



## FINANCIAL ANALYTICS PLATFORM

MICRO-FINANCE is making revolutionary strides in providing financial services to the poor, a market segment that formal financial institutions tend to ignore. As a result, more and more people have a chance at rising out of poverty. For countries where over eighty percent of the population live under the poverty line, this impact is significant.

In many ways, informal financial (micro-finance) institutions are operationally similar to formal ones. Like the latter, informal financial institutions have to continually grow to remain sustainable; lower operating costs in-order to stay profitable, and maintain a high quality loan portfolio to ward off avoidable risk.

Unlike formal financial institutions, however, informal institutions have a fourth equally important pillar – customer transformation. Customer transformation involves reaching a new target area and improving the customer service experience of the clients.

Our Financial Analytics Platform<sup>SM</sup> (FAP<sup>SM</sup>) is an end-to-end Solution as a Service (SaaS) that is designed to enhance business processes for informal financial institutions. It intelligently looks at your data to provide analytical insights by addressing key questions: What is happening? Why is it happening? How should the business act on this opportunity/ prevent this impending threat? This saves you time that would usually be spent building reports to answer these questions. Moreover, FAP<sup>SM</sup> provides insights on a day-to-day basis, derived from fresh data. This allows you to see changes in your business as they happen.

### Business Value

#### Quality and Risk Management: Maintain a healthy Portfolio

MFIs rarely have a consolidated view of their loan portfolios, which makes their management difficult and inefficient. This often requires consolidation of data from different source systems, such as accounting and core banking systems. In-order to better manage risk in a single view, MFIs require a platform that aggregates separate risk and financial data into an integrated, enterprise-wide view of risk across divisions, geographies and risk classes.

FAM<sup>SM</sup> apps allow MFIs to answer key risk questions such as:

*What are the delinquency levels in the portfolio?*

*Which products, branches, loan officers or vintages are performing well and which ones are performing poorly?*

*How much of the portfolio is rolling over from one delinquency bucket to the next?*

*How many new loans are being originated, and with what characteristics?*

*Are write-offs rising or falling, and is one product type or branch experiencing more write-offs than another?*

*Are recoveries, and write-offs in line with forecasts for these metrics?*

*What is the concentration level of your portfolio?*

*What is the credit scoring and probability of default across your portfolio?*

### Advantages

#### Frequent business insight

FAP<sup>SM</sup> gives you an up-to-date holistic view of your business on a day-to-day basis. This is automated so tasks such as portfolio aging, vintage analysis and cash flow management are quick and painless. Additionally, it allows you to set and helps you achieve frequent targets for the KPIs that matter to you: PaR, customer churn rate, financial ratios and operating cost ratio.

#### Quick deployment

FAP<sup>SM</sup> comes with predefined KPIs and insights based on industry-standard metrics, which can be tailored to your business. In total, we aim for an end-to-end implementation period of 3 – 4 months. The result of this is drastic time savings and a quicker return on investment.

#### Flexibility

FAP<sup>SM</sup> is both architecture agnostic and cloud ready. It runs on a highly-configurable core that plugs seamlessly into whichever enterprise architecture you have installed. This saves you the additional cost and human resource requirement that comes with installing a new architecture. Alternatively, we offer a cloud-hosted solution that takes the stress of managing the infrastructure off your hands so you can focus on running your business.

FAP<sup>SM</sup> also accepts external business input. This allows it to customize insights based on your goals and targets, for example.

#### Extensibility

FAP<sup>SM</sup> is broken up into loosely coupled modules, so we can deploy only the functionality that suits your business and budget. Should you require additional functionality in the future, activation of additional modules is fast and simple.

## Operational Profitability and Channel Management

MFIs are often criticized because of their high lending rates. The root cause of this is the low productivity and inefficiency of MFIs, given that microcredit is highly labor intensive.

Better monitoring and management of MFI operations is therefore crucial to reducing their operating costs and increasing their productivity.

CNM<sup>SM</sup> Channel & Network Module allows your MFIs to answer key operational questions such as:

*What are my Operating Expenses? What drivers will lead to their reduction?*

*What is my cost per borrower? What drivers will reduce this cost?*

*How productive are my personnel? In particular, how productive have loan officers been through time and across branches?*

*Which channel is most utilized by my clients and what type of transactions do they perform - by geography and channel, per day, week, and month?*

*How are agents performing in terms of transactions – weekly and monthly?*

*What is my penetration ratio and where should I open a new touch-point?*

### 360 Customer-centricity

To meet donor expectations, MFIs need to serve a specific type of client and report on their outreach and progress towards poverty alleviation.

Donors who support MFIs expect that they (MFIs) demonstrate progress towards the alleviation of poverty among certain demographic segments: women, rural dwellers, the disabled, minorities, and youth. In addition to frequent reports on outreach, MFIs also need to monitor their transformational impact among

these segments.

CCM<sup>SM</sup> apps allow MFIs to achieve this goal by providing an integrated tool that pools together customer survey data and business targets, and answers the following questions:

*What is the number of new customers per segment?*

*What is the customer satisfaction rate per segment, per product, per region?*

*What is the retention rate per client segment, per product?*

*What is the level of poverty per client segment, per loan cycle?*

## Solution as a Service

### Banking Model

FAP<sup>SM</sup> implements its own banking model which is the core of the application (Figure 2). It analyses your raw data, performs necessary cleansing and transformations and generates insights based on predefined KPIs.

The Banking Model is implemented in 4 loosely coupled modules that enable you to focus on the most important operational aspects of your business:

*The Finance Analytics Module (FAM<sup>SM</sup>)* mainly helps you monitor your loan portfolio and operational efficiency. It enables you to identify the root causes of business problems – for example loan officer overload as a primary cause of portfolio delinquency. These are followed up by actionable solutions which may be assigned to an accountable stakeholder for follow-up – all within the software.

*The Channel & Network Performance Module (CNM<sup>SM</sup>)* gives you a day-to-day view of your network across channels. It lets you understand which network elements are utilised most efficiently,

## Key Features

### Banking Model and Pre-packageable Analytical Insights

FAP<sup>SM</sup> implements its own banking model which is the core of the application. It analyses your raw data, performs necessary cleansing and transformations and generates insights based on predefined KPIs that support loan portfolio management, channel and customer intelligence.

### Loan Portfolio Management Apps

Help you monitor your loan portfolio and enables you to identify the root causes of delinquency:

- Vintage analysis
- Recovery rate calculation and write-off management
- PD prediction

### Channel & Operational Performance Apps

Help tracking the channel usage and foster a branchless approach. Also help monitor agent performance and operational efficiency.

### 360 Customer-centricity

Provides tools that enable you to monitor the most important aspects of customer management:

- KYC
- Acquisition and retention rate
- Transformation KPIs

### Agile technology

Integration built on ANSI SQL packages. Easy to adapt and implement to any type of stack -- MS, Oracle or IBM. It provides task and action follow up through real workflow management.

monitors financial inclusion among your market base, identifies potential for expansion and more. Like the Finance Analytics Module, it provides actionable solutions to the most pressing issues within these themes.

The 360 Customer Centricity Module (CCM<sup>SM</sup>) provides tools that enable you to monitor the most important aspects of

customer management: KYC, acquisition, churn and transformation. For example you will be able to track the impact that your loans have had on your customers' access to education. You will also be able to understand their most common complaints, get actionable suggestions to help you address them, and be able to assign chosen actions to the relevant

parties, all from within the tool.

The Product Performance Module (PPM<sup>SM</sup>) enables you to assess the success of your product offerings and tailor them to your customer, network and financial goals.

**Architecture**

FAP<sup>SM</sup> is architecture-agnostic (Figure 3) allowing to pull data from a variety of sources (core banking, Excel, Google Docs, Accounting software) , leverage one of a variety of ETL tools to perform data transformation and loading (Pentaho, Informatica, SSIS) and manage this data on an arbitrary DBMS (SQL Server, Oracle).

We also provide cloud-based solutions besides the service on the web. Cloud-based solution helps in reducing the infrastructure costs and in addition works with the existing cloud based applications. It enables saving costs of data transfer and optimizing the overall performance.

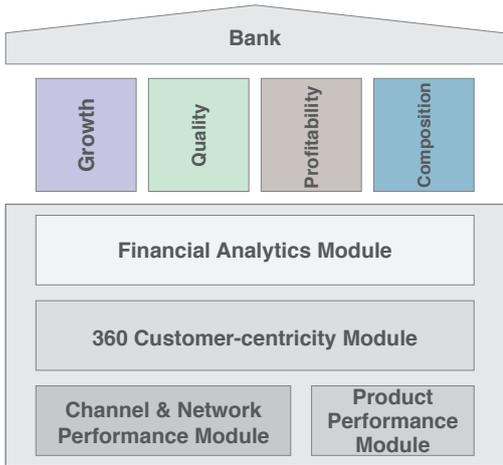


Figure 2: FAP's Banking Model and its four Modules enables the user to focus on most important areas of the operations.

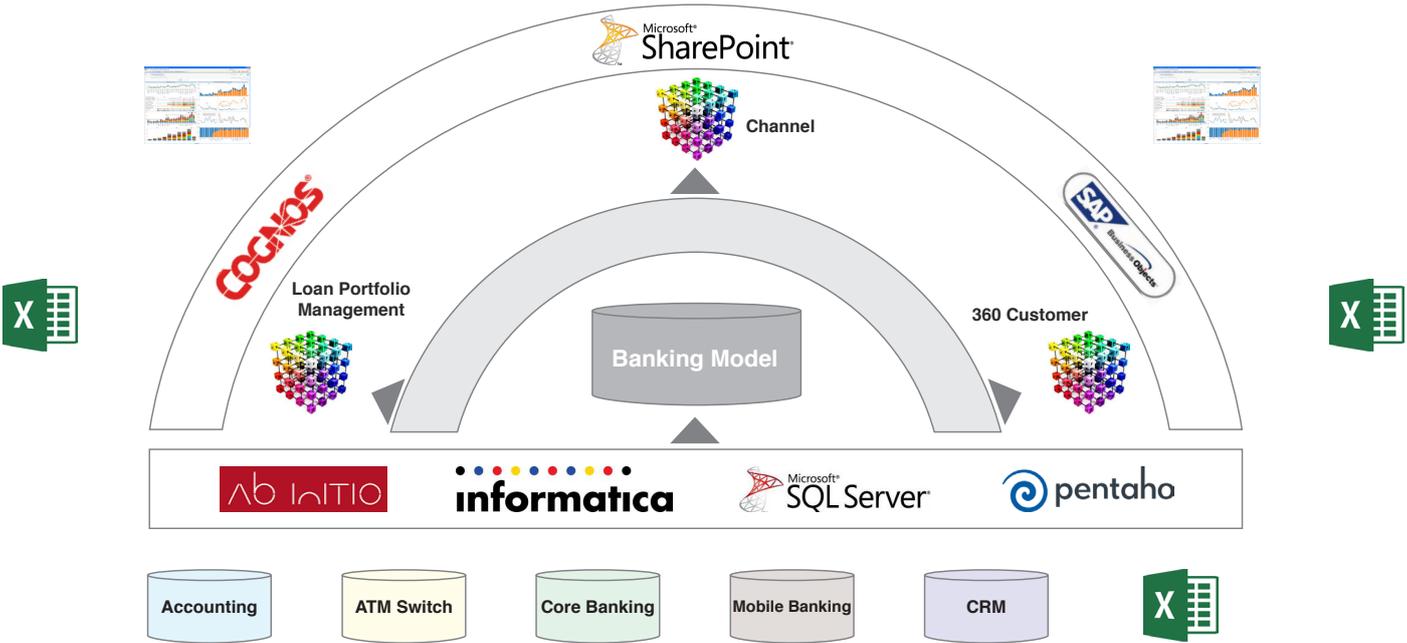
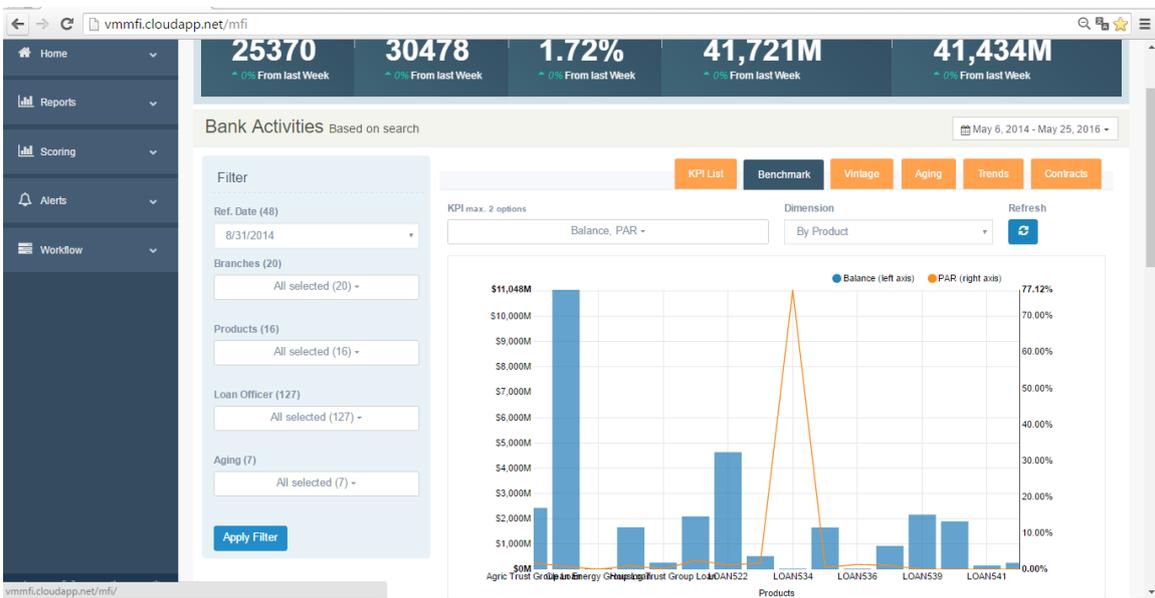
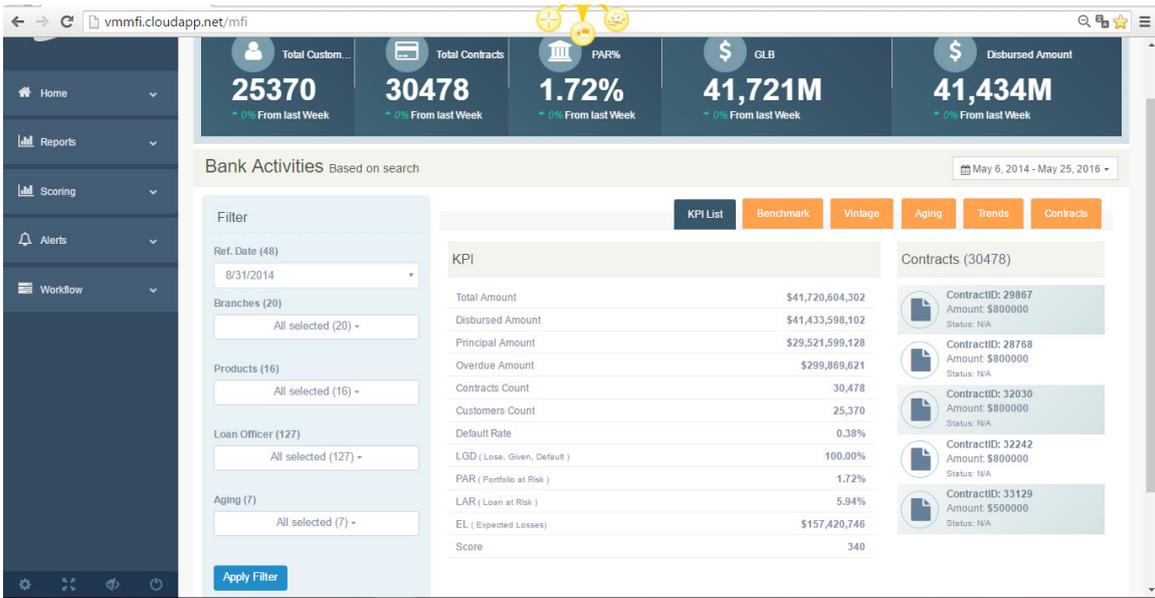


Figure 3: The architecture of the solution allows to pull data from variety of sources to perform data transformation.



**Vintage Data Table:**

Date of Granting Loans	Initial Value of Granted Loans	1-7	8-14	15-30	31-60	61-90	> 90
2014-1	88,932,012,101	5,537,886,379	2,358,782,364	2,437,320,841	2,437,320,841	2,437,320,841	2,437,320,841
2014-2	104,835,863,767	6,772,194,854	3,030,269,866	3,551,724,567	3,551,724,567	3,551,724,567	3,551,724,567
2014-3	164,414,449,380	10,006,818,599	3,925,227,446	4,265,819,642	4,265,819,642	4,265,819,642	4,265,819,642
2014-4	200,332,538,118	11,295,106,492	4,375,829,538	3,543,422,799	3,543,422,799	3,543,422,799	3,543,422,799
2014-5	221,437,457,902	8,934,199,119	2,633,159,375	1,765,615,232	1,765,615,232	1,765,615,232	1,765,615,232
2014-6	245,068,121,740	8,317,541,801	2,124,569,626	1,230,280,017	1,230,280,017	1,230,280,017	1,230,280,017
2014-7	196,273,418,232	3,286,733,680	618,265,059	150,822,458	150,822,458	150,822,458	150,822,458
2014-8	67,658,979,229	95,302,250	8,019,114	0	0	0	0
2014-9	4,000,000	0	0	0	0	0	0

### **The MFI-Insight Analytics solution for banks:**

- *Conducts both top-down and bottom-up branch planning to ensure alignment with strategic objectives.*
- *Enables portfolio analysis, profitability planning and reporting by channel, customer and product, with a high level of accuracy.*
- *Integrates with the bank's existing architecture or external providers to provide loan portfolio management, customer-centricity and channel performance.*

### **Why MFI-Insight Analytics**

MFI Insight is powered by INES-IT.sprl, a well-established European consultancy company which has provided over 15 years analytics consultancy to top financial institutions. The team includes both technology and business experts with over 50 years cumulative experience.



**South Station Titanium,  
Marcel Broodthaersplein 8/5, 1060  
Brussels South Station,  
Brussels,  
Belgium**

+32 2262 39 44 | [sales@mfianalytics.com](mailto:sales@mfianalytics.com) | [www.mfianalytics.com](http://www.mfianalytics.com)

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