

Multiple responses expected.		
Sponsor	**Important Sources**	**My Most Important Source of Funding**
a. Self		
b. Parents		
c. Government		
d. Donor		
e. Business organization		

20. Enumerate what type of support you receive from your most important source of funding?

a.	
b.	
c.	

21. Please rate how net cost affect the out-of-state students in South Sudan public universities using the scale below;

Very Low	**Low**	**Undecided**	**High**	**Very High**
1	2	3	4	5

a. Cost of tuition fees since the introduction of cost-sharing	
b. Cost of accommodation since the introduction of tuition fees	
c. Cost of food since the introduction of cost-sharing model	

d. Cost of transport since the introduction of tuition fees	
e. Cost of Medicare since the introduction of tuition cost-sharing	

22. What are the challenges facing students' access in South Sudan public universities?

a.
b.
c.

23. What are the strategies to improve access in South Sudan public university?

a.
b.

Section C: Students' Perception on Tuition and Fee

24. Describe tuition and fees status in South Sudan public universities?

Extremely Low	**Low**	**Not sure**	**High**	**Extremely High**
1	2	3	4	5

25. In your own opinion, how has the introduction of tuition fees influenced your participation using *the scale below;*

Strongly disagree	**Disagree**	**Not sure**	**Agree**	**Strongly agree**
1	2	3	4	5

a. Universities are better places to determine tuition pricing	
b. Leave the role to control tuition pricing to the government	
c. Tuition fees be scrap until government provide financial aid	
d. Return to "free" high education policy	

26. What challenges do you experience since the introduction of tuition and fees in South Sudan public universities?

a.
b.
c.

27. What aspect of the tuition and fees charges that you want improved?

a.
b.
c.

Section D: Lunch Voucher Programme and Students' Participation

28. Please indicate whether you receive lunch at college *(tick the correct answer)*;

Yes	
No	

29. If yes, indicate how the lunch programme has benefited your study?

a.
b.
c.

30. Please, indicate whether you agree or disagree with the following statement on the lunch voucher programme, u*se the scale below;*

Strongly disagree	**Disagree**	**Not sure**	**Agree**	**Strongly agree**
1	2	3	4	5

a. Pro-poor intervention	
b. Increase enrollment	
c. Improved college attendance	
d. Receive a full meal per day	
e. Cost-effective	

31. What are the challenges affecting the implementation of the lunch voucher programme in South Sudan public universities?

a.
b.

32. How can these challenges be overcome to improve students' participation?

a.
b.

Thank you for your assistance.

APPENDIX E: INTERVIEW GUIDE FOR THE NATIONAL COUNCIL

In-depth Interview Guide for Member of National Council for Higher Education; Admission and Grants Committees

Matters to Note:

i) The information given in this interview will be held in strict confidence and will be used only for the purpose of the study.

ii) If any of the questions may not be appropriate to your circumstance, you are under no obligation to answer.

iii) The word Committee means the working group of the National Council for Higher Education

Section A: Background Information

1 Name of Committee____

2 Age bracket

30-40 [ ] 41-50 [ ] 50 and above [ ]

3 Gender

Male [ ] Female [ ]

4 Education level

BA/BSc. [ ] MA/MSc. [ ] Ph.D./Prof [ ]

5 How long have you been a member of this Committee; ______________________

Section B: Questions for Members of Grants' Committee Only

6. Can you kindly share with me what proportion of the national wealth is spent on education?
7. How can these expenditures be classified?
8. On what services are these expenditures allocated?

9. How much of this expenditure is directly or indirectly allocated to students' participation?
10. How much of this expenditure is directly or indirectly allocated to the participation of students' from marginalized groups?
11. What are the strategic and operational challenges facing the mobilization of higher education funding?
12. How can these challenges be collectively resolved at all levels through the involvement of government, students and/or their parents, sponsors and business communities?

Section C: Questions for Members of Admission Committee Only

13. Can you kindly share with me the current admission students' admission pathways?
14. Enlist the numbers of students who enrolled in public universities from 2012-2016.
15. How many of 2012 cohort has progressed to completion?
16. How many of 2012 cohort has dropped out along the way?
17. What are the reasons for rise or decrease in students' number from 2012-2016?
18. In you honest opinion, how has the introduction of cost-sharing affected students' participation in South Sudan public universities?
19. What are the strategic and operational challenges facing students' enrolment in South Sudan public universities?
20. How can these challenges be collectively resolved at all levels through the involvement of government, students and/or their parents, sponsors and business communities?

Thank you for your assistance.

APPENDIX F: INTERVIEW GUIDE FOR PARENTS
In-depth Interview Guide for Parents

Matters to Note:

1. The information given in this interview will be held in strict confidence and will be used only for the purpose of the study.
2. If any of the questions may not be appropriate to your circumstance, you are under no obligation to answer.
3. The word parent can be substituted with guardian

Section A: Personal Profile

1 Gender

Male [ ]   Female [ ]

2 Age

Below 40 [ ]   41-50 [ ]   51 and above [ ]

3 Parental marital status

Single [ ]   Married [ ]   Divorced [ ]   Separated [ ]   Widowed [ ]

4 Family size

0-3 [ ]   4-6 [ ]   7 and above [ ]

Section B: Questions for parents on Students' Access and Participation

5. Can you share with me your opinion on the influence of regulated tuition fees on your children's participation in South Sudan public universities?
6. What is your opinion on the influence of students feeding programme on your children's participation in South Sudan public universities?
7. What are the challenges faced by parents in enabling their children to access and participate in South Sudan public university?

Thank you for your assistance.

APPENDIX G: INTERVIEW GUIDE FOR FOOD CONTRACTORS

In-depth Interview Guide for Food Contractors

Matters to Note:

4. The information given in this interview will be held in strict confidence and will be used only for the purpose of the study.
5. If any of the questions may not be appropriate to your circumstance, you are under no obligation to answer.
6. The word parent can be substituted with guardian

Section A: Personal Profile

5 Gender

Male [ ] Female [ ]

6 Age

Below 40 [ ] 41-50 [ ] 51 and above [ ]

7 Years of experience working in food for education

Over five years [ ] Over ten years [ ] First year [ ] No experience [ ]

8 Is the company registered with Ministry of Legal Affairs?

Yes [ ] No [ ] Not yet [ ]

Section B: Questions for parents on Students' Access and Participation

8. Can you share with me your opinion on lunch voucher programme?
9. What are the benefits of this programme for you and the students?
10. What challenges are faced by your organization in providing this service?
11. How can these challenges be collectively resolved to enable you work effectively and efficiently?

Thank you for your assistance.

APPENDIX H: INTERVIEW GUIDE FOR UNIVERSITY ADMINSTRATORS

Matters to Note:

i The information given in this interview will be held in strict confidence and will be used only for the purpose of the study.

ii If any of the questions may not be appropriate to your circumstance, you are under no obligation to answer.

iii The word university administration refers to senior staff in both the deanship of administration and academic affairs

Section A: Background Information

1 Office of the dean of Academic Affairs/Administration………………………

2 Age bracket

30-40 [ ] 41-50 [ ] 50 and above [ ]

3 Gender

Male [ ] Female [ ]

4 Education level

BA/BSc. [ ] MA/MSc. [ ] Ph.D./Prof [ ]

5 For how long have you been a member of staff ? ______________________

Section B: Questions to Deanship of Administration

6. Kindly share with me the budget making procedures.
7. Share with me information on special pro-poor or pro-rural students' programmes in the budget plan.
8. How is income from tuition fees managed?
9. What are the logistical challenges facing the implementation of free lunch?

Section C: Questions to Deanship of Academic Affairs

10. Can you kindly share with me the enrolment trend 2012-2016 by gender and college?
11. Looking at the cohort of 2012 specify how many have dropped out and how many have completed their four or six years of study in your university?

Thank you for your assistance.

APPENDIX I: FOCUS GROUP DISCUSSION GUIDE FOR STUDENTS

Matters to Note:

1. The information given in this interview will be held in strict confidence and will be used only for the purpose of the study.
2. If any of the questions may not be appropriate to your circumstance, you are under no obligation to answer.

Questions (Q1- Q4)	**Probe Themes/Sub-themes**	**Aim**
Influence of family income on students decision to choose programme	Parents income, level of education and occupation • Students whose parents are in formal employments perform better than those whose parents are in informal employment • Parents level of education influence students' participation • Students from peasant families (low-in-come) tend to perform poorly as compared to those whose parents are in well-paying job	Ensure that socio-economic difference does not hinder access and participation
Influence of government financial support on enrolled students	Policy on tuition fees regulation, education lunch vouchers, and provision of students' housing • Discussion on grants towards the revival students social welfare association • Public-private sector loans schemes and access to long term credit • Constant monitoring and evaluation of regulatory tuition fees framework, and ensuring non-abuse of private admission scheme	Ensure equity in access, retention and completion
Influence of business communities on students' retention	Donation, contracts and rent of goods and services • Discussion on transparency of	Ensure public- private partnership in higher education

	contract and involvement of all stakeholders in negotiation • Prompt payment for services delivered to reduce the backlog of non-paid services • The balance between profit making and human capital development	
Influence of bilateral/multinational on students' retention	Increase direct and indirect contributions to support students' participation • Discussion on how donors can reduce the burden transfer to students and/or their parents • Promote the culture of charitable donations locally and globally	Ensure strategic cooperation with bilateral/multinational donor to reduce burdens on students' access and participation

Thank you for your assistance.

APPENDIX J DOCUMENT ANALYSIS GUIDE

Document Analysis Guide:

Review of documents on budget trend from 2012-2016 per public university.

Budget Year	**2012**	**2013**	**2014**	**2015**	**2016**
Allocation amount					
Disburse amount					
Generated revenue by universities					

Source: *Annual Budget Year Books 2012-2016 - Ministry of Finance and Economic Planning, Republic of South Sudan*

1. Review of enrolment trend for period from 2012-2016.

Year	**2012**	**2013**	**2014**	**2015**	**2016**
Numbers of enrolled students					
Numbers of students who drop-out					
Numbers of students who completed					

Source: *Directorate of Admission, Evaluation and Authentication Database, Ministry of Higher Education, Science and Technology 2012-2016*

2. Review of policy changes on budget and enrolment since 2011-2016.

Year	**Track important Policy Landmark**
2011	Dissolution of Students' Welfare Association
2013	Revival of Students' Feeding
2014	Regulation of Tuition Fee

Thank you for your assistance.

APPENDIX K: OBSERVATION GUIDE

Section A: Observation Grid

Site Location	Date	Start Time	End Time
• University of Juba (UoJ)	April 2nd - June 3rd, 2018	Monday: 8:00 a.m. Thursday: 2:00 p.m.	2:00 p.m. 5:00 p.m.
• Upper Nile University (UNU)		Tuesday: 8:00 a.m. Friday: 2:00 p.m.	2:00 p.m. 5:00 p.m.

Section B: Areas of Observation

	What to be observed	Field Notes	Reflective Comments
Students' Purchase Power	a. Dress code b. Types of smart phone c. Types of vehicle driven d. Types of clubs/cafeteria frequented	• UoJ Orientation Week -April, 2018 • Both universities were on Session	• Inflation appears to have imposed discipline on the code of dressing, and type of vehicle used • Concern about safety and security means there were no stretch-out evenings

	What to be observed	Field Notes	Reflective Comments
Students' Environment	a. Lecture halls b. University libraries c. Photocopy regime d. Sports activities	• Shared hall • No internet • Limited number of books • High use of photocopying	• Photocopy provided by private providers • Contracted companies cook & provide food on campus • Both universities

	e. Kitchen & dining halls f. Power generation & regulation g. Large number of employees	• Large number of employees but little effect on compound	use generators to generate power. But UNU provide power for a longer time than UoJ • Both universities encourage political debates on campus rather sports

Thank you for your assistance.

APPENDIX L: ANTI-PLAGERISM REPORT

INFLUENCE OF COST-SHARING ON ACCESS AND STUDENTS' ACADEMIC PARTICIPATION IN SOUTH SUDAN PUBLIC UNIVERSITIES

By

Sisto Otim Oywak

Submission date: 16-Nov-2018 11:57PM (UTC-0800)
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APPENDIX M: ETHICAL CONSIDERATION

For ethical considerations, the real names of participants were withheld but codes and date of interviews provided;

1. **Students (Stud)**

University A	Date	University B	Date
Stud #1	April 11th, 2018	Stud #6	April 21st, 2018
Stud #2	April 13th, 2018	Stud #7	April 23rd, 2018
Stud #3	April 15th, 2018	Stud #8	April 25th, 2018
Stud #4	April 17th, 2018	Stud #9	April 27th, 2018
Stud #5	April 19th, 2018	Stud #10	April 29th, 2018

2. National Council for Higher Education (NCHE)

Code	Date
NCHE #1	April 25th, 2018
NCHE #2	April 30th, 2018
NCHE #3	May 05th, 2018
NCHE #4	May 10th, 2018
NCHE #5	May 15th, 2018
NCHE #6	May 20th, 2018

3. University Administration (Adm.)

Uni. #A	Date	Uni. #B	Date
Adm. #1	April 20th, 2018	Adm. #3	April 5th, 2018
Adm. #2	April 24th, 2018	Adm. #4	April 7th, 2018

4. Parents (Par.)

Code	Date
Par #1	June 6th, 2018
Par #2	June 12th, 2018
Par #3	June 18th, 2018
Par #4	June 24th, 2018

5. Food Contractors (CTR)

Code	Date
CTR #1	June 5th, 2018
CTR #2	June 10th, 2018

6. Focus Group Discussion

University A	Date	University B	Date
Uni. #A	May 15th, 2018	Uni. #B	May 30th, 2018