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AN EXPLORATORY STUDY ON THE IMPLEMENTATION OF STUDENT LOANS IN ALLEVIATING POVERTY AND ITS CONTRIBUTION TO HUMAN CAPITAL DEVELOPMENT IN SIERRA LEONE

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Abstract:
The investment in education creates present costs but brings benefits in the future, such as increased earnings, improved health, economic growth, long life, and better service delivery in the place of work. The student expenses include but are not limited to tuition fees, books, and lodging costs, which can be classified as direct costs and the opportunity cost of forgoing present leisure for expected benefits. Taking a loan from a bank requires collateral such as houses or machinery, but this is not the case with student loans; hence stringent agreement must be signed by the students showing commitments on the side of the student to honour future liabilities from future earnings as a student cannot contractually commit to handing over their future labour to a lender in exchange for upfront cash, because indentured servitude is illegal. The limitation of not providing collaterals has made it possible for governments to be the key investors if not the only investors, in student loans as private investors are reluctant to provide unsecured loans, although there have been occasional efforts to offer loans securitized by human capital, none has moved beyond a small niche market This market failure explains why governments play an essential role in lending for education in developed and developing countries, and there is remarkably little compelling evidence of the effect of student loans on educational. Higher education or tertiary education has been perceived as an essential

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sector that contributes to economic progress among the countries of the world. Higher education has grown rapidly in Sierra Leone. At the same time, the cost of higher education is also rising in all Tertiary Educational Institutions in Sierra Leone. Education loans or student loan schemes, as one of the sources of financing higher education, have been introduced in most countries worldwide. This paper attempts to understand the student loan schemes introduced, such as tuition fees, accommodation, and learning materials, and implemented in Sierra Leone through the government of Sierra Leone. The study concludes that the student loan procedures followed in other countries, such as the income-contingent loan (ICL) model that has been widely used around the globe and this recommendation be considered with suitable modifications for the improvement of our education loan scheme at present. In addition, future research recommendations were made.

Keywords: cost, higher education, loan scheme, education loan, student loan scheme

1. Introduction

The cost-sharing approach between the government and students is becoming a norm in most countries around the world as public resources are proving increasingly insufficient to finance tertiary education. However, cost-sharing cannot be implemented equitably without adequate student support mechanisms for academically qualified but needy students. There are two ways of offering financial support: through targeted scholarship schemes and through student loan programs that make funds available to all students who wish to borrow for their education. Students receive loans to cover the direct cost of education (tuition fees, education supplies, including computers) and, in some cases, living expenses until they finish their studies. Then, after a short grace period to find a job, usually, from six to twelve months, the graduate starts repaying the loan every month (Salmi, 2003). The economic and civic development of a society is directly related to its educational infrastructure and outcome. Education is a vital component in the socioeconomic development of a country and the benefits of education are not only limited to individual personal development but also benefit the national economy (Fatima & Nasr, 2009).

The Sierra Leone students' loan scheme was established by an act of Parliament on the 6th day of December 2021 to finance higher education by providing loans to students pursuing programmes leading to the award of certificates, diplomas, undergraduate and postgraduate degrees in an accredited tertiary educational institution in Sierra Leone. A tertiary educational institution is an institution, including a university, university college, polytechnic, or training college. The loan provided shall be used to finance personal expenses, including tuition fees, cost of boarding or lodging, books, and other purposes that may be necessary for students under the Sierra Leone students' loan scheme.

The student loan scheme supports the outcomes of the free quality education program for primary and secondary schools by accommodating the resultant increase in

higher education enrolments. The absence of an affordable option for financing higher education will demotivate parents and students to continue secondary school education and result in dropouts at this critical level.

The student loan scheme model will ensure equitable access to higher education in Sierra Leone by increasing access for students from poor households and rural or underserved communities all over the country, who would otherwise not be able to gain such access due to prohibitive costs, poor infrastructure, and limited information.

It will reduce pressure on scholarship programmes, including the grant-in-aid, which would now be primarily targeted to support truly indigent students.

Estimating the long-run cost to the government for issuing student loans is essential: policymakers need to be aware of the financial implications of any policy decisions they make, even if the total effect on the public finances will not occur for some time.

The implementation of student loans can be challenged by how to finance the expansion of student loans, especially considering the government budget constraints, however, if the repayment of loans shortly is smooth and not impeded by defaulters, the budgetary constraint will be reduced. In parallel, if there are high default rates in the future and fiscal constraints can jeopardize the government-administered loans and student grant-in-aid that the government has been using to assist higher education in Sierra Leone (Dearden & Nascimento, 2019); estimating this long-run cost may be challenging since it requires sophisticated modelling of future graduates' uncertain incomes and repayment behaviour. In theory, student loans should have a positive impact on college attainment. However, student loans differ from grants in their economic nature; a grant is a price subsidy, whereas a student loan is a consumption-smoothing device, which becomes the student's liability after graduation. Hence, grants and loans offer students different incentives (Cho *et al.,* 2015). Research has indicated that Student Loans though removing the temporal financial burden from the student can either have a positive (Alon, 2007; Chen & DesJardins, 2010) or a negative (Dwyer, McCloud, & Hodson, 2012; Kim, 2007; Paulsen & St. John, 2002) effect on student enrollment, continuity of their courses, or drop out from their courses.

2. Literature Review

The investment in education creates present costs but brings benefits in the future such as increased earnings, improved health, economic growth, long life, and better service delivery in the place of work. The student expenses include but are not limited to tuition fees, books, and lodging costs which can be classified as direct costs and the opportunity cost of forgoing present leisure for expected benefits. Taking a loan from a bank requires collateral such as houses or machinery but this is not the case with student loans hence stringent agreement must be signed by the students' showing commitments on the side of the student to honour future liabilities from future earnings as a student cannot contractually commit to handing over their future labour to a lender in exchange for

upfront cash, because indentured servitude is illegal. The limitation of not providing collaterals has made it possible for governments to be the key investors if not the only investors in student loans as private investors are reluctant to provide unsecured loans; although there have been occasional efforts to offer loans securitized by human capital, none has moved beyond a small niche market This market failure explains why governments play an important role in lending for education in developed and developing countries and there is remarkably little compelling evidence of the effect of student loans on educational (Dynarski, 2015).

Hillman (2014) considered the similarities and differences in student loans between the UK and Australia in four areas, namely, Student loan entitlement, default rates, the balance between public and private contributions, and repayment. The parameters of the two countries' student loan systems are different. The scope of tuition fee loans is broader in Australia than in England. The expected rates of non-repayment were lower in Australia compared to England. Both countries have faced a particular challenge in the recovery of loans from former students living abroad. Australia does not extend support for tuition costs to students from other countries, as England is obliged to do under European Union (EU) rules. The paper focused on potential lessons for England, the rest of the UK, and also for Australia.

Kaur & Singh (2012) tried to identify the challenges faced by bank managers in financing higher education. They have categorized various challenges to making well-informed decisions relating to the provision of funds for higher education. The data were collected from public and private sector banks operating in the Punjab state of north India. The study revealed that in the stages of loan duration, the stress level of the students and of the managers was different for the different level of income groups and urban students were more aware of higher education loans compared to rural students.

Cooper & Christian (2014) discussed two alternative methods of funding higher education and the cost of implementing the strategies for students compared to the current student loans model in the U.S. The Tertiary Education Levy (TEL) was an alternative model which was developed by the authors of this paper; that overcomes many of the limitations of the student loans funding model in the U.S. and the income-contingent scheme (HECS) model in Australia. The model also considered the benefits that both the individual (PRR-Private Rate of Return) and society (SRR-Social Rate of Return) gain from higher education. The repayments were based on the cost of the course and income earned but if they do not earn the income threshold, they do not make repayments. There is less financial burden on the graduate. It was found that the TEL model reduces the unmanageable levels of debt associated with other models and was likely to encourage a greater proportion of students from low socio-economic backgrounds to pursue higher education.

The use of income contingent loans (ICLs) for Higher Education (HE) students is becoming increasingly prevalent around the world. Two other countries with long-established ICL systems are Australia and New Zealand; these countries have a much lower average loan balance at graduation than England, due to lower tuition fees in both

countries and maintenance loans not being available in Australia, unlike in England where the repayment rate is applied to marginal income over the threshold, in Australia, once the minimum threshold is reached the debtor repays a percentage of total income, generating a 'cliff edge' at the repayment threshold (Britton *et al.,* 2019).

The growing literature on income-contingent student loan systems in individual countries is in its infancy. The Australian and English systems, in particular, have received a lot of attention; Chapman (2006) gives an overview of the Australian system, Barr and Crawford (2005) and Dearden, Fitzsimons, Goodman, and Kaplan (2008) analyze the 2006 English reforms, Johnston and Barr (2013), Chowdry, Dearden, and Wyness (2010) and Dearden, Goodman, Kaplan, and Wyness (2010) [work was a significant contribution to 2012 English reforms and Belfield, Britton, and van der Erve (2017) research was concentrated on reforms. Barr, Chapman, Dearden, and Dynarski (2018) research was centered on ICLs in the United States. Chapman and Lounkaew (2010) research discussed issues around income-contingent student loans in developing economies. Evidence in research indicates that grant aid is an effective mechanism to reduce student loans (Odle, *et al.*, 2021).

Human capital is another, very valuable, kind of capital. It is costly to acquire, like physical capital, and pays off over time, like physical capital. The term human capital suggests to some a depersonalization or commercialization of the individual and is often associated in popular discussions with a dehumanizing society that equates men with machines. When economists first began to measure the sources of economic growth, what previously had been considered an unexplained residual was shown to be attributable to human capital (Baptiste, 2001). From studies of the development of the American economy and the sources of growth of many countries around the world, it has become recognized that human capital—the skill of the population—plays a major role in explaining differences in productivity and inequality among nations (Becker, 1964; Schultz, 1981).

Human capital also improves adaptability and allocative efficiency. More skilled workers allocate resources more effectively across tasks and are more able to adapt to change and respond to new opportunities (Nelson & Phelps, 1966; Schultz, 1975). These benefits of human capital investment are relevant to economic growth. The term human capital refers to knowledge, attitudes, and skills that are developed and valued primarily for their economically productive potential. It "*refers to the productive capacities of human beings as income-producing agents in an economy*" (Hornbeck & Salamon, 1991, p. 3) and to "*the present value of past investments in the skills of people*" (Blaug, 1970, p. 19). Human capital formation is the name given to the process by which such capital is deliberately developed, and the expenditure (in time, money, etc.) is called human capital investment (Becker, 1962, p. 9). The 18th-century economist Adam Smith introduced the notion of humans as capital in his classic *Wealth of Nations* (Smith, 1937). Others, such as Marshall (1930) and Irvin Fisher (1906), kept the idea alive (Walsh, 1935). Notwithstanding its long history, the theory of humans as capital remained relatively undeveloped (however, developed and developing countries have come to the realization that human capital

development is fundamental to economic growth). For much of the ensuing two hundred years [after the publication of *Wealth of Nations*], economic thought largely ignored Smith's insights and focused instead on the role of land, capital stock, and hours of labor as the crucial ingredients in economic growth (Hornbeck & Salamon, 1991, p. 3).

Both individuals and society reap significant economic and other benefits from investing in higher education, and loans have become a pervasive means of financing student costs and consequently realizing these benefits. However, there are serious negative consequences of the loan trend as it is highly likely that students who default on their loan repayment may not find suitable jobs (Gladieux & Perna, 2005).

This research is an exploratory study to understand the impact of the implementation of student loans in alleviating poverty and its contribution to human capital development in Sierra Leone.

3. Research Aim, Objectives, Questions, and Methodology

3.1 Research Aim

This paper aims to understand the impact of Student Loan Implementation and suggest measures to strengthen the loan scheme based on the research findings

3.2 Research Objectives

1) To determine the impact of student loan implementation in alleviating poverty and its contribution to human capital development in Sierra Leone.
2) Based on the findings, suggest measures to strengthen the existing loan scheme.

3.3 Research Question

1) What is the impact of student loan implementation in Sierra Leone?
2) Are existing structures and policies adequate for implementing the student loan scheme in Sierra Leone?

3.4 Research Methodology

The study adopts the exploratory and ex-post facto design. The exploratory design was used to gather relevant materials from existing literature and data such as from related articles, journals, the internet, the database of the Ministry of Finance, and, students' information from the various universities in Sierra Leone. The ex-post factor design was adopted; however, it does not provide the study the opportunity to control the variables as they have already occurred and cannot be manipulated.

3.5 The Australian Student Loan Scheme Model

3.5.1 Higher Education Contribution Scheme - Higher Education Loan Program

Australia was the first country to introduce an income-contingent loan program for the payment of university fees, i.e., the Higher Education Contribution Scheme (HECS) in 1989, administered by the Department of Education. There were major reforms to higher

education in 2003, which came into effect in 2005. HECS was absorbed into the Higher Education Loan Programme (HELP) and has been referred to as HECS-HELP since 2005. HELP loans are repaid through the tax system once a person earns over the compulsory repayment ceiling. HELP debts and repayments are managed by the Australian Taxation Office (ATO). The following table shows the various phases of developing the Australian student loan model.

Table 1: Australian Student Loan Model: Phases of Development

Timing	Tuition fee regime	Loans availability
1973-1986	No tuition fees	None-no fees
Higher Education Contribution Scheme (HECS), 1989	Standard (delayed) tuition fee	Tuition loans for public sector students
Reforms of 1997	Higher (deferred) differential fees.	Tuition loans for public sector students
Since 2005	Higher (deferred) differential fees.	Loans extended to private-sector students

Source: Adapted from Adrian Ziderman (2016).

3.5.2 Higher Education Loan Programme (HELP)

After the introduction of HELP by the Australian Government, the scope and coverage of the HELP scheme have grown to five constituent sub-programs covering various types of loans to university and vocational education students. This loan programme helps eligible students to pay their student contributions (HECSHELP), tuition fees (FEE-HELP), student services and amenities fee (SA-HELP), overseas study expenses (OSHELP), and Vocational Education and Training fee (VET FEE-HELP).

- **HECS-HELP Loan Scheme**

HECS-HELP is the loan scheme by the Australian government to help eligible Commonwealth-supported students to pay their "student contribution" amounts, which applies to most domestic undergraduate students studying at Australian public universities. The student contribution amount is calculated by considering the number of units the student studies, the Equivalent Full-Time Student Load (EFTSL) of each unit, the price band to which the unit belongs, and the year in which the student began their study. Students enrolled in a CSP either have to pay their student contributions upfront or can access the HECS-HELP scheme to pay their student contributions. The amount of HECS-HELP an eligible student can access has no financial limit. From 1989 to 1997, all students were charged a fixed contribution rate regardless of their course of study. In 1997 a differential system of "bands" was introduced to consider both the different cost structures of disciplines and the different earning potential of graduates. There are three student contribution bands considering different areas of study with a minimum and maximum range that can be charged for units, normally, around 8 units in a band per year. For example, Student contribution for Band 2 includes computing, built environment, other health, allied health, engineering, surveying, agriculture, mathematics, statistics, and science, with a student contribution range per EFTSL of $0-

$9,050 for the year 2017. The institutions set the student contribution amount for each unit of study they offer, not exceeding the maximum rate set by the government. Due to indexation, the maximum band amounts slightly increase each year. Students who paid the upfront payment of $500 or more of their student contribution to the approved institution by the census date, received a 10% discount. This discount was removed on 1 January 2017. The study assist website lists the student contribution bands and rates with a note applicable to the concerned units or courses.

- **FEE-HELP Loan Scheme**

This scheme was introduced to assist domestic fee-paying students to pay their tuition fees. A fee-paying place is not subsidised by the Australian government. Students who are enrolled in an eligible course of study in a fee-paying place at an institution or provider or through Open Universities Australia (OUA) charged tuition fees for their studies or are part of bridging studies for overseas-trained professionals; and meet the citizenship and/or residency requirements for the purpose by the census date are eligible for FEE-HELP, up to the FEE-HELP limit. Both in undergraduate and postgraduate courses at private higher education institutions and in postgraduate courses at universities, generally, fee-paying places are offered. There is a lifetime limit on FEEHELP debt i.e., the total amount of FEE-HELP a person can use over their lifetime, which is the consolidated amount under both the FEE-HELP and VET FEE-HELP loan schemes. There is a 25 percent loan fee for undergraduate courses of study. The loan fee is calculated against the amount of FEE-HELP a student is receiving for the unit and added to a student's FEE-HELP debt.

- **OS-HELP (Overseas-HELP) Loan Scheme**

OS-HELP loan scheme assists eligible undergraduate and postgraduate CSP students, who are enrolled in an accredited course of study to undertake a portion of their studies overseas. This scheme is introduced to help students with expenses, such as airfares, accommodation, and other costs of studying in a foreign country. These loans are paid by the Australian provider and in turn, reimbursed by the Government. An eligible student can also receive a supplementary loan amount to undertake language study, in preparation for overseas study in Asia. There is a limit of two OS-HELP loans for overseas study over a student's lifetime. One OS-HELP loan is available for six months of study. The OS-HELP debt is required to be repaid by the students even if they do not complete their studies in Australia and/or overseas study for which the OS-HELP loan was borrowed.

- **SA (Student Services and Amenities)-HELP Loan Scheme**

The Australian Government introduced SA-HELP in 2011, to assist students in paying student services and amenities fees. SA-HELP loan scheme is for students who are eligible and enrolled at an approved institution with a desire to pay all or part of the student services and amenities fee with SA-HELP loan, up to the maximum fee charged

for the relevant year to a full-time student. Students can borrow only this loan or can borrow this loan along with other HELP loans. Institutions can spend the fee only for services and amenities such as employment and career advice, sporting and recreational activities, financial advice, food services, and child care. They cannot spend the fee to/for supporting a political party, or the election of a person to a Commonwealth, state or territory, or local government body. In addition to this, the institutions must not require students to become members of a student organisation.

- **VET (Vocational Education and Training) FEE-HELP Loan Scheme**

The Australian Government introduced VET FEE-HELP in 2007, for eligible students studying higher-level Vocational Education and Training (VET) courses with an approved provider by paying their tuition fees. In this scheme, an eligible course is a VET-accredited diploma, advanced diploma, graduate certificate, and graduate IRA-International Journal of Management & Social Sciences 36 diploma; it is also to be extended to selected certificate IV qualifications in certain states/territories for a trial period. Any amount borrowed by the student under either VET FEE-HELP or FEE-HELP should not exceed the FEE-HELP limit. There is a loan fee of 20 percent for all courses for fee-paying students. The VET FEE-HELP scheme, which ceased for new students on 31 December 2016, was replaced by VET Student Loans on 1 January 2017.

4. The Sierra Leone Students Loan Scheme and the Eligibility Criteria for Sierra Leone Students Loan

The main objective of the student loan scheme is no student shall be denied the opportunity to pursue higher education for want of financial assistance. The repayment of the loan will be made from the future earnings of the students after the completion of their course study. In addition, the cost of grant-in-aid on the government of Sierra Leone which seems to be free, is a serious burden considering the annual GDP of the country which needs to be taken off and replaced by the loan scheme.

The eligibility criteria for the loan borrower in Sierra Leone include:

- the student must be a Sierra Leonean national living and schooling within Sierra Leone and need financial support,
- the students must have gained admission to an accredited tertiary education Institution in Sierra Leone,
- the students must be pursuing a programmers' leading to the award of a certificate, diploma, undergraduate and postgraduate degree,
- the student is not able to bear the entire cost of higher education,
- the students must not be beneficiaries of other organizations or sources of other government funding.

The eligibility criteria can be achieved by observing the above eligibility criteria for student loans; the best observational evidence has been used in South Africa and Chile

(Solis, 2012; Gurgand, *et al*., 2011). In these countries, students are offered loans only if they have a minimum credit score (South Africa) or test score (Chile).

5. Repayment Model

Although financial aid is an enabler to help low-income students enter and complete college (Marx & Turner, 2017), unlike other types of loans, student loans are not dischargeable in bankruptcy, and wages can be garnished for the rest of a borrower's lifetime. Thus, besides the usual stigma associated with loan defaults—such as tainted credit scores and limited access to credit markets—the expectation of wages being garnished may affect student loan borrowers' job search and incentives to work, while the fact that loan defaults can be observed by employers may affect their prospects of finding a job in the first place (Mueller & Yannelis, 2019). Hence, there is the need to set a clear repayment model as indicated below and this should be effectively communicated to the borrowers, i.e. the student. Students in financial needs do not necessitate their willingness to borrow, as some, due to their cultural beliefs, maybe debt averse (Burdman, 2005; Callender & Jackson, 2005), and some may only borrow as a measure of last resort, and therefore the need for information sharing (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2012; Castleman & Page, 2014; Dynarski & Scott-Clayton, 2013) for students to enter into a loan agreement with a clear mind of the rules and regulations.

The repayment model set out below is based on assumptions using the civil service payroll:

- To estimate the long-run cost to the government of providing student loans to a particular cohort of students, we need to know the value of the loans issued to each individual in that cohort over the course of their degree (i.e. their stock of debt); the gross annual income of each individual to whom a loan was issued; this enables us to calculate: (a) the interest rate that graduates face on their loans each year (b) the amount that they should repay each year; and hence (c) the loan repayment period.
- We calculate the interest rate subject to a real interest rate of 2% per year (that is, 2% on top of inflation, as measured by the consumer price index (CPI)). After this point, the interest rate payable will vary depending on a graduate's income.
- Graduates with income below Le 13 million per annum will face a 0% real interest rate. The real interest rate then increases linearly with an income of 2%, reaching a maximum of 4% for graduates with an income of Le 60 million, or more.
- The loan period is subject to income-contingent repayment: graduates must repay 20% of gross income monthly for a 'repayment threshold'. Government calculations will assume that this repayment threshold will be increased each year in line with the national average earnings of undergraduates.
- The loan will be repaid over a period of ten (10) years after graduation with two years grace period. The two-year grace period after graduation will allow the student to settle into life before he/she starts to service the loan.

It is frequently suggested that public education is a social investment in individuals that emigrants fail to repay and that, therefore the highly trained in particular, ought to be forced to repay this investment before they are allowed to leave the country. Such suggestions and the entire idea of a "debt to society" due to publicly financed education appear to be based on misapprehension (Grubel & Scott, 1966).

5.1 Theoretical Recommendation for Student Loan Repayment

The use of income contingent loans (ICLs) for Higher Education (HE) students is becoming increasingly prevalent around the world. Two other countries with long-established ICL systems are Australia and New Zealand. These countries have a much lower average loan balance at graduation than England due to lower tuition fees in both countries and maintenance loans not being available in Australia. Unlike in England where the repayment rate is applied to marginal income over the threshold, in Australia once the minimum threshold is reached the debtor repays a percentage of total income, generating a 'cliff edge' at the repayment threshold (Britton *et al.,* 2019).

In an income-contingent system, repayments instead are x percent of the borrower's current income until he/she has repaid the loan. Further, in virtually all ICL systems payments are taken only after income reaches a threshold (to protect those facing financial stress). Hence, in an ICL system, the variable component is the duration of the loan, which is longer for borrowers with lower incomes. Income contingency turns many standard understandings about student loans upside down.

ICL model of payment is built around the following mentioned criteria:

- An increase in the interest rate does not affect monthly repayments; what changes is the duration of the loan.
- What is fixed is the fraction of a person's income absorbed by loan repayments.
- If a person's income rises, their repayments increase, but their repayment burden cannot exceed the repayment rate defined in the policy.
- A robust collection mechanism.

An income-contingent design is a better fit than a conventional loan for borrowing to finance human capital (Barr *et al*., 2017).

5.2 Key Elements in the design of Income-contingent Loan (ICL)

The core elements of an ICL are:

- The repayment rate(s), that is, repayments as a percent of a person's current income;
- The repayment threshold, that is, the level of income at which repayments start;
- The interest rate and/or loan surcharge/administrative charge;
- A cap on total and/or annual borrowing from the student loan system;
- The maximum number of years of repayment, that is, forgiveness after n years;
- Conditions for early repayment;
- A robust collection mechanism.

Whatever student repayment model is adopted, effective communication plays an important role. Student loan debt is most commonly communicated to borrowers in a lump-sum format, with students receiving a financial statement each semester listing their cumulative total amount of debt. Unlike most consumer debt, in which repayment begins soon after it is incurred (e.g., auto loans, mortgages, credit card debt), student loan debt has a large temporal separation between the consumption experience of acquiring higher education and the scheduled repayments (at least six months after graduation) (Zhang *et al.,* 2020). Thus, while enrolled there is usually a span of several years during which student borrowers keep accumulating debt without making any payments. Student borrowers are often not aware of the actual cost of higher education until much later (Johnson *et al.,* 2016).

5.3 Modeling in Administering the Student Loans in Sierra Leone

A well-structured repayment program would insure borrowers against both micro and macro shocks. With an interest rate that appropriately accounts for the government's borrowing and administrative costs, as well as default risk, this program could be self-sustaining. Designing such a program requires detailed data on individual earnings and borrowing, which are currently unavailable to researchers within and outside the government, and if loan policy is to be firmly grounded in research, this gap in the data needs to be closed (Dynarski, 2015). Policies need not only to be well designed to effectively address market failures, but their parameters also need to be part of agents' information sets. Most developed countries substantially subsidize college enrollment through financial aid and subsidies to public institutions and some developing countries including Sierra Leone are providing loan facilities to enable students to enroll and complete their courses in higher education. When individuals seek to finance their education, they will find it challenging to take out a commercial loan because of the absence of collateral and the presence of a moral hazard. Financial aid in the form of grants or attractive loans is aimed at lifting credit constraints. There is, however, evidence that students underutilise financing possibilities in the forms of loans; some have suggested that this is due to "debt aversion" which occurs when having a debt lowers utility over and above its impact on lifetime consumption patterns (Field, 2006; Oosterbeek and Van den Broek, 2008). Another barrier to student loan take-up is information, and if students are imperfectly or incorrectly informed about loan conditions, take-up rates on student loans will be suboptimal and may reduce investment in post-secondary education (Booij, *et al.,* 2008).

In the case of Sierra Leone, we assume that once the total number of students in each category to be awarded loans has been established, the number is inserted in a simulation model to determine the evolution of student loan accounts up to the settlement of the loans.

6. Benefits of the Student Loan

There is remarkably little compelling evidence of the effect of student loans on educational investments (Dynarski 2015). However, the expected benefits of student loans mentioned below may be attained with the implementation of student loans in Sierra Leone:

- Social benefit: it helps to produce the country with skilled manpower needed for social and economic growth.
- It helps to promote equality of opportunity for access to higher and tertiary education in Sierra Leone.
- It reduces the government of Sierra Leone's spending on subsidies to universities and student grants-in-aid.
- The government of Sierra Leone will be able to recover more than half of its cash investment. From the previous survey conducted it is estimated that at least 60% of student loan recovery rate is recorded.
- It will increase revenue for higher learning institutions since the government will pay the fees of students benefitting from the student loans directly to those institutions.
- A loan is a serious commitment, and this commitment could improve the sense of responsibility in young graduates, resulting in a more focused approach to seeking and retaining employment and prudent financial management behavior.
- It will inspire students to pursue their dreams and academic ambitions to their highest potential, sparking creativity, innovation, and growth in our young people and their communities.

In addition to the immense benefits, numerous empirical studies demonstrate that more educated and skilled people adapt better to change. They can benefit from opportunities that become available and create new opportunities of their own. They enhance productivity in the workplace. The greater skill also facilitates worker mobility across occupations, industries, and regions in response to new opportunities. It helps people reallocate resources, both human and physical, toward more productive opportunities, and even realize that those opportunities exist. A more educated workforce is a more flexible workforce. More educated people are better able to absorb new ideas, adopt foreign technologies, improve local technologies, and understand and apply knowledge from outside to local situations (Heckman, 2005).

7. Suggestions to Strengthen the Student Loan Scheme in Sierra Leone

Certain measures can be considered to strengthen the student loan scheme in Sierra Leone:

- Higher educational institutions are also the potential beneficiaries of the loan. They can take initiatives in promoting the student loan operation, create credit awareness in students, gather information, guide and help the students in

obtaining a loan so that more and more needy students can benefit from the scheme.

- Higher educational institutions can also present the required documents to the student loan scheme secretariat as and when requested by the scheme. This will help to track the loan beneficiaries after completion of their studies and help the secretariat in the recovery of loans.
- The secretariat and educational institutions of the students should keep track of the students who availed of student loans and should guide the students in getting jobs to repay the loan.
- In the case of students who borrowed education loans and who are employed after the completion of their higher education, the secretariat should keep track of such students through educational institutions and their parents to avoid willful defaults.
- The creditworthiness of students who seek education loans and their parents must be strictly assessed.
- The scheme must ensure that the loan is utilised for higher education purposes. The marks cards (progress reports) of students must be insisted on particularly to ensure the progress made by the students and also to see that the students are pursuing their education.
- Link student loan information with his/her National Identification Number (NIL) held with the National Civil Registration Authority (NCRA).
- Guarantor to provide evidence of NASSIT contribution as a fallback in the evidence of non-repayment when the loan is due for repayment.
- Other community actors such as the paramount chief, religious leaders, tribal heads, etc. serve as witnesses to the student loan agreements.
- Student loan records should be kept with the immigration office to prevent graduates from leaving the country without the proper arrangement of honouring their loan obligation and this includes a guarantor with collateral to pay the loan in case the graduate/student decides to stay out of Sierra Leone, and such guarantor should not be different from the one at the time of entering into the student loan agreement.
- The existence of the guarantor should be monitored. In the case where the guarantor, unfortunately, is deceased immediate arrangements should be made for a replacement of new a guarantor.

8. Conclusion

The economic and civic development of a society is directly related to its educational infrastructure and outcome. Education is a vital component in the socioeconomic development of a country. The benefits of education are not only limited to individual personal development but also benefit the national economy (Fatima & Nasr, 2009).

Human capital theory (Becker, 1993; Becker & Tomes, 1979; Mincer, 1962; Schultz, 1960) supports a rationality assumption of parents investing their time and resources in their children. The theory suggests that an individual will make investments in human capital if the potential benefits exceed the costs associated with education. The status attainment model (Sewell & Hauser, 1980) posits that parents' socioeconomic status and educational expectations are passed on to their children. Related to decisions on financial aid, the theory of efficient human capital investment implies that financial aid increases the educational attainment of children whose parents do not contribute to their education (Brown, Scholz, & Seshadri, 2012). Brown *et al.* (2012) found that as the unmet expected family contribution increases, the child has more difficulty in financing college. This leads to an increase in the demand for financial aid.

Research supports the positive returns to education. In general, there is a consensus that higher education is an important investment for younger individuals to equip them for better job prospects and higher income potential (Cho, *et al.*, 2015).

While most studies have focused on the family and parents' role in education loan decisions, Booij, Leuven, and Oosterbeek (2012) investigated the role that college students' knowledge and information played in the decision-making and such knowledge is pertinent to student loan uptake and clear communication of the sense of responsibility made known to the student. In a study using a randomized experiment in the Netherlands, presenting information regarding the loan (such as loan conditions, interest rates, and repayment periods) did not significantly influence students' borrowing decisions.

Several studies have examined attitudes toward education loans and student debt in general (Chudry, Foxall, & Pallister, 2011; Davies & Lea, 1995; Haultain, Kemp, & Chernyshenko, 2010). In a qualitative study, Chudry *et al.* (2011) explored the factors affecting undergraduates' borrowing attitudes and found that students considered education loans as a way to enhance their future, rather than a form of debt.

Although attitudes toward debt had been considered to be either positive or negative, a psychological structure of attitudes toward debt and higher education was suggested to be multidimensional (Haultain *et al.*, 2010). In three studies on New Zealand tertiary students, Haultain *et al.* found that two dimensions, fear of debt and debt utility, were associated with how debt was described.

In theory, student loans should have a similar positive impact on college attainment. However, student loans differ from grants in their economic nature. A grant is a price subsidy, whereas a student loan is a consumption-smoothing device, which becomes the student's liability after graduation. Hence, grants and loans offer students different incentives

Student loans as a source of financing higher education play an important role in increasing access to tertiary education especially, among students from families of low socio-economic status in Sierra Leone. The students are provided sufficient funds in time to continue and complete their higher education. The student loan procedures followed in other countries can also be considered for the improvement of our education loan

scheme at present. The pros and cons of such procedures can be tested in light of the present economic situation of the country. With suitable modifications, such a procedure can be adopted to ensure that needy students will get the higher education that shapes their lives as well as contributes to the development of the economy.

Experience in countries like the USA, England, and Ghana just to name a few, shows that student loan schemes do work, although critics predicted that students would not be willing to borrow and that loans would discourage low-income students and women who would be frightened by the idea of a "negative dowry", there is evidence that loans are popular with students; there is no evidence that they discourage women or students from low-income families.

Evaluations of educational credit in Latin America show student loans have been successful in increasing enrolments in many countries and have enabled poor students to enroll who could not otherwise have afforded higher education before.

Experience with loan schemes shows there are no quick savings to be gained from introducing loans. This would be true even if loans were accompanied by the introduction of fees since it takes many years for loan repayments to build up sufficiently to contribute substantial revenue. However, long-run savings should not be despised because there are no short-run benefits. Calculations in Canada, show clearly that there will be long-run savings if loans are used, rather than grants.

Loan repayments already contribute a quarter of Sweden's student aid budget, which reduces the burden on public funds. American experience also shows that in a developed country the commercial banking system can contribute significantly to the funding of student loans, thus reducing the burden on public funds.

Sierra Leone, therefore, is by no exception in the implementation and management of Student Loans considering the huge benefits as highlighted by the economic growth and its contribution to human capital development in Sierra Leone.

Understanding how a given policy idea lines up against each of these goals can help policymakers ensure they optimize their solutions for the problems they want to address in a manner that would be effective and borrowers need to see and feel actual relief under any program solution for current student debt; in some cases, this might entail addressing potential unintended consequences (Holger *et al.,* 2019). We recommend the government consider the income-contingent loan (ICL) model that has been widely used around the globe.

9. Recommendation to Future Researchers

As the implementation of the student loan scheme is in its infancy in Sierra Leone the undermentioned researchers are recommended for future research:

1) The impact of student loans on economic development in Sierra Leone.
2) The effect of student loans on university enrollment in Sierra Leone.
3) The study of student loan repayment in Sierra Leone.

These recommended future researches should be in the form of working papers as whatever, result/s from the research may provide room for improvement and recommendations for future research.

Conflict of Interest Statement

This research is free from any conflict of interest and has no anticipated ethical issues.

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