CEUS software

The CEUS (Centralized Underwriting System) software combines qualitative variables that make the microfinance methodology special, personal and efficient with technology to incorporate climate and productive risk variables.

CEUS processes data from two perspectives:

1. Pre-filled agriculture information collated in workshops, interview to successful producers, best practices and bibliographical information.
2. Customer-specific information – family information, crop data, productive processes, cost of activities, pests, microclimate and livestock herd.

With this information the tool compares costumer data with the pre-established initial parameters. It generates afterwards the required risks reports for credit decision-making.

One of CEUS’ main advantages is that it centralizes information about certain crops and farmer’s productive practices while storing data and allowing its management by the commercial and risks units. The MFI benefits from knowledge being available to all commercial teams instead of being dispersed in credit officials assigned to determine geographical areas. In addition, CEUS allows for better credit decision-making since it provides detailed information on crops and their risks.

CEUS organizes the farmer’s cash flows and adjusts them to climate, productive, market and operational risks. It allows to analyze loan viability through scenarios with varying prices in crops and the impact on the prospect’s financial obligations (elasticity).

CEUS measures the contribution and profitability of crops or the agricultural activity and the agro-business organization, as well as the individual’s willingness to pay and capacity to adapt to climate change via sustainable solutions. In this way the credit analysis is performed in several dimensions.

Technical specifications

The CEUS processer is developed and configured in the following way:

B. Connection to database: ORM Entity Data Framew
Similar to many technological tools of this nature, the processor’s design contains the necessary elements for data storage and execution of business rules:

Interconnectivity offered by CEUS allows for its use in a client-server environment to store data and process information in a centralized way.

**Functional specifications**

CEUS is composed of modules on agricultural and husbandry risks. To ease navigation and data handling the tool is divided in two user levels:

1. Administrator level to configure necessary data to create structures and upload baseline information for credit analysis. This module allows to establish business rules for the processor.
2. User level to process information from the evaluation performed to customers or loan applicants.

The CEUS tool also offers the following advantages:

**User-friendly** – allows to follow the natural flow of a loan application and evaluation

**Intuitive** – offers screens in the same logic as any other Windows program (tabs, menus, displacement bars).

**Operational** – it may be handled in environments at branch level with the potential to be easily scaled up to mobile units (smart phones, tablets).
Integrity – the administrator module segregates functions between user types – for example “executive” (module administrator) and “loan officer” (final user) – so the tool may not be configured or manipulated by employees in the business front-end.

Knowledge – besides storing the necessary agro-lending knowledge for the analysis, CEUS contains baseline information on productive practices and input needs for crops in each phenological phase.

Versatility – it allows for differentiated information for crops, productive practices and prices by branch zones, thus avoiding distortions on local conditions that would result if the same information for the entire country, state or municipality were used.

Efficiency – generates automatic reports for credit committee on risks, financial balance and cash flow.

Speed – the ease in which CEUS is handled reduces time required to fill the applicant’s information

CEUS has been effectively tested in MFIs with years of experience in agro-lending. The MEbA project’s partner MFIs are currently analyzing the way to integrate CEUS in their commercial strategy for credit analysis of EbA-oriented credits as well as in all their agricultural financial products.