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To Leave No One Behind

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WORKING PAPER
#15

WHO GETS IN AND WHO'S LEFT OUT?

Determinants of Selection in a Social Lending Scheme for Higher Education in Kenya

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About the Project

This research paper is a product of the Innovative Financing for Education to Leave No One Behind project, funded by the TRANSFORM research initiative of the Swiss Agency for Development and Cooperation and by consortium members. The project focuses on utilising and assessing the contribution of innovation in education financing to bring in more and better financing to reach the most disadvantaged and marginalised groups.

Please visit www.norrageducation.org/ife-2-leave-no-one-behind for more information about the project.

Project Consortium Partners

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About LEAP

Lending for Education in Africa Partnership (LEAP) is a student financing programme designed to provide students with affordable financing to pursue quality higher education while providing holistic student support through financial literacy and career readiness training during and after completion of their studies. It is funded through a number of impact and development finance investors and managed through Volta.

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About Volta

Volta is an impact advisory firm that designs tailored solutions to deploy capital for social and environmental good. Combining financial expertise with a strong commitment to ethics and integrity, it specialises in structuring funds, financial vehicles, and products that mobilise resources for underserved communities while generating financial and social returns. With over 15 years of experience, Volta and its principals have built a diverse portfolio and client base, from social initiatives with development finance partners to innovative instruments such as a pay-for-performance bond in Cameroon and the LEAP higher education finance programme in East Africa.

About the Lead Author

Allan Kimaina is a PhD candidate at Stellenbosch University, focusing his studies on poverty alleviation in Africa through youth entrepreneurship and employment. His research and practice span entrepreneurship, behavioural economics, and applied data science, with a focus on youth employment, entrepreneurial mindset development, and innovative financing for education. Allan has led and contributed to projects on impact measurement, innovative financing, longitudinal entrepreneurship studies, and the application of artificial intelligence in clinical medicine. He is passionate about leveraging data and evidence to drive inclusive development and strengthen entrepreneurial ecosystems in Africa.

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ABSTRACT

Background

Kenya's gross tertiary enrolment rate increased from 3.97% in 2009 to 20.48% in 2022, reflecting improved access; however, gender and socio-economic disparities persist. At the same time, rising secondary school completion rates have increased the demand for tertiary education. Across Sub-Saharan Africa (SSA), the access crisis is more severe: enrolment averages around 9% compared to the global average of 38%, with public investment in higher education at around 1% of the GDP. Private innovative financing models such as the Lending for Education in Africa Partnership (LEAP) have emerged to address these gaps, yet little is known about how beneficiaries are selected.

Methods

This study examines factors influencing selection into the LEAP programme, which offers student loans, career readiness training, and financial literacy. A five-year retrospective dataset was analysed using univariate, bivariate, and multivariate logistic regression.

Results

The overall acceptance rate across the four cohorts (2019, 2020, 2021, and 2022) was 44.85%. Academic performance was the strongest predictor of acceptance: lower grades and failed courses significantly reduced the likelihood of acceptance.

Students in their second and third academic years were three times likelier to be selected than students in other years, suggesting a strategic focus on learners about to enter the labour market. Socio-economic variables, including poverty status and mobile money access, were nonsignificant after adjustment. A gender-sensitive analysis revealed that financial behaviours and loan history had a more significant influence on male applicants than female ones.

Conclusion

This study offers new insights into how access to private social lending schemes such as LEAP intersects with academic performance, progression, and financial history. While the work's findings suggest that certain applicant profiles, such as those in later academic years or those with stronger academic records, were likelier to be selected, socio-demographic factors such as gender and poverty status were not found to be significantly associated with acceptance after adjustment. These patterns likely reflect a strategic rebalancing of inclusion and repayment viability aligned with LEAP's broader mission to expand access to tertiary education through a revolving loan fund. As repayments enable future disbursements, selection criteria must mitigate the tension between reaching underserved learners and ensuring loan performance.

1

INTRODUCTION

In Sub-Saharan Africa and other low- and middle-income countries, obstacles to securing education financing often hinder students from accessing post-secondary education (Wanti, Wesselink, & Biemans, 2022). In Kenya, where financial barriers often impede students from pursuing higher education (Oketch, 2022), innovative financing initiatives from private sector actors, such as the Lending for Education in Africa Partnership (LEAP), have emerged as a complementary solution to government financing schemes. This paper sheds light on the factors influencing student selection for LEAP financing, ultimately aiming to contribute to the enhancement of equitable access to financial aid for tertiary education.

LEAP is a private innovative financing scheme dedicated to providing low-cost loans and comprehensive support services to students who face challenges covering their education costs for tertiary education in Kenya. Given Kenya's current student-financing landscape, LEAP addresses gaps left by government-sponsored programmes such as the Higher Education Loans Board (HELB). While HELB plays a pivotal role in disbursing loans and scholarships to Kenyan students, challenges such as high default rates and limitations in addressing holistic student needs have prompted the rise of innovative financing solutions such as LEAP.

This paper first provides a comprehensive discussion on the background of student financing in Kenya, emphasising the role of HELB and the challenges it faces. It then introduces LEAP as a private social lending scheme that complements government programmes, detailing its unique approach and the services it offers beyond financial support. Subsequently, the study's methodology, which focuses on a pooled cross-sectional retrospective design and a de-identified dataset from LEAP, is outlined. The paper then uses univariate, bivariate, and multivariate logistic regression analyses to elucidate the factors influencing selection into the LEAP programme. Lastly, the article discusses the potential implications of these findings and additional considerations for the programme, thereby guiding policymakers and similar organisations in their pursuit of inclusive and equitable higher education.

Evolution of the Context of Student Financing in Kenya

Access to affordable financing for tertiary education is undeniably essential in fostering educational attainment and facilitating social mobility (Oketch, 2022; Wanti, Wesselink, & Biemans, 2022). However, in many developing countries, such as Kenya, financial barriers often hinder students from pursuing higher education and realising their dreams (Oketch, 2022). The transition from secondary school to tertiary institutions remains a significant challenge, with only about 20.48% of students who complete secondary school proceeding to tertiary education (World Bank, 2022a). In 2023, tertiary enrolment in Kenya stood at around 27% overall, yet participation from the poorest income quintile was practically zero, compared with approximately 9.8% among the wealthiest quintile (World Bank, 2023).

To address this issue, various loan and financing programmes have been introduced and improve accessibility to higher education. Notably, the Higher Education Loans Board (HELB), a Kenyan government–sponsored body, is the primary student financing scheme offering loans and scholarships to students attending higher education institutions.

HELB uses several criteria to determine whether students are eligible for their loans. Its primary target population is made up of Kenyan students pursuing higher (undergraduate) education. Applicants must be Kenyan citizens over the age of 18 years (HELB, n.d.) who have been admitted to a recognised institution of higher education to a full-time course for at least one year within the East African Community. Eligible applicants must have a minimum undergraduate qualification of Second-Class Honours, Upper Division (HELB, n.d.). The applicant must also provide a valid email address, telephone number, primary and secondary index numbers and year of examination, passport-size photo, copy of national ID, and college/university admission letter (HELB, n.d.). HELB also considers the socio-economic status of the applicant – this is determined by various factors, such as the income level of the applicant's family, the occupation and educational attainment of the applicant's parents, and the number of dependents in the applicant's family (HELB, n.d.).

1. These loans provide funding up to 70% of the need (tuition and living costs), depending on support from other sources, such as the HELB.

As of December 31, 2021, the Higher Education Loans Board (HELB) had supported access to higher education for over 1.23 million students through the disbursement of KES 130.1 billion (USD 1,182.7 million) (HELB, n.d.). While most funding was in the form of student loans, HELB has also provided bursaries and scholarships to postgraduate students (HELB, n.d.). Despite these efforts, the programme continues to face critical challenges, such as the non-repayment of loans by students, with default rates reaching up to 27% as of 2021 (HELB, n.d.). The reasons for these high default rates are multifaceted. A major factor contributing to loan defaults in Kenya is unemployment and poor remuneration at work. According to a 2016 World Bank report, one out of every five Kenyans aged 18–34 was unemployed (World Bank, 2016). This high unemployment rate, coupled with low wages for those who are employed, makes it difficult for graduates to repay their loans. Such defaults could jeopardise the long-term financial sustainability of the loan programme. Low loan repayment rates could also decrease the amount of funding available to future students seeking financing assistance (Makulilo, 2014). In 2021 alone, over 82,237 eligible students were unable to secure funding (HELB, n.d.), underscoring the urgent need to address existing hurdles in the loan allocation process.

Innovative financing initiatives that offer low-cost loans or loans based on income-sharing agreements have emerged to complement these efforts and respond to the limitations of the government-sponsored loan programme. One such initiative is the Lending for Education in Africa Partnership (LEAP), a private organisation dedicated to offering complementary[1] student loans to young people who are unable to cover their education costs through conventional means, such as government-sponsored loan programmes, scholarships, bursaries, personal savings, or financial support from their families. LEAP social lending fund provides student loans with favourable terms, such as low interest rates and flexible repayment plans that cover tuition and partial living costs. These loans are designed to increase access to higher education for students who face financial barriers, helping them complete their studies and improve their employment prospects.

Unlike HELB, LEAP offers additional non-loan services to students, thus helping them transition into the professional world and increasing their chances of acquiring employment and repaying their loans. These services include career readiness support, financial literacy training, and access to a collaborative peer-to-peer network and alumni community (LEAP, n.d.). Moreover, LEAP aims to achieve financial sustainability through a blended financing model that includes grants and investments from funders (LEAP, n.d.) and a revolving fund. Both HELB and LEAP harness the revolving nature of social lending funds, in which loan repayments from students or lenders (called “fellows” in LEAP) are reinvested into future cohorts, amplifying the programme’s impact and allowing more students to benefit from its support.

Several factors determine LEAP fellowship selection. The programme is targeted at students pursuing undergraduate degrees or diplomas at either universities or Technical and Vocational Education and Training (TVET) institutions (LEAP, n.d.). Students can apply for a fellowship if they meet the following eligibility criteria: (1) they are citizens of Kenya, (2) they are aged 18 or above with a valid national ID or waiting card, (3) they are enrolled in or admitted to a recognised LEAP-partnered tertiary institution, and (4) they are applying for LEAP-supported courses (LEAP, n.d.). Supported courses primarily include employability-oriented disciplines in the health sciences (e.g., medicine, pharmacy, nursing, and clinical medicine), STEM fields (e.g., computer science, data science, mechanical engineering, and electrical engineering), and business-related programmes (e.g., accounting, finance, and actuarial science). This focus reflects LEAP’s commitment to supporting educational pathways with strong career prospects and high repayment potential. Additionally, while a few applicants may have previously obtained undergraduate degrees, these cases are rare and not a specific focus of the programme.

LEAP’s programme operations differ from those of government schemes such as HELB, which typically offer multi-year loan continuity once approved. LEAP requires students to reapply for support before the start of each academic year. Once students are selected, loan disbursements are made in tranches aligned to tuition payment cycles, and continued support depends on the student’s academic performance and demonstrated financial need (LEAP, n.d.). The programme is implemented in a flexible, non-calendar-based cohort cycle, with cohort start and end dates varying across years due to operational, financial, and institutional calendars, and strategic considerations. As a private social lending initiative powered by blended financing, the number of applicants selected in each cohort is partly determined by the availability of investor funding and programme capacity at the time, which accounts for the notable variations in cohort sizes. For example, the second cohort, launched during the COVID-19 pandemic, was intentionally smaller and more experimental than the first, while subsequent cohorts were scaled up or down in response to budget constraints, LEAP Trust Board approval, and evolving priorities (LEAP, n.d.). These priorities included strategic decisions about whether to allocate funding towards TVET institutions versus universities, or to emphasise support for certain disciplines such as engineering over social sciences.

Selection into the LEAP fellowship is based on a combination of academic merit, financial need, and social equity considerations. Academic performance, particularly high school grades and tertiary performance for students who are already enrolled, is an important criterion in the selection process. The programme also assesses financial need and prioritises applicants who are orphans, from single-parent households, or from low-income families, particularly those whose parents have limited formal education or are unemployed. First-generation post-secondary students, individuals with disabilities, student parents, and applicants from historically marginalised areas are given additional priority.

To ensure fairness and consistency in assessing applicants' socio-economic status, LEAP uses the Kenya EquityTool, which

benchmarks applicants' relative wealth against national standards using a structured, asset-based index (Metrics for Management, 2022). The tool classifies households into national wealth quintiles based on responses to 10 standardised questions related to household assets and living conditions. LEAP specifically targets students in the bottom three national wealth quintiles, representing the poorest 60% of the population. In contrast, Quintile 4 (19.78%) and Quintile 5 (19.97%) represent the top 40% of households, typically characterised by greater asset ownership, access to formal financial services, improved housing quality, and modern appliances. By focusing on the bottom three quintiles, LEAP ensures its support reaches those with the greatest socio-economic disadvantage, while maintaining a transparent and nationally comparable selection framework (Metrics for Management, 2022).

Selected fellows of LEAP receive loans with low interest rates, set at 10% per annum. While this rate is higher than that of HELB, which charges a 4%–6% annual interest rate, it remains significantly lower than market rates for commercial loans in Kenya, which are typically 4%–5% above the Central Bank's base rate, currently ranging between 7% and 10% (Central Bank of Kenya, n.d.) and require collateral as part of the application process. Lastly, the repayment terms of LEAP loans are flexible, allowing for a repayment period of up to six years along with a grace period of four months after completion of studies. Loan amounts are determined by income and are calculated as 20% of each fellow's anticipated gross salary according to established salary benchmarks.

Both LEAP and HELB share the ambitious goal of promoting inclusive and equitable quality education for all, as outlined in Sustainable Development Goal 4 (SDG 4) (United Nations, 2015). However, policymakers and education stakeholders must understand the extent to which the selection process leads to the provision of financing to the target population – this ensures that students have fair access to financial resources.

Previous research studies, such as those conducted by Oketch (2022), Odebero (2007), Otieno (2004), and HELB Review (2004), have identified several influential factors in government-led student financial aid programmes. For example, socio-economic characteristics, including household income and parents' educational background, have been found to play a crucial role in loan allocation. Otieno (2004), in particular, found that students from lower-income backgrounds often face greater financial challenges and may not be prioritised in the loan allocation process (Otieno, 2004). Moreover, gender has emerged as a potential factor in loan selection, with studies suggesting that male students are likelier to qualify for loans than their female counterparts. This gender disparity may result from broader social and cultural barriers, such as early marriage, gendered expectations around caregiving, lower female secondary school completion rates, and limited family investment in girls' education, all of which restrict women's access to both educational opportunities and financial resources (Odebero, 2007). Lastly, academic performance, as indicated by high school grades, is often taken into account in loan selection criteria. Students with higher academic achievements are considered likelier to qualify for loans, leading to a higher chance of selection (HELB Review, 2004).

While substantial research has explored these factors in government-led student financial aid programmes (HELB Review, 2004; Oketch, 2022; Odebero, 2007; Otieno, 2004), only a limited number of studies have specifically examined the factors influencing loan selection in the context of private sector innovative social lending schemes like LEAP. Having a nuanced understanding of the dynamics at play as the landscape of student financial aid continues to evolve with innovative approaches is crucial for designing fair and transparent selection processes, ensuring that support reaches the most deserving applicants, and aligning programme goals with equity and sustainability objectives. In particular, comprehending how specific factors influence loan approval in such schemes is essential for evaluating the inclusiveness of the selection process and identifying areas for improvement.

This study examines the relationship between specific selection factors and the acceptance into the LEAP programme. These selection factors include a range of (1) socio-demographic and socio-economic characteristics, (2) applicants' academic standing in high school and tertiary education, and (3) applicants' prior and current credit histories. By gaining deeper insights into how these factors influence the selection process, we seek to enrich our comprehension of the mechanisms driving equitable access to financial aid for aspiring students. The findings of this study have the potential to provide invaluable reflections on the beneficiary selection process for the LEAP programme. Moreover, the significance of this study's findings could potentially extend beyond LEAP: Policymakers and innovative financing organisations dedicated to promoting higher education and economic empowerment can leverage the outcomes of this research to inform their decisions on equitable selection policies.

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METHODOLOGY

Study Design

This study employed a pooled cross-sectional retrospective design that utilised a de-identified dataset collected and provided by the LEAP programme in Kenya. The unit of analysis in this study is the applicants for the LEAP programme. LEAP collects data on each applicant's financial standing, past credit behaviours, income/expenditure information, employment history, gender, age, marital status, disability status, students with children, and academic standing at both the high school and tertiary levels. This dataset was made available to the research team alongside outcome information indicating whether a student was selected for the LEAP programme. Descriptive and inferential statistical analyses, including logistic regression, were conducted to investigate the correlation between the selection covariates (applicant characteristics) and the outcome (selected versus rejected).

Hypotheses

Understanding the factors influencing the selection process of the LEAP programme is this study's primary focus. By examining these factors, we assess the effectiveness of the LEAP programme in promoting equitable access to higher education, a key component of LEAP's Theory of Change.

- **Hypothesis 1: LEAP selection is effective in promoting equitable access to financial aid.**
  This hypothesis examines whether the LEAP programme's selection process fairly considers socio-demographic and socio-economic factors, ensuring that students from diverse backgrounds, including those from low-income families and marginalised groups, have equal opportunities to receive financial aid as those from more privileged backgrounds. The analysis assesses socio-demographic and socio-economic characteristics, such as age, gender, marital status, candidates with children, disability status, poverty line status (i.e. whether they are below the poverty line), financial inclusion (having a bank account or mobile money account), and employment status.
- **Hypothesis 2: LEAP selection promotes financial return.**
  This hypothesis explores whether the selection process favours applicants who are likely to succeed academically and, by extension, secure employment and repay their loans – key drivers of programme sustainability. However, it is important to note that the dataset does not include direct outcome measures such as post-graduation employment or repayment behaviour. Therefore, this hypothesis is assessed indirectly using academic performance indicators (e.g. high school grades), student progression (e.g. academic year, deferrals and retake units), and other education-related covariates as proxies for potential future repayment capacity. These proxies are informed by programme logic and stakeholder consultations but are not validated outcome predictors in the LEAP context, nor are they drawn from a formal literature review. As such, any findings related to the second hypothesis should be considered exploratory, and future research using longitudinal outcome data should rigorously test this hypothesis.

In exploring the two hypotheses, we closely examine the counterfactual hypothesis by questioning the potential negative impact of introducing financial returns into education service delivery, specifically whether it leads to the exclusion of vulnerable and marginalised groups of students. By testing these hypotheses, the study aims to provide insights into the effectiveness of the LEAP programme selection process in promoting equitable access to higher education and ensuring long-term financial sustainability.

Study Population

The study population consisted of all applicants who had applied to be part of the LEAP programme's first four cohorts and met the minimum eligibility requirements. The study population included both students who were ultimately selected for the programme and those who were not selected. The inclusion criteria for this study were carefully determined using the available dataset from the first four cohorts. The number of participants included in the analysis was contingent on the data's completeness.

All LEAP programme applicants who applied between December 2019 and July 2022 were included in the study. While the LEAP programme has continued beyond 2022, the dataset provided by the implementing team was officially closed in October 2023, with data extraction being limited to the programme's four fully concluded cohorts at the time. This study is based on the most complete and cleaned data available at the time of extraction. The core structure

2. These low application numbers could be attributed to the challenges of the COVID-19 pandemic.

of the LEAP programme remained stable over the course of this period, though minor operational adaptations occurred, such as improvements to the selection rubric, refinements to the equity scoring system, and slight shifts in cohort timing based on funding availability and external disruptions like COVID-19. After removing 12 applicants whose records had more than 70% missing data, the final analytic sample included 2,290 applicants.

Figure 1 depicts the distribution of participants across the four cohorts. Cohort 1, comprised of individuals who applied from December 2019 to February 2020, accounted for approximately 31.70% of the total sample, with 726 applicants. Cohort 2 covers March 2020 to June 2020 and includes 362 applicants [2], representing about 15.81% of the total sample. A total of 177 individuals who applied from December 2020 to August 2021 made up Cohort 3, accounting for approximately 7.73% of the total sample. The final cohort, Cohort 4, encompassed the period from September 2021 to July 2022 and had a significant number of applicants at 1,025, representing approximately 44.76% of the total sample.

Outcome Definition

The response variable in this analysis is a binary indicator of whether a student is selected (i.e. whether they received a loan or not) for the LEAP programme. The selection outcomes of the study participants are presented in **Figure 2**.

- **Rejected:** A total of 1,263 applicants were not selected for the LEAP programme, representing approximately 55.15% of the total applicants.
- **Accepted:** A total of 1,027 applicants were selected for the LEAP programme, indicating a selection rate of approximately 44.85% of the total applicants.

Figure 3 depicts the acceptance and rejection rates of each cohort. A total of 728 individuals were considered for Cohort 1. Of these, 76% (552 individuals) were not selected, while the remaining 24% were selected. In Cohort 2, 358 individuals were part of the analysis. Among them, 33% were not selected, and 67% were selected. A total of 177 individuals constituted Cohort 3. Of these, 42% were not selected, and 58% were selected. Lastly, Cohort 4 comprised 1,025 individuals. Within this cohort, 51% were not selected, while 49% were selected.

Equity Measurement Approach

Key equity indicators such as parental education, occupation, and other social variables used to construct the wealth quintile-based equity score were not accessible to the research team. As a result, we could not assess the internal classification of applicants by equity score or determine whether selected fellows were concentrated within the bottom three wealth quintiles, as intended by the programme. To address this limitation, we constructed an alternative measure of socio-economic disadvantage using the World Bank's international poverty line. This threshold defines individuals living in extreme poverty as those making less than USD 1.90 per day, equivalent to approximately KES 272 per day based on purchasing power parity (World Bank, 2022b). This enabled us to identify applicants likely to be living in poverty using a globally recognised benchmark even without access to internal scoring data.

Statistical Analysis

The statistical analysis was performed using R software (R Core Team, 2022). The analysis consisted of three main parts: univariate analysis, bivariate analysis, and multivariate analysis using logistic regression.

First, a descriptive analysis was conducted to examine the distribution and summary statistics of the selection covariates and the outcome variable. Frequency tables, histograms, and measures of central tendency and dispersion were used to assess the distribution of each variable.

Next, bivariate analyses were conducted to explore the relationship between each selection covariate and the outcome variable. Categorical variables were assessed using Pearson's chi-square test (McHugh, 2013), while two-sample t-tests were employed to determine the association between categorical and continuous variables, assuming Gaussian distribution (Hosmer et al., 2013).

Figure 1: Distribution of Participants Across the Four LEAP Programme Cohorts

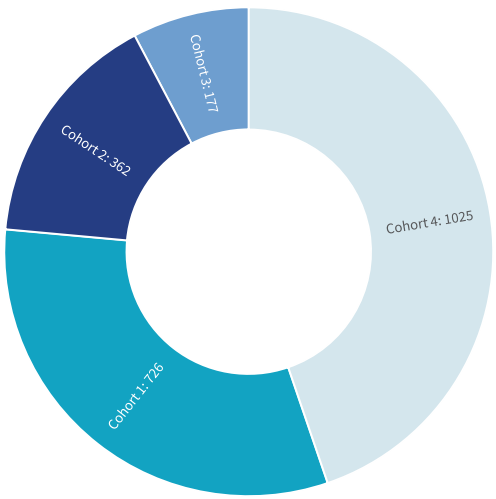


Figure 2: Acceptance Rate

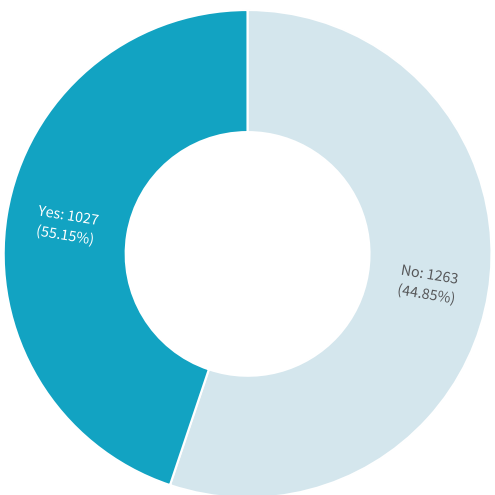
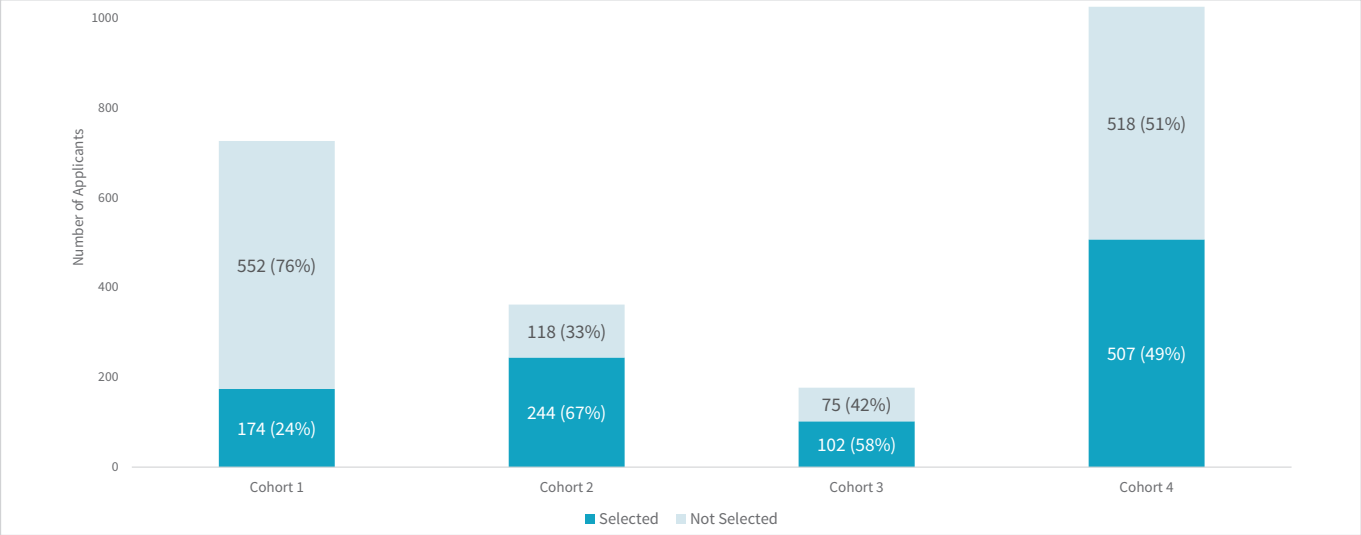


Figure 3: Acceptance Rate per Cohort



For non-normally distributed continuous variables, the two-sample Wilcoxon rank-sum test was used. In cases where the categorical variable had more than two levels, such as a Likert scale, a Kruskal–Wallis test (one-way ANOVA on ranks) was employed (Krzanowski & Hand, 2009). Normality assumptions were evaluated using the Shapiro–Wilks and Shapiro–Francia tests (Razali & Wah, 2011).

Finally, multivariate analyses were conducted using logistic regression to estimate adjusted odds ratios and their corresponding 95% confidence intervals for each selection covariate, considering the likelihood of being selected for the LEAP programme. All selection covariates were included in the model, and adjustments for potential confounders were made. Model goodness of fit, multicollinearity, and interaction effects were assessed using the appropriate statistical techniques (Hosmer et al., 2013; Menard, 2002).

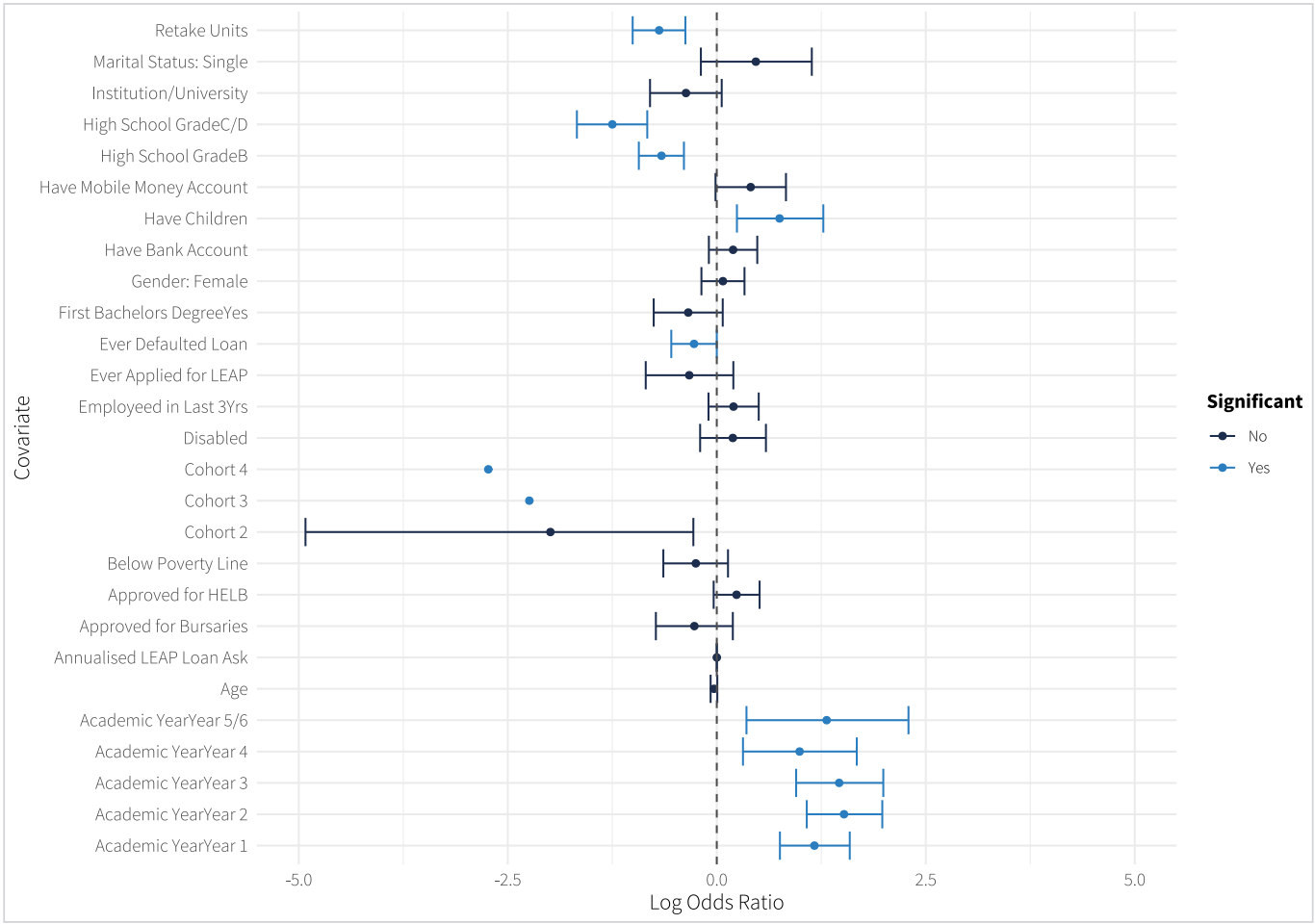
3

FINDINGS

Summary of Findings

The study explored various socio-demographic, socio-economic, educational, and loan financing characteristics to understand the predictors of programme selection. In this summary, "before adjustment" refers to the initial analysis in which each variable's impact on the likelihood of being selected for the LEAP programme was examined individually without accounting for other factors. "After adjustment" concerns a multivariate analysis in which the effects of all variables are considered simultaneously to identify which factors independently influence the selection process. This distinction clarifies both direct associations with selection likelihood and the factors that remain significant when controlling for other variables. The summary below highlights some of the key findings of this study.

Figure 4: Predictors of Selection for the LEAP Programme



The study's key findings include the following:

Competitive Selection Process

- The overall acceptance rate for the four cohorts was 44.85%, indicating a competitive selection process, as 55.15% of applicants were not selected.

Cohort Effects

- **Before adjustment:** The cohort to which an applicant belonged significantly influenced their likelihood of selection. Later cohorts, especially Cohort 4, had a significantly lower chance of selection compared to Cohort 1, whose selection process occurred during the height of the COVID-19 pandemic.
- **After adjustment:** This effect remained significant for Cohorts 3 and 4 when compared to Cohort 1, suggesting that potential changes in programme criteria or funding availability over time continued to impact selection outcomes.

Socio-Economic Status

- **Before adjustment:** Socio-economic factors, such as poverty line and access to mobile money accounts, did not emerge as significant predictors of LEAP programme selection. This finding suggests that the programme's selection process may not be primarily influenced by the socio-economic status of the applicants.
- **After adjustment:** These factors remained insignificant after considering other variables. LEAP appears to cover individuals across different socio-economic backgrounds, emphasising a potential commitment to providing support based on individual needs and considering multiple factors rather than financial standing in isolation.

Access to Alternative Funding Sources

- **Before adjustment:** Having a bank account, securing high school bursaries, and securing HELB funding were significantly associated with higher likelihoods of selection. This suggests that applicants with prior financial support were likelier to be selected when considering these factors in isolation.
- **After adjustment:** These associations became statistically insignificant, indicating that LEAP might prioritise applicants based on specific financial needs rather than existing funding sources.

Gender and Parenting Status

- **Before adjustment:** The study revealed that the variables pertaining to gender and having children did not significantly influence the likelihood of being selected for the LEAP programme.
- **After adjustment:** Similarly, gender, particularly being female, did not significantly influence the likelihood of being selected for the LEAP programme after adjusting for other variables. This implies that LEAP's selection process is not disproportionately influenced by gender. However, having children positively influenced programme selection, suggesting that the programme supports parents' access to higher education more than it supports access for those without children.
- **Gender sensitivity analysis:** The study conducted a gender sensitivity analysis that revealed several insights:
  - Having children significantly increased the likelihood of selection for males but had no significant effect for females, suggesting the presence of gender-specific evaluation criteria in the selection process.
  - Having a mobile money account significantly increased the likelihood of selection for males but not for females, indicating that financial behaviours and resources are more critical factors for male applicants than female applicants.
  - A history of loan default significantly decreased the likelihood of selection for males but had no significant effect for females, highlighting possible gender-specific differences in the assessment of financial reliability.

These discrepancies may imply that financial reliability, parenting status, and financial behaviour are weighted more heavily against male applicants than female applicants.

Age

- **Before adjustment:** Younger applicants had significantly higher odds of being selected for the LEAP programme, indicating a preference for younger students.
- **After adjustment:** Age was no longer a significant predictor of selection, suggesting that when other factors are considered, age does not independently influence selection.

Institutional Type and Subject Selection

- **Before adjustment:** Enrolling in a university versus a TVET institution was a significant predictor of selection, with the former being more likely to be selected than the latter.
- **After adjustment:** This factor lost significance after adjustment, indicating that LEAP does not prioritise applicants based on the type of institution they attend. Understanding whether certain academic fields are favoured or if there is a broader commitment to inclusivity across disciplines could shed light on the programme's objectives. Future research should investigate whether one's chosen academic discipline factors into their odds for selection.

Academic Performance

- **Before adjustment:** High school grades were significant predictors. Applicants with higher grades (Grade A) were likelier to be selected than those with lower grades (Grades B, C, D).
- **After adjustment:** This association remained significant, emphasising LEAP's preference for students with strong academic backgrounds.

Consistent Academic Progress

- **Before adjustment:** Retaking academic units was negatively associated with selection, meaning that students who had had to retake courses were less likely to be chosen.
- **After adjustment:** This negative association persisted after adjustment, highlighting the programme's emphasis on consistent academic progress and possibly discouraging academic setbacks.

Student Progression

- **Before adjustment:** Students in higher academic years had significantly higher od ds of selection. Year 2 and Year 3 students were likelier to be selected than those in Year 1.
- **After adjustment:** This factor remained significant, suggesting that LEAP prioritises students who have progressed further in their studies and are at risk of not completing them due to financial challenges.

Results

This section presents the findings of the analysis of the factors influencing the likelihood of being selected for LEAP fellowship. It provides a comprehensive overview of the data collected and analysed, highlighting the key outcomes and trends observed during the investigation. The descriptive statistics for the following covariates are provided in Table 1. The main predictors are then analysed, focusing on their association with the selection outcomes. These predictors were chosen based on LEAP's selection process and encompass a range of categories, including academic performance, financial need, and employability. In addition to discussing the main predictors of selection, the analysis delves into significant findings or patterns related to specific subgroups or covariates. This could include, for example, differences in selection outcomes based on gender or socio-economic status. By examining these variable groups, the study aims to provide a holistic understanding of the selection process, shedding light on the complex interplay of factors determining who becomes a LEAP Fellow.

Socio-Demographic and Socio-Economic Characteristics

The socio-demographic and socio-economic characteristics of the applicants are presented in Table 1. The data are divided into two groups: those selected for the programme and those who were not. The total number of applicants considered for analysis was 2,290, with 44.85% of applicants successfully selected for the LEAP programme, while 55.15% were not selected.

The table includes variable names, sample sizes, means, percentages, and standard deviations (SD). It also includes p-values, which are used to determine the significance of the differences between the selected and non-selected groups. In this context, a p-value is a statistical measure that helps test hypotheses. Specifically, it indicates the probability that the difference in a particular variable between the selected and nonselected groups occurred by chance. A p-value of less than 0.05 is typically considered statistically significant. This threshold of 0.05 is commonly used in many fields of study because it balances the risk of false positives with practical decision-making in hypothesis testing. For instance, if the p-value is less than 0.05, it suggests that the observed data are inconsistent with the assumption of no effect (the null hypothesis); thus, the assumption is rejected. In this study, a p-value less than 0.05 was chosen to indicate a statistically significant difference in the value of the variable between the applicants who were selected versus those who were not.

Overall, the applicants' mean age was 22.2 years (SD = 3.8). The mean age was slightly higher for those who were selected for the programme compared to those who were not selected. However, this difference was not statistically significant (p = 0.065). A vast majority of applicants (98.4%) reported having a national ID. It is worth noting that the proportion of applicants with a national ID was slightly higher among those selected (99.2%) compared to those not selected (97.4%) – a statistically significant difference (p = 0.002). The percentage of females was slightly lower among those selected (29.2%) compared to those not selected (33.8%) – another statistically significant finding (p = 0.019). This difference is concerning as it contradicts LEAP's intention to provide loans to female applicants.

Most of the applicants reported being single, accounting for 96.2% of the overall sample. The proportion of single individuals did not differ significantly between those selected (96.7%) and those not selected (95.9%) (p = 0.3). Approximately 7.5% of the applicants reported having children. The percentage of applicants with children was slightly higher among those not selected (8.3%) compared to those who were (6.9%). However, the difference was not statistically significant (p = 0.2).

Table 1. Summary Statistics – Socio-Demographic and Socio-Economic Characteristics

	Selection Status			
Variable	**Overall, N = 2,290[1]**	**Not Selected, N = 1,263[1]**	**Selected, N = 1,027[1]**	**p-value[2]**
Age	22.2 (3.8)	22.1 (4.0)	22.4 (3.6)	0.065
Have National ID	1,655.0 (98.4%)	738.0 (97.4%)	917.0 (99.2%)	**0.002**
Gender: Female	727.0 (31.7%)	427.0 (33.8%)	300.0 (29.2%)	**0.019**
Marital Status: Single	2,204.0 (96.2%)	1,211.0 (95.9%)	993.0 (96.7%)	0.3
Have Children	172.0 (7.5%)	87.0 (6.9%)	85.0 (8.3%)	0.2
Disability	142.0 (6.2%)	63.0 (5.0%)	79.0 (7.7%)	**0.008**
Below Poverty Line	1,552.0 (67.8%)	694.0 (54.9%)	858.0 (83.5%)	**<0.001**
Have Mobile Money Account	1,536.0 (92.2%)	683.0 (91.8%)	853.0 (92.5%)	0.6
Employed in the Last Three Years	686.0 (30.1%)	417.0 (33.4%)	269.0 (26.2%)	**<0.001**
Have Bank Account	1,317.0 (79.0%)	559.0 (75.1%)	758.0 (82.1%)	**<0.001**

1. Mean (SD); n (%) 2. Wilcoxon rank sum test; Pearson's Chi-squared test; Fisher's exact test

A small proportion of the applicants reported having a disability (6.2% of all applicants). Notably, the percentage of individuals with a disability was higher among those selected (7.7%) compared to those not selected (5.0%), and this difference was statistically significant ($p = 0.008$). In the overall sample, 67.8% of the applicants were below the poverty line. The percentage of individuals below the poverty line was significantly higher among those selected (83.5%) compared to those not selected (54.9%) ($p < 0.001$). This difference supports LEAP's aim to provide loans to students with underprivileged socio-economic backgrounds.

A vast majority of applicants (92.2%) reported having a mobile money account. The proportion of applicants with mobile money accounts did not differ significantly between those selected (92.5%) and those not selected (91.8%) ($p = 0.6$). Approximately 30.1% of the applicants reported being employed over the last three years, with percentages being significantly higher among those not selected (33.4%) compared to those who were (26.2%) ($p < 0.001$). Around 79.0% of the applicants reported having bank accounts. Notably, the proportion of applicants with bank accounts was significantly higher among those selected (82.1%) compared to those not selected (75.1%) ($p < 0.001$).

High School & Tertiary Education Characteristics

Table 2 presents a comprehensive overview of the high school and tertiary education characteristics of the overall sample, as well as the subsets of those selected and not selected for the programme.

The mean high school score for the overall sample was 69.1 out of 100 (SD = 19.3). Those who were selected for the programme had a significantly higher mean high school score of 70.6 out of 100 (SD = 20.1) compared to those who were not selected, who had a mean score of 67.9 out of 100 (SD = 18.5) ($p < 0.001$). This suggests that higher high school scores were positively associated with programme selection.

High school grades were also found to be relevant factors in the programme's selection process. Among the applicants, 47.7% achieved Grade A, 40.6% attained Grade B, 10.9% obtained Grade C, and only 0.8%

Table 2. Summary Statistics – High School and Tertiary Education Characteristics

	Selection Status			
Variable	**Overall, N = 2,290[1]**	**Not Selected, N = 1,263[1]**	**Selected, N = 1,027[1]**	**p-value[2]**
High School Score	69.1 (19.3)	67.9 (18.5)	70.6 (20.1)	**<0.001**
Months Until Graduation	29.2 (16.0)	30.6 (15.4)	27.3 (16.5)	**0.002**
Institution: TVET	506.0 (22.1%)	281.0 (22.2%)	225.0 (21.9%)	0.8
Institution: University	1,784.0 (77.9%)	982.0 (77.8%)	802.0 (78.1%)	0.8
High school Grade: A[3]	1,089.0 (47.7%)	564.0 (44.7%)	525.0 (51.3%)	**0.002**
High school Grade: B[3]	927.0 (40.6%)	509.0 (40.4%)	418.0 (40.9%)	0.8
High School Grade: C[3]	249.0 (10.9%)	169.0 (13.4%)	80.0 (7.8%)	**<0.001**
High School Grade: D[3]	19.0 (0.8%)	19.0 (1.5%)	0.0 (0.0%)	**<0.001**
First Bachelor's Degree	1,360.0 (86.6%)	603.0 (85.0%)	757.0 (87.9%)	0.10
Academic Year Not Started	198.0 (12.8%)	121.0 (17.4%)	77.0 (9.1%)	**<0.001**
Academic Year 1	533.0 (34.5%)	235.0 (33.8%)	298.0 (35.1%)	0.6
Academic Year 2	459.0 (29.7%)	176.0 (25.3%)	283.0 (33.3%)	**<0.001**
Academic Year 3	258.0 (16.7%)	114.0 (16.4%)	144.0 (16.9%)	0.8
Academic Year 4	73.0 (4.7%)	39.0 (5.6%)	34.0 (4.0%)	0.14
Academic Year 5	24.0 (1.6%)	11.0 (1.6%)	13.0 (1.5%)	>0.9
Academic Year 6	1.0 (0.1%)	0.0 (0.0%)	1.0 (0.1%)	>0.9
Retake Units	626.0 (27.3%)	349.0 (27.6%)	277.0 (27.0%)	0.7
Deferred Semester	215.0 (13.8%)	112.0 (16.1%)	103.0 (12.0%)	**0.020**
Balance from Prior Semesters	229.0 (17.9%)	119.0 (19.1%)	110.0 (16.8%)	0.3

1. Mean (SD); n (%)

2. Wilcoxon rank sum test; Pearson's Chi-squared test; Fisher's exact test

3. Grades A, B, C, and D generally correspond to percentage ranges of 80–100% (A), 60–79% (B), 40–59% (C), and 30–39% (D), though these thresholds are adjusted annually by the Kenya National Examinations Council (KNEC) based on national performance trends (KNEC, n.d.).

received Grade D. Those selected had a significantly higher percentage of Grade A (51.3%) compared to those not selected (44.7%) (p = 0.002). Additionally, those not selected had a significantly higher percentage of Grade C (13.4%) compared to those selected (7.8%) (p < 0.001).

Applicants reported an average of 29.2 months until graduating in their tertiary education (SD = 16.0). Notably, those not selected had a slightly longer mean period until graduation (30.6 months, SD = 15.4) compared to those selected (27.3 months, SD = 16.5) (p = 0.002).

Around 77.9% of the overall sample attended a university, while 22.1% attended a TVET institution. There was no significant difference in institution type between those selected and not selected (p = 0.8), suggesting that the type of institution attended may not be a determining factor in programme selection.

Most applicants (86.6%) were pursuing their first bachelor's degree at the time of application. The proportion of individuals pursuing their first degree did not significantly differ between those selected (87.9%) and those not selected (85.0%) (p = 0.10). The distribution of applicants across different academic years showed no significant differences between those selected and not selected (p > 0.05). Year 2 was a notable exception to this trend, as it had a statistically significant (p < 0.001) higher proportion (33.3%) of applicants who were selected than applicants who were not selected (25.3%).

About 27.3% of the applicants had retaken study units or courses. However, this proportion did not significantly differ between those selected (27.0%) and those not selected (27.6%) (p = 0.7). Around 13.8% of applicants reported having deferred a semester, with a slightly higher percentage among those not selected (16.1%) compared to those selected (12.0%) (p = 0.020). Lastly, approximately 17.9% of applicants had outstanding tuition fees from prior semesters. The percentage of individuals with balances did not significantly differ between those selected (16.8%) for the programme and those who were not (19.1%) (p = 0.3).

Prior and Current Loan Financing Characteristics

Table 3 presents the factors related to prior and current loan application characteristics that influence the likelihood of being selected for LEAP fellowship. The variables presented include high school financing support, approval for bursaries, approval from the HELB, the amount of the approved HELB loan, education commercial loans, loan defaults, LEAP application history, year of application, cohort, and annualised LEAP loan ask.

Table 3. Summary Statistics – Prior and Current Loan Financing Characteristics

	Selection Status			
Variable	**Overall, N = 2,290[1]**	**Not Selected, N = 1,263[1]**	**Selected, N = 1,027[1]**	**p-value[2]**
HELB Amount Approved*	42,636.5 (32,621.9)	42,886.8 (31,889.9)	42,302.2 (33,630.1)	0.5
Annualised LEAP Loan Ask	162,432.7 (87,236.1)	153,136.5 (90,818.5)	173,715.0 (81,307.2)	**<0.001**
High School Financing Support	1,029.0 (44.9%)	671.0 (53.1%)	358.0 (34.9%)	**<0.001**
Approved for High School Bursaries	411.0 (17.9%)	296.0 (23.4%)	115.0 (11.2%)	**<0.001**
Approved for HELB	664.0 (29.2%)	378.0 (30.2%)	286.0 (27.9%)	0.2
Ever Taken Commercial Loans	382.0 (22.9%)	180.0 (24.2%)	202.0 (21.9%)	0.3
Ever Defaulted on a Loan	461.0 (20.1%)	208.0 (16.5%)	253.0 (24.6%)	**<0.001**
Ever Applied for LEAP	85.0 (3.7%)	33.0 (2.6%)	52.0 (5.1%)	**0.002**
Year of Application: 2018	1,001.0 (43.7%)	632.0 (50.0%)	369.0 (35.9%)	**<0.001**
Year of Application: 2019	616.0 (26.9%)	235.0 (18.6%)	381.0 (37.1%)	**<0.001**
Year of Application: 2020	235.0 (10.3%)	124.0 (9.8%)	111.0 (10.8%)	0.4
Year of Application: 2021	304.0 (13.3%)	184.0 (14.6%)	120.0 (11.7%)	**0.043**
Year of Application: 2022	134.0 (5.9%)	88.0 (7.0%)	46.0 (4.5%)	**0.012**
Cohort: 1	726.0 (31.7%)	552.0 (43.7%)	174.0 (16.9%)	**<0.001**
Cohort: 2	362.0 (15.8%)	118.0 (9.3%)	244.0 (23.8%)	**<0.001**
Cohort: 3	177.0 (7.7%)	75.0 (5.9%)	102.0 (9.9%)	**<0.001**
Cohort: 4	1,025.0 (44.8%)	518.0 (41.0%)	507.0 (49.4%)	**<0.001**

1. Mean (SD); n (%) 2. Wilcoxon rank sum test; Pearson's Chi-squared test

* Replaced with zeroes for those who were not approved

From the entire sample of 2,290 applicants, 29.2% were approved for loans from HELB. However, the proportion of individuals approved for HELB did not significantly differ between those selected for LEAP fellowship (27.9%) and those not selected (30.2%) ($p = 0.2$). The overall mean loan amount approved by HELB was KES 42,636.5(USD ≈ 292) with a standard deviation of KES 32,621.9 (USD ≈ 223). There was no significant difference in the amount approved between those selected (KES 42,302.2 [USD ≈ 290], SD = KES 33,630.1 [USD ≈ 230]) and those not selected (KES 42,886.8 [USD ≈ 294], SD = KES 31,889.9 [USD ≈ 218]) ($p = 0.5$), indicating that the amount approved by HELB may not strongly influence programme selection.

The applicants had an average annualised LEAP loan ask of KES 162,432.7 (USD 1,249.48, SD = KES 87,236.1 / USD 671.05). Notably, those selected had a significantly higher annualised loan ask (KES 173,715.0 / USD 1,336.27, SD = KES 81,307.2 / USD 625.44) compared to those not selected (KES 153,136.5 / USD 1,178.74, SD = KES 90,818.5 / USD 698.60) ($p < 0.001$). This suggests that individuals with higher loan amounts were likelier to be approved for LEAP loans.

Around 44.9% of applicants received high school financing support. Notably, a higher percentage of those not selected (53.1%) received high school financing support compared to those selected (34.9%) ($p < 0.001$). This finding indicates that prior high school financing support was negatively associated with programme selection.

Approximately 17.9% of applicants reported being approved for high school bursaries. The percentage of individuals approved for bursaries was significantly higher among those not selected (23.4%) compared to those selected (11.2%) ($p < 0.001$), suggesting that bursary recipients had a lower likelihood of being selected for the programme.

Around 22.9% of applicants had taken commercial loans before applying for the LEAP programme. The percentage of individuals who had taken commercial loans did not significantly differ between those selected (21.9%) and those not selected (24.2%) ($p = 0.3$), suggesting that the presence of commercial loans did not strongly influence programme selection.

Approximately 20.1% of applicants reported ever defaulting on a loan. A higher percentage of those not selected (24.6%) reported ever defaulting compared to those selected (16.5%) ($p < 0.001$), indicating that having a history of loan defaults was negatively associated with programme selection.

Only 3.7% of applicants reported ever applying for LEAP funding. A higher percentage of those selected (5.1%) reported having applied for LEAP compared to those not selected (2.6%) ($p = 0.002$), suggesting that prior applications for LEAP had a positive and significant association with programme selection.

The distribution of applicants across different years of application showed significant variations between those selected and not selected ($p < 0.001$). Notably, the proportions differed significantly for all years except for 2020. Similarly, the distribution of applicants across different cohorts indicated significant differences between those selected and not selected ($p < 0.001$), with Cohorts 2, 3, and 4 having substantially higher percentages of those selected compared to those not selected.

Multivariate Analysis: Logistic Regression

The previous sections, particularly in **Tables 1 to 3**, examined the individual relationships between each factor in isolation and programme selection (bivariate analysis), uncovering factors associated with LEAP programme selection. While bivariate analysis is insightful, it has its limitations. It focuses solely on isolated associations, potentially overlooking confounding effects when multiple characteristics interact to influence the outcome. Therefore, to unveil the true independent contributions of each characteristic while accounting for potential interdependencies, we conducted multivariate logistic regression analyses. The results of these analyses, which provide both adjusted odds ratios and their associated 95% confidence intervals, are presented in **Table 4.**

Both adjusted and unadjusted odds ratios (OR) are provided to illustrate the effect of confounding variables on the association between those selected and rejected for the LEAP fellowship. Unadjusted OR are calculated without controlling for any other factors, while adjusted OR are calculated after accounting for potential confounders. A comparison of unadjusted and adjusted OR reveals how much confounders influence the estimated effect size and direction. For example, the unadjusted OR being significantly different from the adjusted OR suggests the presence of a strong confounding effect. If the unadjusted and adjusted OR are similar, the confounding effect is likely to be minimal.

To interpret the odds ratios, we consider the associations between the variables and the likelihood of being selected for LEAP. The odds ratio being exactly 1 suggests that no association between the variable and programme selection exists, meaning that the factor being studied does not impact the likelihood of being chosen for the programme. An odds ratio greater than 1 indicates that the event of being selected is more likely to occur, exhibiting a positive association between the factor and programme selection. Conversely, an odds ratio lower than 1 suggests that the event of being selected is less likely to happen, indicating a negative association between the factor and programme selection. The closer the odds ratio is to 0, the stronger the inverse association.
For instance, in our interpretation of variable "Age," the unadjusted OR of 0.95 (95% CI: 0.92, 0.97) implies that for every one-year increase in age, the chance of being selected for the LEAP programme decreases by approximately 5%. However, after considering other factors in the adjusted odds ratio, such as gender, marital status, and education level, this relationship weakens and becomes statistically insignificant (adjusted OR = 0.97, 95% CI: 0.93, 1.01, $p = 0.10$), suggesting that age alone may not be a significant predictor of being selected for the programme.

Another example is the variable "Have Children." Initially, the unadjusted OR was 0.88 (95% CI: 0.62, 1.23) with a p-value of

0.4, suggesting that individuals with children had 12% worse odds of being selected for the LEAP programme. However, once other factors, such as age, gender, education, and employment history, were taken into account, the adjusted OR became 2.12 (95% CI: 1.27, 3.58) with a p-value of 0.004, indicating that having children positively influenced the likelihood of being selected for LEAP when other factors were considered. This suggests that individuals with children have an approximately 112% higher likelihood of being selected for the LEAP programme compared to those without children when considering other factors. However, after incorporating an interaction term (Gender x Marital Status x Having Children) into the model, this effect became insignificant, prompting further analyses of gender dynamics. The findings from this sensitivity analysis are presented in the next section, "Sensitivity Analysis".

The unadjusted odds ratio for gender (participants identifying as women) was 0.89 (95% CI: 0.72, 1.12, p = 0.3), indicating a nonsignificant decrease in the likelihood of them being selected compared to participants identifying as men. After adjusting for other factors, the odds ratio increased to 1.08 (95% CI: 0.83, 1.39, p = 0.6), suggesting no significant association. This implies that gender, specifically identifying as a woman, did not significantly influence the likelihood of selection into the LEAP programme. The likelihood of selection for participants identifying as women increased by approximately 8% after adjustment, although this effect was not statistically significant. Incorporating an interaction term (Gender × Marital Status × Having Children) into the model increased the effect fourfold, though it remained nonsignificant. The sensitivity analysis in the following section explores this phenomenon in greater detail.

Being single was significantly associated with a higher likelihood of programme selection in the unadjusted model (OR: 1.67, 95% CI: 1.06, 2.68, p = 0.029). However, after adjusting for other factors, the adjusted odds ratio became 1.60 (95% CI: 0.83, 3.12, p = 0.2) and lost statistical significance. This indicates that while being single initially appeared to be a predictor of programme selection, it might

Table 4. Logistic Regression – Predictors of Selection for the LEAP Tertiary Education Lending Scheme in Kenya

	Unadjusted (Bivariate) Estimates			Adjusted (Multivariate) Estimates			Adjusted (with Interaction Terms)		
Characteristic	**OR[1]**	**95% CI[1]**	**p-value**	**OR[1]**	**95% CI[1]**	**p-value**	**OR[1]**	**95% CI[1]**	**p-value**
Age	0.95	(0.92, 0.97)	<0.001	0.97	(0.93, 1.01)	0.10	0.97	(0.93, 1.01)	0.10
Gender: Female	0.89	(0.72, 1.12)	0.3	1.08	(0.83, 1.39)	0.6	4.32	(0.10, 204)	0.4
Marital Status: Single	**1.67**	(1.06, 2.68)	**0.029**	1.60	(0.83, 3.12)	0.2	4.64	(0.47, 116)	0.2
Have Children	0.88	(0.62, 1.23)	0.4	**2.12**	(1.27, 3.58)	**0.004**	6.48	(0.59, 172)	0.2
Disabled	1.05	(0.73, 1.50)	0.8	1.21	(0.82, 1.80)	0.3	1.21	(0.82, 1.79)	0.3
Below Poverty Line	0.98	(0.69, 1.39)	>0.9	0.78	(0.53, 1.14)	0.2	0.77	(0.52, 1.13)	0.2
Have a Mobile Money Account	1.22	(0.83, 1.79)	0.3	1.50	(0.98, 2.29)	0.059	1.50	(0.98, 2.29)	0.060
Employed in the Last Three Years	1.15	(0.90, 1.47)	0.3	1.22	(0.91, 1.65)	0.2	1.22	(0.90, 1.66)	0.2
Have a Bank Account	**1.64**	(1.27, 2.11)	**<0.001**	1.22	(0.91, 1.62)	0.2	1.22	(0.91, 1.63)	0.2
Institution									
TVET	—			—			—		
University	**1.94**	(1.56, 2.41)	**<0.001**	0.69	(0.45, 1.06)	0.092	0.69	(0.45, 1.06)	0.089
Highschool Grade[2]									
A	—			—			—		
B	**0.49**	(0.39, 0.61)	**<0.001**	**0.52**	(0.39, 0.68)	**<0.001**	**0.51**	(0.39, 0.67)	**<0.001**
C/D	**0.26**	(0.18, 0.35)	**<0.001**	**0.29**	(0.19, 0.44)	**<0.001**	**0.29**	(0.19, 0.44)	**<0.001**

Table 4. Logistic Regression – Predictors of Selection for the LEAP Tertiary Education Lending Scheme in Kenya (Continued)

	Unadjusted (Bivariate) Estimates			Adjusted (Multivariate) Estimates			Adjusted (with Interaction Terms)		
Characteristic	**OR[1]**	**95% CI[1]**	**p-value**	**OR[1]**	**95% CI[1]**	**p-value**	**OR[1]**	**95% CI[1]**	**p-value**
First Bachelor's Degree									
No	—			—			—		
Yes	1.31	(0.97, 1.75)	0.076	0.71	(0.47, 1.07)	0.10	0.72	(0.48, 1.09)	0.12
Academic Year									
Not Started	—			—			—		
Year 1	**1.94**	(1.39, 2.73)	**<0.001**	**3.21**	(2.13, 4.91)	**<0.001**	**3.22**	(2.13, 4.91)	**<0.001**
Year 2	**2.48**	(1.76, 3.52)	**<0.001**	**4.58**	(2.93, 7.24)	**<0.001**	**4.60**	(2.95, 7.29)	**<0.001**
Year 3	**1.96**	(1.34, 2.88)	**<0.001**	**4.32**	(2.58, 7.33)	**<0.001**	**4.33**	(2.59, 7.35)	**<0.001**
Year 4	1.38	(0.80, 2.39)	0.2	**2.69**	(1.37, 5.34)	**0.004**	**2.69**	(1.37, 5.34)	**0.004**
Year 5/6	1.83	(0.78, 4.37)	0.2	**3.72**	(1.43, 9.90)	**0.007**	**3.75**	(1.43, 9.97)	**0.007**
Retake Units	**0.46**	(0.37, 0.57)	**<0.001**	**0.50**	(0.37, 0.69)	**<0.001**	**0.50**	(0.37, 0.69)	**<0.001**
Approved for Bursaries	0.79	(0.52, 1.20)	0.3	0.76	(0.48, 1.21)	0.3	0.76	(0.48, 1.21)	0.2
Approved for HELB	**1.50**	(1.17, 1.92)	**0.001**	1.27	(0.96, 1.67)	0.092	1.26	(0.96, 1.67)	0.094
Ever Defaulted on a Loan	0.93	(0.73, 1.19)	0.6	0.76	(0.58, 1.00)	0.050	0.76	(0.58, 1.00)	0.050
Ever Applied for LEAP	1.32	(0.84, 2.10)	0.2	0.72	(0.43, 1.22)	0.2	0.72	(0.43, 1.21)	0.2
Annualised LEAP Loan Ask	1.00	(1.00, 1.00)	0.2	1.00	(1.00, 1.00)	0.8	1.00	(1.00, 1.00)	0.8
Cohort									
Cohort 1	—			—			—		
Cohort 2	0.23	(0.01, 1.22)	0.2	0.14	(0.01, 0.76)	0.063	0.14	(0.01, 0.76)	0.064
Cohort 3	0.15	(0.01, 0.80)	0.071	**0.11**	(0.01, 0.59)	**0.037**	**0.11**	(0.01, 0.60)	**0.037**
Cohort 4	**0.10**	(0.01, 0.51)	**0.026**	**0.07**	(0.00, 0.35)	**0.010**	**0.07**	(0.00, 0.36)	**0.010**
Gender: Female X Marital Status: Single							0.25	(0.01, 10.9)	0.4
Marital Status: Single X Have Children							0.24	(0.00, 11.7)	0.4
Marital Status: Single X Have Children							0.37	(0.01, 4.98)	0.5
Gender: Female X Marital Status: Single X Have Children							3.25	(0.06, 200)	0.6

1. OR = odds ratio, CI = confidence interval

2. Grades A, B, C, and D generally correspond to percentage ranges of 80–100% (A), 60–79% (B), 40–59% (C), and 30–39% (D), though these thresholds are adjusted annually by KNEC based on national performance trends (KNEC, n.d.).

not play a significant role once other variables are considered, with the likelihood of selection decreasing by approximately 40% for single individuals after adjusting for other covariates.

Disability did not have a significant association with programme selection in both the unadjusted (OR: 1.05, 95% CI: 0.73, 1.50, p = 0.8) and adjusted models (OR: 1.21, 95% CI: 0.82, 1.80, p = 0.3). This suggests that disability alone may not be a strong predictor of selection for the LEAP programme, irrespective of other variables.

Living below the poverty line was not significantly associated with programme selection in either the unadjusted model (OR: 0.98, 95% CI: 0.69, 1.39, p > 0.9) or the adjusted model (OR: 0.78, 95% CI: 0.53, 1.14, p = 0.2). This indicates that poverty status, when considered in isolation, may not significantly influence the likelihood of being selected for the programme regardless of other influential factors.

Having a mobile money account did not exhibit a significant association with programme selection in both the unadjusted (OR: 1.22, 95% CI: 0.83, 1.79, p = 0.3) and adjusted models (OR: 1.50, 95% CI: 0.98, 2.29, p = 0.059). This suggests that having a mobile money account alone was not a strong predictor of programme selection, irrespective of other variables.

Programme selection was not significantly associated with employment status in the unadjusted (OR: 1.15, 95% CI: 0.90, 1.47, p = 0.3) and adjusted models (OR: 1.22, 95% CI: 0.91, 1.65, p = 0.2). This indicates that employment status alone did not significantly influence the likelihood of being selected for the LEAP programme, regardless of other factors.

Initially, having a bank account was significantly associated with a higher likelihood of programme selection (Unadjusted OR: 1.64, 95% CI: 1.27, 2.11, p < 0.001). However, after adjusting for other factors, this association became statistically insignificant (Adjusted OR: 1.22, 95% CI: 0.91, 1.62, p = 0.2), suggesting that having a bank account alone was not a strong predictor of programme selection when other influential factors are considered. This variable was found to induce an approximately 23% reduction in likelihood of selection after adjusting for other covariates.

Enrolment in a university showed a significant association with a higher likelihood of programme selection (Unadjusted OR: 1.94, 95% CI: 1.56, 2.41, p < 0.001). However, after adjusting for other factors, this association lost statistical significance (Adjusted OR: 0.69, 95% CI: 0.45, 1.06, p = 0.092). This suggests that the type of institution alone was not a significant predictor of programme selection, regardless of other variables.

High school grades were positively associated with likelihood of programme selection. In the unadjusted model, Grades B (OR: 0.49, 95% CI: 0.39, 0.61, p < 0.001) and C/D (OR: 0.26, 95% CI: 0.18, 0.35, p < 0.001) were associated with a lower likelihood of being selected compared to Grade A. This trend continued after adjusting for other factors, where Grades B (OR: 0.52, 95% CI: 0.39, 0.68, p < 0.001) and C/D (OR: 0.29, 95% CI: 0.19, 0.44, p < 0.001) maintained significant associations with a lower likelihood of programme selection compared to Grade A.

Possessing a bachelor's degree prior to application did not show a significant association with programme selection in either the unadjusted model (OR: 1.31, 95% CI: 0.97, 1.75, p = 0.076) or the adjusted model (OR: 0.71, 95% CI: 0.47, 1.07, p = 0.10). This indicates that possessing a bachelor's degree alone did not significantly influence the likelihood of being selected for the programme, regardless of other factors.

The applicant's academic year was significantly associated with the likelihood of selection into the LEAP programme. Compared to those who had not yet started their academic studies at the time of application, applicants in all other academic years had significantly higher odds of being selected in both the unadjusted and adjusted models. Specifically, Year 1 (Adjusted OR: 3.21, 95% CI: 2.13–4.91, p < 0.001), Year 2 (OR: 4.58, 95% CI: 2.93–7.24, p < 0.001), Year 3 (OR: 4.32, 95% CI: 2.58–7.33, p < 0.001), Year 4 (OR: 2.69, 95% CI: 1.37–5.34, p = 0.004), and Year 5/6 (OR: 3.72, 95% CI: 1.43–9.90, p < 0.01) were all associated with significantly higher likelihood of programme selection. This translates to an increased likelihood of selection of approximately 221% for Year 1, 358% for Year 2, 332% for Year 3, 169% for Year 4, and 272% for Years 5/6, relative to applicants who had not yet enrolled in tertiary education. These findings suggest that academic progression is a strong predictor of selection, possibly reflecting the programme's focus on learners nearing graduation and workforce entry.

The unadjusted odds ratio for retaking units was 0.46 (95% CI: 0.37, 0.57, p < 0.001), indicating that individuals who retake units have a significantly lower likelihood of being selected for the LEAP programme. After adjusting for other factors, the odds ratio was 0.50 (95% CI: 0.37, 0.69, p < 0.001), still showing a significant negative association. This suggests that retaking units negatively affects the likelihood of programme selection, with approximately a 50% reduction in the likelihood of being selected for those who retake units, irrespective of other variables.

Being approved for bursaries was not significantly associated with programme selection in both the unadjusted (OR: 0.79, 95% CI: 0.52, 1.20, p = 0.3) and adjusted models (OR: 0.76, 95% CI: 0.48, 1.21, p = 0.3). This indicates that approval for bursaries alone accounted for an approximately 24% reduction in likelihood of selection after adjusting for other covariates; however, this association was not statistically significant.

Being approved for HELB loans showed a significant association with a higher likelihood of programme selection (Unadjusted OR: 1.50, 95% CI: 1.17, 1.92, p = 0.001). However, after adjusting for other factors, this association became statistically insignificant (Adjusted OR: 1.27, 95% CI: 0.96, 1.67, p = 0.092), suggesting that HELB loan approval alone, which resulted in an approximately 23% reduction in likelihood of selection after adjusting for other covariates, was not a strong predictor of programme selection when considering other influential factors.

Having ever defaulted on a loan did not exhibit a significant association with programme selection in both the unadjusted (OR: 0.93, 95% CI: 0.73, 1.19, p = 0.6) and adjusted models (OR: 0.76, 95% CI: 0.58, 1.00, p = 0.050), suggesting that having a loan default history alone, which yielded an approximately 24% reduction in likelihood of selection after adjusting for other covariates, did not significantly influence the likelihood of being selected for the programme regardless of other factors.

The unadjusted odds ratio for individuals who had applied for LEAP prior to the present application was 1.32 (95% CI: 0.84, 2.10, p = 0.2), suggesting the lack of a significant association with programme selection. Similarly, after adjusting for other covariates, the odds ratio was 0.72 (95% CI: 0.43, 1.22, p = 0.2), indicating no significant relationship. This indicates that whether an individual has previously applied for LEAP did not significantly influence the likelihood of being selected for the programme irrespective of other variables.

Annualised LEAP loan ask did not exhibit a significant association with programme selection in either the unadjusted (OR: 1.00, 95% CI: 1.00, 1.00, p = 0.2) and adjusted model (OR: 1.00, 95% CI: 1.00, 1.00, p = 0.8). This indicates that the loan amount requested through LEAP did not significantly influence the likelihood of being selected for the programme, regardless of other factors.

The applicant's cohort was significantly associated with the likelihood of programme selection. In the unadjusted model, applicants belonging to Cohorts 2, 3, and 4 showed significantly lower likelihoods of being selected for the LEAP programme compared to Cohort 1 (the pre–COVID-19 cohort). After adjusting for other factors, only Cohorts 3 and 4 remained significantly associated with a lower likelihood of programme selection compared to Cohort 1. This suggests that cohort was an important factor in determining the likelihood of being chosen for the LEAP programme, with reductions in the likelihood of selection of approximately 89%, and 93% for Cohorts 3 and 4, respectively, compared to Cohort 1 after adjusting for other variables.

In summary, the logistic regression analyses revealed that several factors had varying degrees of association with the likelihood of being selected for the LEAP programme. Some variables, such as gender, having a disability, living below the poverty line, having a mobile money account, employment history, being approved for bursaries, and having ever defaulted on a loan, did not exhibit significant associations with programme selection. On the other hand, characteristics such as high school grades, having children, academic year, having retaken units, having defaulted on a previous loan, and cohort of application were significant predictors for selection. The study's findings highlight the importance of considering multiple factors together to better understand the selection process and enhance the effectiveness of the LEAP programme in Kenya.

4

SENSITIVITY ANALYSIS

Gender Sensitivity Analysis

This sensitivity analysis examines predictors of selection for the LEAP programme and focuses on gender differences. **Table 5** presents the multivariate adjusted odds ratios (OR) for female and male applicants.

Age did not significantly influence the likelihood of selection for either gender, with adjusted OR of 0.97 (95% CI: 0.91, 1.04, p = 0.4) for females and 0.96 (95% CI: 0.91, 1.01, p = 0.12) for males. Marital status (single) also showed no significant effect, with an OR of 1.41 (95% CI: 0.57, 3.60, p = 0.5) for females and 2.09 (95% CI: 0.73, 6.35, p = 0.2) for males.

Having children was a significant predictor for male applicants but not for female applicants. Female applicants had an OR of 1.78 (95% CI: 0.89, 3.63, p = 0.11), whereas male applicants had an OR of 2.89 (95% CI: 1.21, 7.48, p = 0.022). This discrepancy may indicate an implicit difference in how male and female applicants with children are assessed during the selection process. Disability status did not significantly affect selection for either gender, with ORs of 1.13 (95% CI: 0.57, 2.23, p = 0.7) for female applicants and 1.20 (95% CI: 0.73, 1.98, p = 0.5) for male applicants.

Living below the poverty line was not a significant predictor for either gender, with ORs of 0.71 (95% CI: 0.37, 1.31, p = 0.3) for female applicants and 0.80 (95% CI: 0.48, 1.33, p = 0.4) for male applicants. Having a mobile money account was significant for male applicants (OR: 1.76, 95% CI: 1.03, 3.00, p = 0.038) but not for female applicants (OR: 1.19, 95% CI: 0.55, 2.57, p = 0.7). This suggests that gender-specific differences in how financial behaviours and resources are considered in the selection process for the LEAP programme may exist. Employment history did not significantly affect selection for either gender, with ORs of 1.24 (95% CI: 0.69, 2.24, p = 0.5) for female applicants and 1.29 (95% CI: 0.90, 1.87, p = 0.2) for male applicants.

Having a bank account was not a significant predictor for either gender, with ORs of 1.04 (95% CI: 0.63, 1.70, p = 0.9) for female applicants and 1.30 (95% CI: 0.89, 1.89, p = 0.2) for male applicants. Institution type (TVET versus university) was not a significant factor, with ORs for university attendance of 0.53 (95% CI: 0.23, 1.20, p = 0.13) for female applicants and 0.62 (95% CI: 0.36, 1.07, p = 0.089) for male applicants.

High school grades significantly influenced selection for both genders, with lower grades associated with lower odds of selection. ORs for female applicants were 0.34 (95% CI: 0.18, 0.61, p < 0.001) for Grade B, and 0.36 (95% CI: 0.17, 0.76, p = 0.008) for Grades C/D. For male applicants, the ORs were 0.59 (95% CI: 0.43, 0.80, p < 0.001) for Grade B, and 0.17 (95% CI: 0.11, 0.29, p < 0.001) for Grades C/D.

Having a bachelor's degree at the time of application was not a significant predictor for either gender, with ORs of 0.62 (95% CI: 0.31, 1.21, p = 0.2) for female applicants and 1.00 (95% CI: 0.57, 1.75, p > 0.9) for male applicants. Academic year significantly influenced selection for both genders, with higher years being associated with higher odds of selection. ORs for female applicants were 4.76 (95% CI: 2.12, 11.4, p < 0.001) for Year 1, 6.05 (95% CI: 2.55, 15.4, p < 0.001) for Year 2, 7.39 (95% CI: 2.70, 21.8, p < 0.001) for Year 3, 3.70 (95% CI: 0.86, 16.3, p = 0.079) for Year 4, and 8.47 (95% CI: 0.65, 209, p = 0.11) for Years 5/6. Conversely, for male applicants, the ORs were 2.68 (95% CI: 1.62, 4.49, p < 0.001) for Year 1, 4.16 (95% CI: 2.42, 7.24, p < 0.001) for Year 2, 3.42 (95% CI: 1.85, 6.42, p < 0.001) for Year 3, 2.37 (95% CI: 1.08, 5.27, p = 0.032) for Year 4, and 3.07 (95% CI: 1.06, 9.08, p = 0.040) for Years 5/6.

Retaking units was not a significant predictor for female applicants (OR = 0.56, 95% CI: 0.29, 1.08, p = 0.087) but was significant for male applicants (OR = 0.46, 95% CI: 0.32, 0.67, p < 0.001). Approval for bursaries was not significant for either gender, with ORs of 1.18 (95% CI: 0.46, 3.10, p = 0.7) for female applicants and 0.65 (95% CI: 0.38, 1.11, p = 0.11) for male applicants. HELB loan approval was also not significant for both genders, with ORs of 1.23 (95% CI: 0.67, 2.26, p = 0.5) for female applicants and 1.25 (95% CI: 0.92, 1.72, p = 0.2) for male applicants.

Loan default history was not significant for female applicants (OR = 0.99, 95% CI: 0.53, 1.85, p > 0.9), although it was significant for male applicants (OR = 0.69, 95% CI: 0.51, 0.94, p = 0.019). This discrepancy may imply that financial reliability, as evidenced by past loan defaults, is weighted more heavily against male applicants than female applicants. This could reflect the perception that financial prudence and reliability are more critical for male applicants or that male applicants are more scrutinised for financial behaviour during the selection process than are female applicants. Having previously applied for LEAP loans was not significant for either gender, with ORs of 1.67 (95% CI: 0.40, 7.65, p = 0.5) for female applicants and 0.68 (95% CI: 0.38, 1.20, p = 0.2) for male applicants. The amount requested for the LEAP loan was not significant for either gender, with an OR of 1.00 for both female applicants and male applicants (95% CI: 1.00, 1.00, p = 0.8).

Cohort membership was not a significant predictor of selection for either gender. Among female applicants, the odds ratios for selection relative to Cohort 1 were as follows: Cohort 2 – OR: 0.40 (95% CI: 0.02–2.76, p = 0.4), Cohort 3 – OR: 0.11 (95% CI: 0.01–0.76, p = 0.054), and Cohort 4 – OR: 0.06 (95% CI: 0.00–0.38, p = 0.012), indicating a statistically significant decline in likelihood of selection for later cohorts, particularly Cohort 4. For male applicants, the odds ratio for all cohorts was 0, with p-values greater than 0.9, indicating no significant association between cohort membership and likelihood of selection.

Table 5. Gender Sensitivity Analysis – Predictors of Selection for the LEAP Tertiary Education Lending Scheme in Kenya

	Female Adjusted (Multivariate) Estimates			Male Adjusted (Multivariate) Estimates		
Characteristic	**OR[1]**	**95% CI[1]**	**p-value**	**OR[1]**	**95% CI[1]**	**p-value**
Age	0.97	(0.91, 1.04)	0.4	0.96	(0.91, 1.01)	0.12
Marital Status: Single	1.41	(0.57, 3.60)	0.5	2.09	(0.73, 6.35)	0.2
Have Children	1.78	(0.89, 3.63)	0.11	**2.89**	(1.21, 7.48)	**0.022**
Disabled	1.13	(0.57, 2.23)	0.7	1.20	(0.73, 1.98)	0.5
Below Poverty Line	0.71	(0.37, 1.31)	0.3	0.80	(0.48, 1.33)	0.4
Have a Mobile Money Account	1.19	(0.55, 2.57)	0.7	**1.76**	(1.03, 3.00)	**0.038**
Employed in the Last Three Years	1.24	(0.69, 2.24)	0.5	1.29	(0.90, 1.87)	0.2
Have a Bank Account	1.04	(0.63, 1.70)	0.9	1.30	(0.89, 1.89)	0.2
Institution						
TVET	—			—		
University	0.53	(0.23, 1.20)	0.13	0.62	(0.36, 1.07)	0.089
Highschool Grade						
A	—			—		
B	**0.34**	(0.18, 0.61)	**<0.001**	**0.59**	(0.43, 0.80)	**<0.001**
C/D	**0.36**	(0.17, 0.76)	**0.008**	**0.17**	(0.11, 0.29)	**<0.001**
First Bachelor's Degree						
No	—			—		
Yes	0.62	(0.31, 1.21)	0.2	1.00	(0.57, 1.75)	>0.9
Academic Year						
Not Started	—			—		
Year 1	**4.76**	(2.12, 11.4)	**<0.001**	**2.68**	(1.62, 4.49)	**<0.001**
Year 2	**6.05**	(2.55, 15.4)	**<0.001**	**4.16**	(2.42, 7.24)	**<0.001**
Year 3	**7.39**	(2.70, 21.8)	**<0.001**	**3.42**	(1.85, 6.42)	**<0.001**
Year 4	3.70	(0.86, 16.3)	0.079	**2.37**	(1.08, 5.27)	**0.032**
Year 5/6	8.47	(0.65, 209)	0.11	**3.07**	(1.06, 9.08)	**0.040**
Retake Units	0.56	(0.29, 1.08)	0.087	**0.46**	(0.32, 0.67)	**<0.001**
Approved for Bursaries	1.18	(0.46, 3.10)	0.7	0.65	(0.38, 1.11)	0.11
Approved for HELB	1.23	(0.67, 2.26)	0.5	1.25	(0.92, 1.72)	0.2
Ever-Defaulted Loan	0.99	(0.53, 1.85)	>0.9	**0.69**	(0.51, 0.94)	**0.019**
Ever Applied for LEAP	1.67	(0.40, 7.65)	0.5	0.68	(0.38, 1.20)	0.2
Annualised LEAP Loan Ask	1.00	(1.00, 1.00)	0.8	1.00	(1.00, 1.00)	0.8
Cohort						
Cohort 1	—			—		
Cohort 2	0.40	(0.02, 2.76)	0.4	0.00		>0.9
Cohort 3	0.11	(0.01, 0.76)	0.054	0.00		>0.9
Cohort 4	**0.06**	(0.00, 0.38)	**0.012**	0.00		>0.9

1. 1OR = odds ratio, CI = confidence interval

5

DISCUSSION

This study examined the determinants of selection into a private social lending initiative aimed at improving equitable access to tertiary education in Kenya. The work's analysis used multivariate logistic regression to identify which applicant characteristics were associated with selection and how these patterns may be related to LEAP's goals of achieving social impact and financial viability through a revolving loan fund.

The study's findings suggest that LEAP's selection process prioritises academic performance and progression over conventional markers of disadvantage. While the programme does reflect elements of equity-oriented design, its operational model appears more strongly aligned with the risk reduction and sustainability goals of its revolving fund. The centrality of high school grades and academic year in the selection process underscores its strategy of favouring students who have demonstrated the potential to complete their studies and repay their loans.

Academic performance functions as a proxy for future employability and repayment capacity within LEAP's selection process. Applicants with higher grades were significantly more likely to be selected, reflecting the programme's strategy of prioritising candidates perceived as having stronger potential for job placement and loan repayment. However, reliance on academic performance as a proxy for repayment capacity may inadvertently disadvantage students from underresourced schools or marginalised backgrounds, who often underperform due to systemic inequalities. Less than 20% of high school candidates in Kenya attained grades of C+ (the minimum grade for entry into university) or higher (KNEC, 2019), yet 88% of LEAP beneficiaries scored either an A or B, highlighting the programme's selective emphasis on top academic performers and reinforcing concerns about equitable access.

Another consistent and significant predictor of selection was academic year, with students in their second or third years of study having significantly higher odds of being selected than those who had not yet commenced their academic programmes. Compared to first-time applicants who had not started their academic year, second-year students were 358% more likely to be selected, and third-year students were 332% more likely. This seems to plausibly align with the programme's internal logic: Selecting students who have already demonstrated academic progression may reduce the risk of noncompletion and enhance the likelihood of post-graduation repayment. Given the programme's revolving fund, in which repayments support future cohorts, this approach can contribute to programme sustainability while supporting students at risk of dropping out due to financial hardship.

Our interpretation, which is based on programme documentation and our internal interviews, is that LEAP made a strategic choice to prioritise later-year students as a deliberate risk-mitigation strategy. By selecting students who had already progressed in their studies, the programme gained access to more reliable indicators of academic performance, such as GPA, retake units, and deferral history, which could be used to assess repayment risk and future employability. This approach allowed LEAP to make data-informed decisions and derisk its revolving loan fund, thereby reducing the likelihood of selecting students who might default after graduation or struggle with job placement.

While this strategy may inhibit the programme's role in enabling initial access to tertiary education, it simultaneously advances another dimension of equity: reducing the risk of dropout due to financial hardship. In Kenya, tertiary dropout rates are a persistent challenge, particularly for low-income students affected by delayed fee payments and limited financial support (Nyambega et al., 2020). Financial barriers can force students to skip meals, defer semesters, or drop out entirely (The Kenya Times, 2024). By prioritising students who have already progressed in their studies, LEAP helps reduce dropout risk and sustain educational pathways, thus advancing equity in tertiary education.

Our findings indicate that applicants who had previously retaken academic units had a significantly lower likelihood of selection. This suggests that the selection process may penalise applicants with inconsistent academic records even when such setbacks may be attributable to external challenges. While this may reflect a pragmatic concern for programme sustainability, it raises questions about how the selection process balances academic risk with broader inclusion goals.

At the same time, the analysis highlights potential tensions in balancing repayment-linked criteria with broader equity goals. While applicants with children were more likely to be selected, other indicators of social disadvantage, including gender, disability, and poverty-line status, were not statistically significant after adjustment. This may be caused by the interdependence of equity variables with academic and financial indicators or by limitations in the operationalisation of these variables within the dataset. Notably, LEAP employs an equity scoring algorithm that integrates multiple socio-economic indicators into a composite index to inform selection decisions. This study relied on the World Bank's international poverty line as a simplified, standardised proxy for measuring socio-economic disadvantage (World Bank, 2022b). While this approach enables comparability with global benchmarks, it may not fully reflect the nuance of LEAP's internal equity assessment framework.

Lastly, significant differences were observed across cohorts, with later cohorts (especially those active during the COVID-19 pandemic) exhibiting a markedly lower likelihood of selection. This may be attributable to funding constraints, operational delays, or shifts in programme priorities during the pandemic. The cohort effect underscores the importance of situating selection outcomes within the broader institutional and external contexts in which the programme operates.

Taken together, the multivariate results suggest that LEAP's selection process reflects a dual emphasis on supporting academically advanced students with demonstrated potential for completion and on achieving a degree of social inclusion, such as considering applicants with children. However, the exploratory nature of these findings, especially those relating to future employability and loan repayment, highlights the need for longitudinal data to evaluate the accuracy of these proxies in predicting real-world outcomes.

Interpretation in Light of LEAP's Objectives

When assessed against the LEAP programme's stated objectives, namely, expanding equitable access to tertiary education, supporting student retention and completion, and ensuring financial sustainability, the selection process demonstrates a pragmatic balanced alignment between social inclusion and investment risk.

Access and equity. The programme clearly attracted a diverse pool of applicants, including many students from vulnerable groups. However, after controlling for other factors, socio-demographic characteristics such as gender, poverty status, and disability were not deemed statistically significant predictors of selection. This suggests that while LEAP's equity mission influenced its design and outreach, these characteristics may not have significantly factored into final selection decisions. These equity indicators were potentially overshadowed by stronger predictors, such as academic standing.

Retention and completion. The strongest and most consistent predictors of selection were related to academic progression and performance. Students in more advanced academic years and those with better high school grades had a significantly higher likelihood of being selected over those in lower years and with worse grades. These findings indicate that LEAP prioritised applicants perceived as being likelier to complete their degrees successfully. This emphasis on academic continuation is consistent with a strategy aimed at maximising the programme's impact per dollar invested by reducing the risk of dropout among financially constrained students.

Financial sustainability. Although no direct data on employment outcomes or loan repayment were available at the time of analysis, the inclusion of academic performance and progression as selection criteria suggests an inferred programmatic logic: that students with stronger academic profiles may have greater future earning potential, and thus a higher likelihood of repaying their loans. This assumption draws from broader literature linking academic achievement with labour market outcomes, though it has not been empirically tested within the LEAP context. These variables therefore act as imperfect proxies for long-term financial returns. Consequently, the extent to which the current selection model aligns with and supports LEAP's revolving fund mechanism and broader sustainability goals remains uncertain in the absence of outcome data.

Implications for Practitioners and Policymakers

The study's findings represent important considerations for policymakers seeking to promote equitable and sustainable tertiary education financing. While LEAP's selection model is responsive to indicators of financial need, its overwhelming reliance on academic performance and progression suggests a cautious approach aimed at preserving loan repayment viability. This raises critical policy questions regarding the trade-off between safeguarding fund sustainability and broadening access to students from historically marginalised or academically disadvantaged backgrounds. If left unaddressed, the current emphasis on academic merit may reinforce existing structural inequalities, excluding students whose performance levels are hindered by systemic barriers rather than by their individual abilities.

Policymakers could encourage the adoption of more holistic and equity-sensitive selection criteria to enhance the inclusiveness of social lending schemes such as LEAP. This might involve complementing academic performance with contextual indicators such as school-level disadvantage and regional educational disparities. Additionally, selection frameworks could explicitly factor in life-course disruptions that disproportionately affect underrepresented groups, such as caregiving responsibilities, health conditions, or displacement. Policy guidelines that require or incentivise such practices across nonstate financing initiatives could help level the playing field and ensure that high-potential candidates are not excluded due to their circumstances.

Lastly, LEAP's prioritisation of second and third-year students suggests a broader policy consideration: what role should private social lenders play within the larger education financing architecture? While public actors remain the primary vehicle for enabling entry-level access, private schemes like LEAP complement this by providing top-up support for both tuition and non-tuition costs, such as food, transport, and laptops - critical needs often unmet in traditional financing packages. Rather than calling for a wholesale shift in public policy,

a more feasible and strategic approach may be to recognise and institutionalise the emerging synergies between state and non-state actors. Instruments such as risk-sharing, matching grants, default guarantees, or subsidised interest rates could help expand these partnerships, enabling social lending schemes to reach higher-risk students while still fulfilling both developmental and fiscal objectives.

Collectively, these findings highlight the need for policymakers to reflect on the role of private social lending schemes within the broader higher education financing ecosystem. While programmes like LEAP can support financially constrained students with strong academic potential, they are less suited to serve early-stage applicants or those facing deeper structural disadvantage. Such groups often fall outside the reach of both public loans and private equity-focused schemes. This underscores the need for a layered approach: combining public loans, private social finance, and targeted grants to ensure no group is left behind.

Limitations

Several limitations of this work must be acknowledged to contextualise the study's findings and guide future research. First, the analysis is limited to data from applicants who submitted complete LEAP applications between December 2019 and July 2022. As such, the study does not account for individuals who were eligible but did not apply. This introduces potential selection bias, particularly in terms of programme awareness, self-selection, and external barriers to access. For example, students who were aware of the LEAP programme but chose not to apply – perhaps due to a belief that they would not qualify, a lack of trust in private financing models, or digital access constraints – are not represented in the data. Moreover, the COVID-19 pandemic may have exacerbated disparities in access to information and application resources, particularly for students from rural or underserved communities, thereby affecting the number of students in the applicant pool during certain cohorts.

Second, the study does not include direct outcome data on post-selection variables such as academic completion, employment status, or loan repayment. While proxies such as high school performance and academic progression are used to assess potential financial returns (Hypothesis 2), these indicators are not validated predictors of long-term outcomes in this context. As such, the conclusions drawn from Hypothesis 2 should be interpreted as exploratory and hypothesis-generating rather than definitive.

Finally, while the logistic regression model adjusts for multiple covariates and explores interaction effects, causal inference is limited due to the dataset's observational and retrospective nature. Any associations identified should be interpreted as being correlational and not causal.

Despite these limitations, the study contributes significantly to the understanding of equity and selection within innovative financing models for higher education in low- and middle-income contexts. Future research could benefit from integrating qualitative interviews with non-applicants, tracking longitudinal outcomes, and gaining access to LEAP's proprietary selection rubric, which would enable deeper validation processes.

6

CONCLUSION

In conclusion, this study aims to identify predictors of selection into the LEAP programme in Kenya using logistic regression analysis. This research sheds light on the factors that significantly influence the likelihood of being chosen for the LEAP student loan fellowship. The study revealed several statistically significant key predictors of selection as well as variables that did not exhibit significant associations with programme selection. Overall, these findings contribute valuable insights into the selection process for the LEAP programme in Kenya. The significance of these findings extends beyond LEAP, as the findings shed light on the complex interplay of various factors influencing access to higher education financing, especially in the realm of innovative financing social lending schemes. Additional research containing comprehensive qualitative explorations through interviews and focus group discussions involving various LEAP stakeholders is required to further elucidate the intricacies of this multifaceted relationship. This qualitative dimension should result in a holistic perspective that enriches the current quantitative findings and fosters a more comprehensive understanding of the dynamics at play in the accessibility and equitability of LEAP financing.

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