To Leave No One Behind

Case Brief

Impact-Linked Payments:

A Model for Incentivising Service Delivery to Deaf Learners in Kenya

Authors

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Introduction

The Impact-Linked Fund for Education uses Impact-Linked Payments to support eKitabu, a for-profit social enterprise, in enhancing education for deaf and hard-of-hearing learners. This innovative financing tool enables development funders to provide funding to service providers such as eKitabu contingent on the service provider achieving specific educational outcomes. eKitabu plans to leverage this funding to boost enrolment and improve learning outcomes for deaf and hard-of-hearing learners in pre-primary and primary schools across Kenya.

eKitabu is an education technology (EdTech) company focused on making educational content more inclusive. It aims to improve learning content accessibility, interactivity and utilisation. eKitabu employs multiple modes of service delivery, including digitalising textbooks and storybooks in local languages (including local sign languages) and adding interactive features to learning materials. The company has a special focus on children who are deaf or hard-of-hearing and has developed educational content for local sign language acquisition in Kenya, Ethiopia, Rwanda, Malawi, Tanzania and Zanzibar. eKitabu has developed a programme to deliver solutions for learners by incorporating additional digital content, employing deaf teachers, training teachers and developing standardised assessment tool to monitor learner progress.

Roots of Impact and iGravity manage the Impact-Linked Finance Fund (ILFF), which in turn contains a ring-fenced[1] fund called the Impact-Linked Fund for Education that is financed by the Swiss Agency for Development and Cooperation (SDC) and the Jacobs Foundation. ILFF, through the Impact-Linked Fund for Education, aims to catalyse private investment in high-impact, market-based organisations to achieve inclusive and equitable education for vulnerable children and youth in the Middle East, North Africa and sub-Saharan Africa. Specifically, the ILFF employs three innovative financing instruments focused on incentivising organisations to improve their educational impact: Social Impact Incentives (SIINC), Impact-Linked Payments (ILP) and Impact-Linked Loans (ILL).

The ILFF is funding eKitabu through the ILP financing instrument and is offering USD 350,000 to support the company in scaling its activities to reach approximately 15 schools in Kenya over three years, with five new schools being added each year. To receive the ILP funding, eKitabu aims to reach 852 students from 2023 to 2026. Should eKitabu exceed this target (up to a maximum of 1,023 students reached), it will be rewarded with a higher incentive payment. The ILFF will make annual payments to eKitabu contingent on eKitabu achieving results on two metrics:

1. Increase the total number of deaf learners reached.
2. Improve the average learning gains of deaf learners.

Educational Challenges for Deaf Learners in Kenya

While the overall literacy rate in Kenya stood at 88.2% in 2022 (UNESCO, 2023), it has been well documented that the literacy rates of the deaf population are low (Wawire & Namunga, 2023). It is estimated that at least 1.2% of individuals with disabilities in sub-Saharan Africa are moderately or profoundly deaf (Piper et al., 2019). According to 2018 data from the Kenya Institute of

1. A ring-fenced fund is a financial structure in which funds are segregated and protected for a specific purpose to ensured they are not mixed with other funds or used for other purposes. This separation ensures that the funds are dedicated solely to their intended use, providing investors and stakeholders with transparency and security.

Special Education, approximately 267,000 people in Kenya aged 3–21 have some form of hearing impairment (MoE, 2018). Of these individuals, 229,000 are enrolled in school (MoE, 2018). Nearly half of these learners (110,140) are enrolled at the primary school level, with 97% enrolled in public schools (MoE, n.d.). In July 2021, the Kenyan government conducted re-entry learning assessments in primary grades following prolonged school closures during the COVID-19 pandemic. These assessments revealed that Grade 7 students had low achievement levels in Kenyan Sign Language, with only 16.82% reaching minimum proficiency in composition and 19.70% in language assessment (MoE, n.d.).

Kenyan Sign Language (KSL) was introduced as an optional subject in schools for deaf learners in 2004. In 2005, the then–Kenya Ministry of Education, Science and Technology released a report revealing that learners who were deaf or hard-of-hearing rarely scored above 50% in the Kenya Certificate of Primary Education (KCPE), making it difficult for them to enrol in secondary schools (Sambu, Otube, & Bunyasi, 2018). In 2023 and 2024, the Kenyan Sign Language Bills were introduced to Parliament to promote and develop KSL, provide for the inclusion of sign language in education curricula and facilitate the use of KSL in legal proceedings.

However, deaf learners continue to encounter numerous barriers to quality education, including schools not using KSL, a shortage of teachers for learners with hearing impairments, a lack of trained KSL teachers and insufficient teaching resources (Wawire & Namunga, 2023). Teachers and administrators in a study involving 359 students from five different schools observed that both teachers and students lack knowledge of KSL, have inadequate learning and teaching materials and possess limited vocabularies (Sambu, 2019). Generally, children who are deaf or hard-of-hearing attend integrated schools, special schools serving students with special needs, or special units within regular schools. A MoE 2018 survey revealed a lack of basic learning materials even in the 124 special schools for students with hearing impairments; only half of the schools possessed the KSL dictionary, 44% had teaching aides, 19% had a speech training kit and only 10% had a speech room or speech training unit. Additionally, only 58.9% of the teachers in these special schools were proficient in KSL. Furthermore, only 21.9% of the teachers in these schools specialised in educating children with hearing impairments, while just 7.7% of the teachers in integrated schools specialised in this area (MoE, 2018).

Recent research has found that these barriers significantly negatively affect the academic performance of children with hearing impairments (Wawire & Namunga, 2023; Wawire & Nick, 2019; Sambu, Otube, & Bunyasi, 2018). A 2017 survey of children with disabilities and special educational needs revealed that while a considerable number of these children attend school, the population also has a high dropout rate (MoE, 2018). Household poverty has been identified as a major barrier to the retention of children with disabilities in schools, as parents are often unable to afford certain school levies, high boarding fees and reading and writing materials. Additionally, some parents discontinue the education of children with disabilities during times of financial hardship in favour of their children without disabilities (MoE, 2018).

eKitabu Intervention for Learners Who Are Deaf or Hard-of-Hearing

eKitabu employs various digital platforms to distribute educational content that incorporates interactive features and is aligned with the national curricula. The EdTech company seeks to make educational content accessible and inclusive for low-income learners and has therefore tailored its content for students with special needs, including deaf and blind learners. Its platforms are available both online and offline and are provided to mainstream public schools, private schools and special needs schools across sub-Saharan Africa. Additionally, the company trains teachers to utilise its content in class and to apply its Sign Language Acquisition Assessment tool to their students.

eKitabu distributes content through multiple channels, including low-cost tablets, Android devices, web browsers, broadcast TV and audio formats. Furthermore, it has adapted its content for use on braille displays, making it accessible for learners who are blind. In 2017–2018, eKitabu began developing video content for deaf and hard-of-hearing learners that featured signers who are natively fluent in sign language.

The company works with various partners to increase accessibility. eKitabu sells its services to content publishers to digitise and distribute their textbooks and curricula to schools. Device and cloud service providers such as Microsoft and Samsung incorporate eKitabu's digital content into their products to sell their technology and services to schools. Additionally, it sells its products and services directly to schools and individuals. eKitabu has also collaborated with the Kenyan government, including the Information and Communications Technology (ICT) and Education ministries, to improve the availability and utilisation of its accessible digital content at public primary schools and universities.

Since its inception in 2012, eKitabu has reached 3,622 schools across Ethiopia, Kenya, Malawi, Rwanda and Tanzania. eKitabu is most present in Kenya, covering 3,391 schools that serve learners both with and without disabilities. In Kenya, public schools make up 85% of the schools reached by eKitabu, while 15% are private. eKitabu's support for deaf and hard-of-hearing learners in these countries is still in its early stages; of the 1,767 learners supported across 190 schools, 607 learners are located across 82 schools in Kenya. eKitabu is actively working on further enhancing its support for deaf education by providing additional teacher training and an adapted assessment tool. This programme, which is in its pilot phase, has been deployed to 40 students in Kenya.

In July 2023, eKitabu implemented the programme in three schools, involving 13 teachers and 160 students (Busara, 2023a). A survey conducted with teachers and headteachers in these schools indicated that teachers had begun engaging with eKitabu's content to teach deaf learners following their training in utilising the content and the assessment tool (Busara, 2023b). Further research will be carried out to evaluate the changes in student learning outcomes in these schools in the future.

Impact-Linked Payments: Financing Literacy Solutions for Deaf and Hard-of-Hearing Learners

eKitabu's business model consists of revenues from both public and private sector payers, including service contracts, grants and book sales in digital, audio and print formats. Over the years, they have received grant financing from several donors and partners, such as the International Publishers Association, All Children Reading (funded by USAID, World Vision and the Australian Government) and the Google Foundation. Additionally, they have secured investments from the UNICEF Innovation Fund and private investors such as Impact Ventures. A for-profit social enterprise, eKitabu sells its products and services to organisations such as Microsoft, Samsung, Sesame Workshop, Ubongo Kids, government entities, schools and individuals to generate cash flow for its operations. Through these diverse revenue streams, eKitabu achieved financial sustainability by 2022.

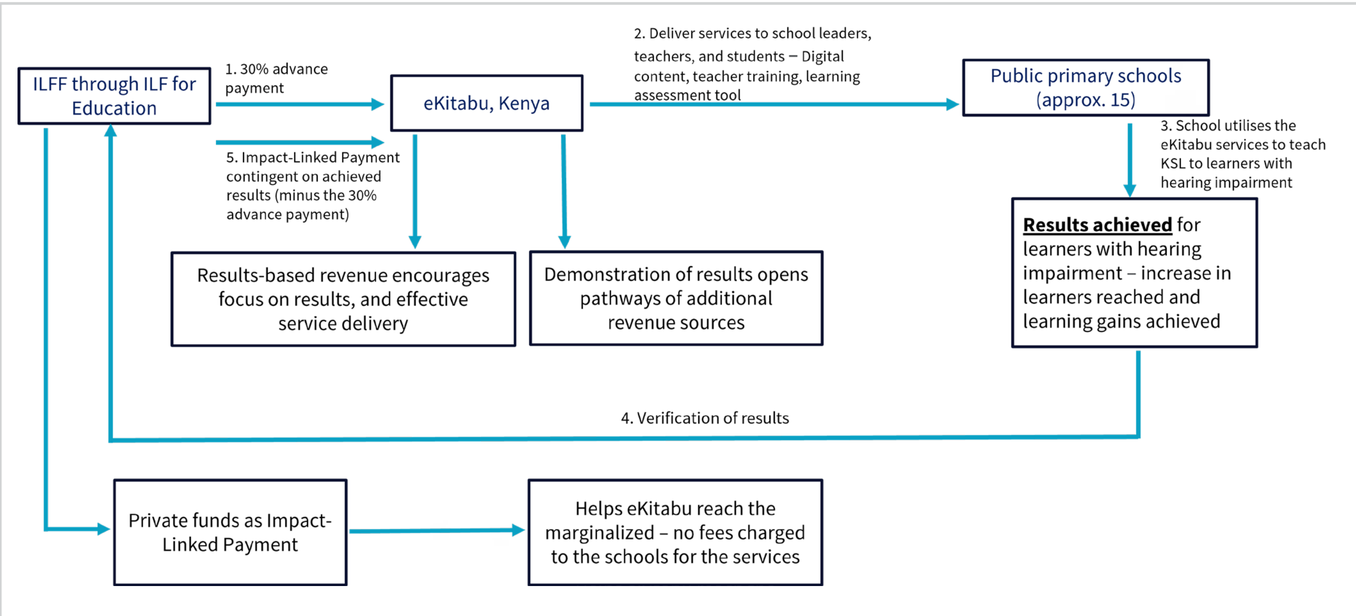
Given that the learning materials adapted for deaf and hard-of-hearing learners in lower- and middle-income countries are relatively new, eKitabu has invested its resources and resources from other partners (e.g. Kentalis International Foundation and All Children Reading) to develop and deliver content to learners. However, the costs associated with developing and delivering these services are often higher than developing and delivering the same for learners commonly referred to as "mainstream." While eKitabu aims to expand its support for deaf education in Kenya by expanding its reach from 40 learners to 852 over three years, the increased costs of these services may be unaffordable for many households and communities of deaf and hard-of-hearing learners. eKitabu has been working to improve efficiencies in its operations to reduce the costs of development and delivery to levels similar to, or even lower than, those of mainstream programmes. It aims to positively impact (i.e. improve learning for) a higher number of deaf and hard-of-hearing learners by increasing their access to and utilisation of the learning materials.

To generate revenue and attract funders interested in financing evidence-based solutions, eKitabu has initiated a pay-for-outcomes approach with the ILFF. ILFF will provide eKitabu ILP financing as a non-repayable fund in the amount of USD 350,000. This amount will be administered annually contingent on the company's achievement of predefined outcomes each year from 2023 to 2026. If the company attains results lower than the target, it will receive a reduced amount of funding for the year; however, if it achieves results higher than the target, payments will be capped at USD 350,000 by the end of the third year. To ensure that eKitabu has operational funding available to deliver services to schools before results are realised, the ILFF will allocate 30% of the estimated annual ILP to the company at the beginning of each year. These funds will be deducted from the annual payment at the end of the year based on the actual results achieved.

The ILFF's outcomes-based financing aims to incentivise eKitabu to reach a population of learners typically left behind due to financial hardship while also supporting the scaling of its operations. The advance payments made to eKitabu from the ILFF will help eKitabu meet its operational costs without imposing financial burdens related to its expansion activities. Additionally, these payments are designed to encourage eKitabu to produce additional data and evidence, as the funds will only be disbursed based on verified data. By expanding its reach and demonstrating the learning gains made through ILFF funding, eKitabu hopes to attract additional pay-for-outcomes funders in the future.

By financing eKitabu, the ILFF aims to achieve inclusive and

Figure 1: Expected Theory of Change for Impact-Linked Payments to eKitabu



Source: Authors

equitable education for vulnerable children in sub-Saharan Africa. Through its ILP financing approach, the ILFF intends to pay only for the actual results attained by eKitabu. This approach is meant to ensure that the risk of financial loss associated with an unsuccessful intervention will rest with eKitabu rather than the funders. Moreover, this financial risk is expected to provide eKitabu with additional incentives to focus on achieving the agreed results. The ILP from the ILFF could also help eKitabu improve its long-term financial sustainability by demonstrating the effectiveness of its intervention in improving learning outcomes for students who are deaf or hard-of-hearing. This would, in turn, allow eKitabu potentially attract additional revenue from other market-based sources. The advance payments made from the ILFF to eKitabu would enable the latter to invest in any development and delivery costs required to implement the intervention in public schools without charging the schools directly and the learners indirectly.

Measuring Results

Given that payments from the ILFF to eKitabu are entirely contingent on the company achieving results, both the precise definition and measurement of these results are central to the funding agreement. Overall, these payments are made based on two metrics:

1. Eighty percent (USD 280,000) of the payment is contingent upon the increase in the number of deaf learners reached.
2. Twenty percent (USD 70,000) of the payment is contingent upon the average gains made in sign language learning by these learners.

ILFF and eKitabu define "reach to deaf learners" as students attending one of the schools (whether special-needs, inclusive or integrated schools) in Kenya in which eKitabu has deployed its educational solution for sign language acquisition. The first baseline metric excludes students who drop out or join the school term too late in the year to benefit from the intervention. eKitabu aims to reach at least 852 students (potentially up to 1,023 for the maximum payment) in 15 or more public schools in Kenya to achieve the first metric on reach by the end of Year 3.

eKitabu will utilise its standardised assessment tool, developed in collaboration with Kentalis International Foundation, to report learning gains for the second metric. In the first year of the intervention, the assessment tool will be used to establish the average baseline learning score for the students. This baseline will inform the targets for Years 2 and 3 in terms of the minimum learning levels to be achieved by each student engaged with eKitabu. During Years 2 and 3, each student will undergo assessment at the beginning of the year (or upon onboarding in the school) and at the year's end to evaluate changes in their learning scores. Average learning gains will be calculated by summing the differences in the learning scores for each student and dividing this total by the overall number of students reached that year. Furthermore, only students who are part of the programme for a minimum of two full school terms out of three in a school year will be included in the total student count. This will ensure that only students participating in the eKitabu intervention and who have not dropped out of school are considered in the measurements.

The baseline learning score will be established in Year 1 through a study conducted by Busara, an independent research organisation. Busara will designate two schools as the "control" group; eKitabu will not implement the whole intervention in these schools and will only train the school staff to use its standardised assessment tool. The remaining three schools in the first year will serve as the "treatment" schools, and the complete eKitabu intervention for deaf and hard-of-hearing learners will be implemented. Busara will compare the learning scores of students in the three treatment schools with those in the two control schools at the end of Year 1 to measure the learning gains.

eKitabu will submit reports on both metrics to the ILFF each year. Although the ILFF will not continuously monitor eKitabu's intervention implementation or provide any management oversight, the ILFF will verify the reported results annually through a third party. Payments for that year will be disbursed to eKitabu following verification. If, in any given year, eKitabu demonstrates a high level of success in improving learning gains but does not achieve an increase in the number of learners, the ILFF will reduce the payment for the learning gains metric to reflect the actual number of learners reached.

Stakeholder Engagement and Motivation

Results-based financing has gained prominence in the field of development financing in recent years. While ILP can be understood as a form of results-based financing, it is not a commonly utilised instrument by the ILFF. Generally, results-based financing is viewed as a financing approach aimed at enhancing the effectiveness, efficiency and accountability of development initiatives by incentivising service providers to achieve intended outcomes (Terway, Burnett & Dreux Frotté, 2021; Lee & Medina, 2019). Various stakeholders involved in such arrangements have different interests in employing the ILP financing approach. Outcome funders, such as the SDC and Jacobs Foundation, are drawn to results-based financing approaches because they consider them to provide value for their money. The ILP enables the outcome funders to pay solely for the additional impact created by the social enterprises (in this instance, eKitabu) create, and what is incentivised is decided upon at the contract preparation stage. The facility/transaction manager (in this case, the ILFF) is responsible for monitoring the progress made by the enterprise and overseeing the impact verification conducted by the third party. They also share the results with the outcome funders at the end of the measurement period.

The intermediary organisations, Roots of Impact and iGravity, assist the outcome funders (SDC and Jacobs Foundation) in implementing scalable impact-linked finance programmes and facilities. They contribute their financial management expertise to the arrangement by selecting potential impact enterprises, structuring the most suitable financial arrangements, commissioning third parties to verify results and disbursing outcome funds to enterprises contingent on their achievement of results. Impact-focused financial advisory and management organisations such as Roots of Impact and iGravity are drawn to ILP as it seeks to utilise financial incentives to help enterprises achieve scale and create additional impact. It also aims to assist enterprises in business terms by scaling, monetising, and incentivising impact.

ILP constitute a unique revenue source for eKitabu, as it offers eKitabu financial rewards for demonstrating the educational impact of its intervention. Without such impact-linked funding, eKitabu, a for-profit service provider, would need to depend on fees charged to users – either schools or learners (directly or indirectly through other service providers) – to develop and deliver their services. However, when an outcome funder can finance these services through impact-linked funding, eKitabu could potentially provide services to populations unable to pay the costs associated with these services. While eKitabu aims to deliver high-quality services, the financial incentives and the requirement to verify results to receive ILP funding encourage the organisation to transparently demonstrate the results it achieves.

The ILFF overall goal is to create enough evidence of the financial model's effectiveness so that other funders and donors can replicate similar results-based models.

Conclusion

Impact-Linked Payment is a novel financing approach that has the potential to incentivise for-profit social enterprises, which primarily employ market- or fee-based revenue models to fund the delivery of quality services to marginalised populations that may not otherwise be reached. The ILFF's innovative use of this financing approach will allow eKitabu to demonstrate whether and how this mechanism could contribute to incentivising improvements in service delivery to deaf and hard-of-hearing learners, making its intervention more accessible and effective at enhancing learning.

Further research that captures how eKitabu organises its management practices in utilising ILP – particularly to enhance the financial efficiency and effectiveness of its interventions – will be valuable for understanding how financial solutions contribute to the achievement of educational impact for marginalised populations through for-profit social enterprises. Evidence regarding the processes used for monitoring and measuring targeted results metrics will provide insights into the opportunities and challenges these enterprises encounter as they look to increase their focus on results when their financing is tied to outcomes. This understanding will help education finance stakeholders evaluate, design and implement outcomes-based financing as a strategy to enhance educational outcomes. It will especially be of interest to assess whether and how eKitabu attains long-term financial sustainability by attracting additional funders, additional funding or indeed fee-paying customers based on its performance with the ILP.

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About the Project

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Disclaimer

This case brief is primarily based on publicly available secondary data sources and funding application material submitted to the Impact-Linked Finance Fund by the enterprise. The aim of the publication is to synthesise existing information about the financing mechanism and its specific application in the education sector, much of which may be produced by the organisation that has developed or is managing the financing mechanism. It does not preclude the necessity of conducting additional research to obtain a deeper understanding of the evolving design and implementation of the mechanism, as well as its benefits and challenges, especially regarding its contribution to access, quality and equity in education.

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