Digital Tools for Demand-Side Subsidies: Balancing Functionality, Usability, and Cost

endev



Key Messages

- Digital eligibility tools can reduce companies' financial risk by enabling them to verify customer eligibility before completing subsidised sales.
- They can also strengthen DSS effectiveness by reducing duplicate subsidies as well as human error and improving programme monitoring.
- The more complex targeting becomes and the higher the value of the subsidised product, the more useful digital eligibility tools become.
- Integrated digital systems can streamline RBF management and reduce transaction costs across claims, verification, and disbursement.
- Digital tools alone do not ensure effective delivery; adequate training and user capacity are critical to their successful adoption and use.

What the DSS Component did

The EnDev Energy Access through Demand-Side Subsidies (DSS) component identified the need to use robust digital tools to support eligibility screening, sales registration, and monitoring in all pilot countries. The need emerged from the nature of the RBF delivery model, under which companies were only reimbursed for subsidised sale to eligible clients after successful verification. This inherent financial risk for companies made it imperative to confirm client eligibility and the right subsidy level before the sale was made. Beyond this careful budget monitoring to avoid overspending made real-time monitoring of sales imperative for implementation management.

EnDev assessed whether to develop its own tool or adapt an existing platform. A custom-built tool would have allowed for greater flexibility, but raised questions around hosting, maintenance, adaptation, and long-term sustainability. Existing platforms offered less flexibility, but came with established hosting, maintenance, and user support. Given the desire to make the tool publicly available, it was decided to develop the tool using a low-cost, open-source, and adaptable platform: KoboToolbox.

EnDev and the Kobo team developed a standard eligibility and registration tool, which allowed sales agents to perform eligibility cross-checks – in some cases accessing external datasets – and register sales, thereby preventing multiple subsidised sales to the same customer. The tool also displayed the applicable subsidised sales price, reducing the risk that agents would apply the wrong subsidy level. The eligibility tool was accessible through the KoboCollect mobile app in areas with and without network. Across pilots, KoboToolbox supported customising the tool to specific contexts, troubleshooting, and adapting to needs emerging from implementation. Adaptations included for example

integrating additional verification-related functions (sample-size calculation, selection of phone and field verification samples, and documentation of verification results) for the Niger pilot.

A Power BI dashboard aggregated and visualised data submitted by companies. The dashboard was accessible to the EnDev DSS teams and implementation partners at country and global level, thereby supporting programme management, reporting, and learning. Country teams were able to use registered sales data to triangulate information during verification and claiming, monitor sales trends, assess company performance, and identify possible fraud or misuse. At global level, the data supported the analysis of sales patterns, subsidy levels, product prices, and overall portfolio progress. It also allowed the global team to identify inconsistencies or emerging implementation issues.



What we learned

The more complex and targeted the subsidy schemes at scale, the greater the value of a digital eligibility tool. Digital eligibility tools become increasingly important when targeting relies on personal data and external eligibility lists (e.g. income categories, refugee status, etc.) or subsidy levels are differentiated. A digital tool can quickly, accurately, and safely process complex and sensitive data and provide the sales agent with a simple eligibility result. In a scheme with a broad geographical scope or high-value products, a digital tool can prevent multiple subsidised purchases or the resale of subsidised products. It also supports data protection as the amount of personal information that needs to be visible to companies is minimised. The principle should be to collect only necessary data and have clear rules on user access, anonymisation, storage, sharing, retention, and deletion in place.

Digital tools should simplify the sales process for agents. The DSS pilots involved different eligibility rules, subsidy levels, product categories, payment models, and customer groups. A well-designed tool can reduce human error by guiding agents through these rules, while the form itself remains simple to use. Long forms, unclear questions, repeated data entries, or unnecessary fields can slow sales and increase errors, especially in low-connectivity areas or high-volume sales settings. Low connectivity also poses risk to the accuracy of eligibility and sales monitoring. The offline mode of KoboCollect was essential as it allowed data collection in areas with limited connectivity. However, some functions (e.g. duplicate checks) depend on data being synced and “live” data sometimes lagged behind actual sales.

Company and agent knowledge and skills are a decisive factor. Companies’ sales staff required significant and continuous training to ensure the proper use of the eligibility tool. Agents from smaller, less professionalised ICS companies had little to no exposure to the use of digital tools and in some cases eve no mobile devices. During implementation it also emerged that some companies used the tool incorrectly. Companies were requested to check eligibility before completing a subsidised sale. However, in practice, some companies performed bulk checks, requesting eligibility information for many customers at the same time, or entered data at later stages, which can impact the tool’s value in reducing financial risk. To avoid this, agents should have a clear understanding of workflows and tools, as well as the potential consequences of their incorrect use.

Digital tools should be integrated into RBF management processes wherever possible. Eligibility checks, sales registration, claim submission, verification, and disbursement were not managed under a single system due to limitations imposed by data protection policies, which resulted in duplicate data-entry and controls. A full integration of tools and processes – where ideally companies enter relevant customer and sales data only once - reduces transaction costs, improves transparency, and facilitates fraud checks.

Digital tools can facilitate data exchange and assist in preventing duplicate sales across parallel programmes. Linking digital tools and data management systems of parallel subsidy programmes can strengthen targeting and prevent subsidy misuse across interventions. In Uganda, EnDev and the World Bank funded EASP worked on automating the exchange of sales data. The integration took longer than expected due to differences in data formats and legal requirements but ultimately resulted in the identification of duplicate sales and payments. Therefore, for an integration to be successful clean data, legal clarity, compatible formats, data-sharing agreements, technical support, and maintenance are essential. If these conditions are not met, complex integrations can delay implementation.



The use of digital tools can make DSS implementation less risky, more accurate, and robust against fraud. This becomes especially relevant when dealing with complex, narrowly targeted subsidies, high-value products and / or subsidy schemes at scale. However, digital tools also carry high costs, training needs, data-protection obligations, and technical dependencies. These aspects should be carefully analysed and weighed when choosing the right digital support systems for a DSS programme.

A technical learning report containing development lessons and instructions for customising available form templates are available online.

Funded by:

german cooperation
DEUTSCHE ZUSAMMENARBEIT

Ministry of Foreign Affairs of the Netherlands

Norad

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development and Cooperation SDC

Coordinated by:

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Netherlands Enterprise Agency

Published by:
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH
Registered offices Bonn and Eschborn, Germany
Dag-Hammarskjöld-Weg 1-5
65760 Eschborn, Germany
E info@giz.de
I www.giz.de

Contact:
Energising Development

E endev@giz.de
I www.endev.info

As of: 26/10/2026

Photos:
© GIZ