



## **MIX XBRL Case Study**

### **Key Project Features**

#### **Project Goals:**

- Our goal is a genuinely global data collection using XBRL. We seek to translate diverse data from microfinance institutions into a form readable by an equally diverse set of stakeholders. We look to support standards within the microfinance community through use of an XBRL taxonomy and use of XBRL as a common language for exchange of information on microfinance institutions.
- An immediate goal was to build a robust and scalable data model to capture key information from microfinance institutions globally. We use this data model to coordinate previously scattered data collection activities into a single framework. The improved data model creates process efficiencies, but also improves data depth and quality.
- Current success is measured by our ability to implement XBRL in an organization with a small, distributed staff of non-technical users. Our hope is that this case study also demonstrates the potential for broader XBRL adoption.

### **Background**

The Microfinance Information Exchange (MIX) is the leading global provider of data on microfinance institutions (MFIs), which are retail providers of financial services to the poor. MIX was founded in 2002 as a non-profit organization to address information gaps and to strengthen microfinance sectors by providing objective data and analysis. MIX is headquartered in the United States, but works entirely with institutions in the developing world. We maintain affiliate offices in Peru, Morocco and India, and data partnerships in over 20 countries.

MIX has a truly global focus. We collect and publish data from a continually expanding group of over 1700 microfinance providers in more than 100 countries in the developing world. We present this data through our website, MIX Market ([www.mixmarket.org](http://www.mixmarket.org)) and in regular reports and analysis (available on [www.themix.org](http://www.themix.org)). Many different types of institutions provide microfinance services (credit or savings), and MIX covers everything from commercial banks to non-governmental organizations operating without formal oversight. All data are provided voluntarily and all information is available free-of-charge to the public.

Microfinance sectors are microcosms of the formal financial sector. Our reporting entities are the institutions providing financial services to the poor and some national and international networks of microfinance institutions that act as aggregation points. Our audience includes the same reporting entities, along with microfinance investors and donors, microfinance rating agencies, academic



researchers, and regulators focused on the microfinance sector. Healthy microfinance sectors require each of these actors to easily exchange information.

Reporting entities have limited technical capacity and no familiarity with XBRL. Our historical reporting process was hands-on and labor-intensive, involving manual transfer and consolidation of data from audited financial statements, Excel documents, online submissions and other sources. The landscape of MIS providers serving microfinance institutions is fragmented, with many small shops serving MFIs in different regions. While an increasing number of institutions are formally regulated, there are still substantial gaps, and limited public information even where there is regulatory oversight. Since our reporting is completely voluntary, we need to ease the reporting burden as much as possible in order to maintain participation.

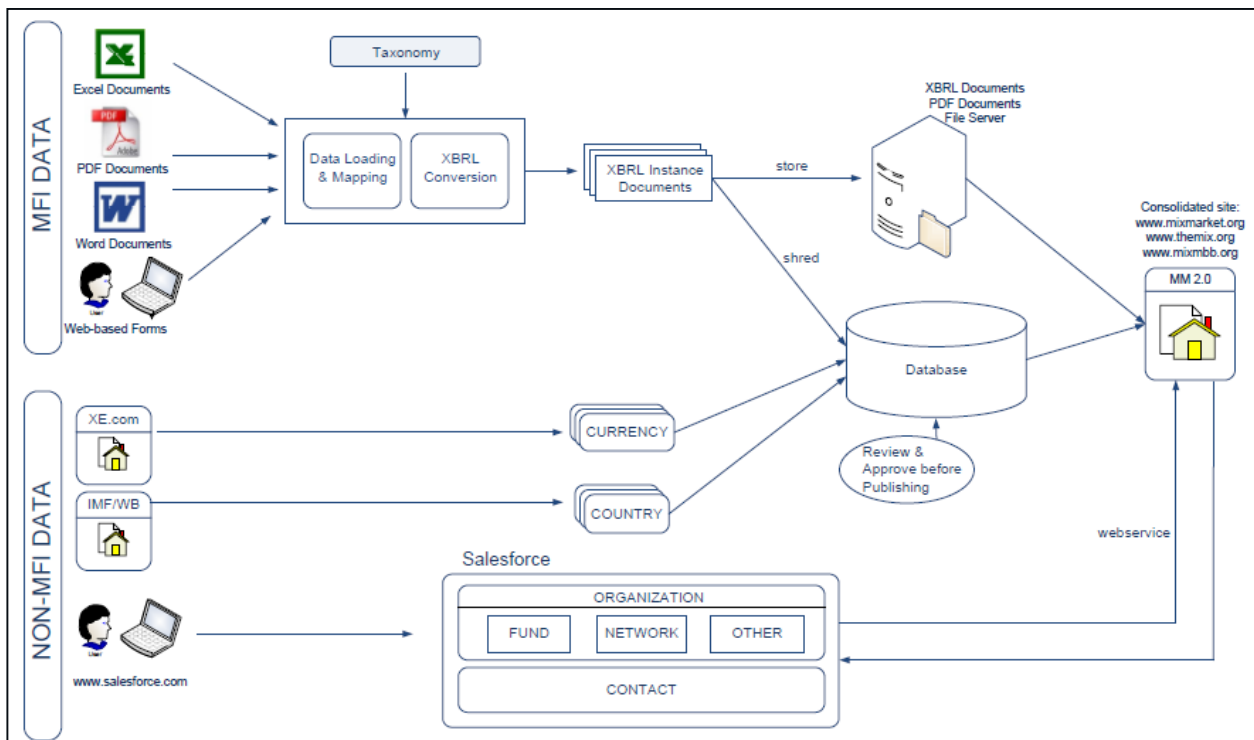
### **XBRL Implementation**

The use of XBRL affected our entire data process flow. We moved to a new data collection platform to allow the creation of XBRL documents based on our taxonomy. We restructured our database to reflect the updated data model and to allow extraction and aggregation of content directly from XBRL documents. We had a head start on understanding XBRL through use of an XBRL-based data processing and benchmarking system which was operational from 2006 to 2008. The changes to our data collection and processing also affected the data presentation and analysis options for the public. Our XBRL development was a component of a larger project redevelopment of our MIX Market website and was funded by the MasterCard Foundation for less than one million USD.

MIX chose to develop an XBRL taxonomy based on International Financial Reporting Standards (IFRS). The MIX Microfinance taxonomy recently received recognition from XBRL International as the first acknowledged extension of the current IFRS taxonomy. We chose IFRS due to its role as the most common set of accounting standards across the 100-plus countries within our coverage.

We adopted a data-driven approach for the taxonomy, rather than a forms-driven approach, and IFRS was also well-suited for this purpose. We made substantial use of dimensions to help capture a diverse range of disclosures and varying depth of data in many interest areas. For instance, we used dimensions to provide breakouts of primary concepts by gender, by microfinance products, and by geographic focus of services. We did not use formulas due to the lack of an approved formula specification when we launched the taxonomy development. We required a document 'shredding' solution for data aggregation and integration with some non-XBRL historical data. Our audience also has limited current use for XBRL documents themselves, although we are working on ways to directly provide XBRL content to users.

We made a strategic decision at the start of this development to license off-the-shelf software whenever possible and to avoid custom development. We anticipate that increased global adoption of XBRL will lead to market competition and more and better software solutions over time. To that end, we licensed two products from Rivet Software: CrossTag, for creation of XBRL documents using the MIX Microfinance Taxonomy, and the Rivet XBRL Loader, to 'shred' XBRL documents for aggregation. We chose these applications because of their relative user-friendliness and because they enable us to maintain a modular solution which we could upgrade over time (rather than an end-to-end solution). We also had in-house database development work for data post-processing (currency conversion, ratios calculation).



We launched this project in late 2008. Our extension taxonomy, based on the most recent IFRS taxonomy, was ready for production (in working draft form) by the end of Q1 2009. Our XBRL data collection process was fully functional by the middle of Q2 2009. The MIX Market website ([www.mixmarket.org](http://www.mixmarket.org)) presenting XBRL-powered data was up and running by the end of Q2 2009. Benchmarking and analysis functions were online by the end of Q3 2009.

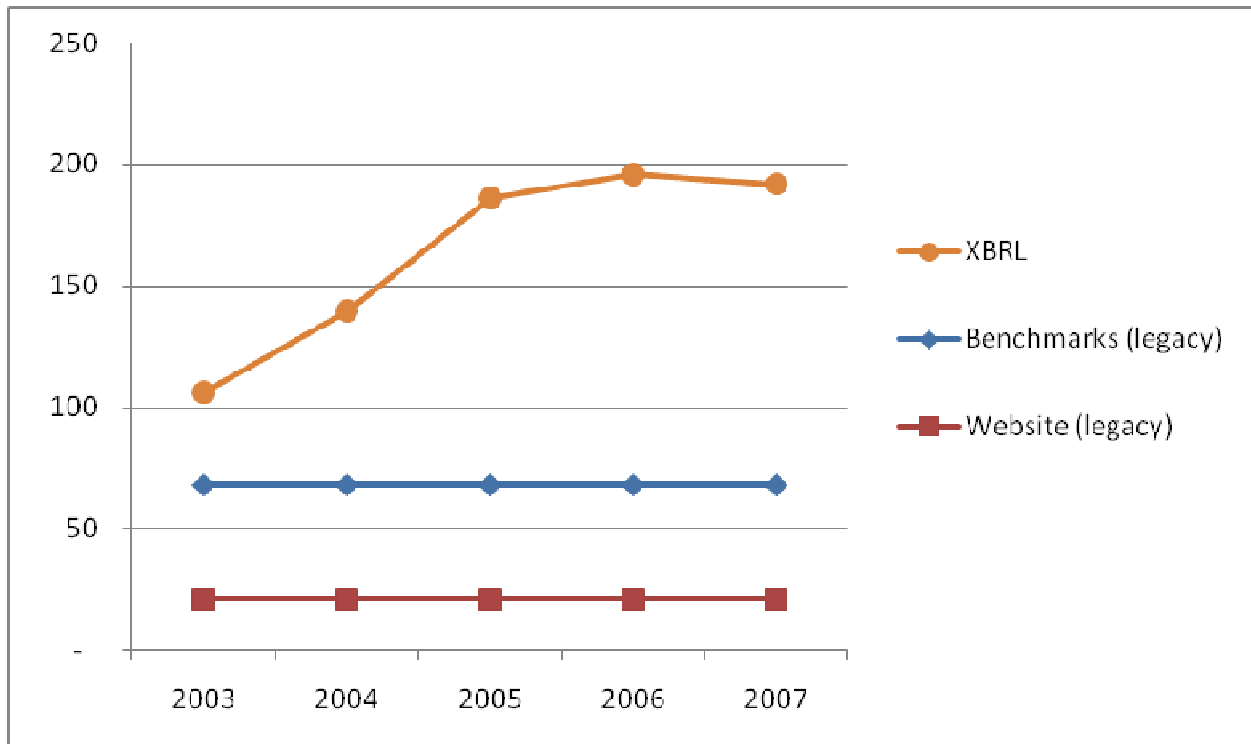
In the future, we hope to better integrate the MIX Market site display with the XBRL taxonomy and to provide XBRL documents directly on the MIX Market site. We have not moved direct creation of XBRL content beyond the MIX staff. However, we will pursue proofs of concept with microfinance MIS providers to test such linkages, since they provide benefits to all parties. We have goals to create XBRL

content from other sources and to work more like a true data hub, requiring less intermediation by MIX staff. We are also looking for better aggregation and querying prospects on XBRL data.

## Results

### General results:

- XBRL has allowed us to present much deeper data on microfinance institutions. Our previous data collection activities had closed reporting frameworks and did not allow expansion over time. The graph of trends for data points from Cambodia (produced by back-filing historical data via our XBRL taxonomy) shows not only the overall higher levels in our data-driven model, but also reflects the increase in reporting standards over time in Cambodia. For tracking microfinance sectors that continue to change and improve reporting, this in itself is valuable information. We have found some challenges moving from a relatively comfortable forms-driven world to the more flexible, but uncertain, data-driven world, but the overall results provide better value to our users.



\* Average data points per year per MFI; Cambodia – 2003 – 2007

- The use of a flexible XBRL data model has allowed us to model many additional data sets delivered from the same resource base. For example, we are now able to provide detailed data on products offered (such as whether loans are intended for microenterprise development or for housing or health or education) and sectors targeted by microfinance institutions (such as tracking agricultural lending, gender breakouts, and regional distributions). We now also show portfolio aging profiles for delinquency. The inherently extensible nature of XBRL allowed us to capture information that we could not model using a closed or forms-based data model. These new data sets feed into our own research reports and analysis.
- Creation of a single XBRL taxonomy allowed us to harmonize previously scattered standards, and to provide a concrete means of communicating this model to stakeholders. Direct reference to IFRS meant that we did not have to re-build many basic relationships and allowed us to catch errors early in the data collection process. However, we still lack a method for validating dimensional data and will consider using formulas for some other relationships.
- Use of XBRL has made the current barrier to providing data a bit higher, given the lack of XBRL tools available for the broader microfinance community. However, this is an expected result until we can better communicate about standards and distribute systems more broadly (especially online). Given the impacts on data quality and other process efficiencies, we consider this a worthy tradeoff.

## **Conclusions**

### **General Conclusions:**

MIX is a bit of an outlier for the typical XBRL use case. While it may seem there is a lack of generality for our case, we hope there are some conclusions that have broad applicability.

- XBRL can be implemented quickly and easily by non-technical users. We built a taxonomy and embedded XBRL throughout our organization with limited training and resources, all in less than a year.
- XBRL has global application. We are using XBRL because of the flexibility it provides us in dealing with diverse sets of data. XBRL helps to organize these data across countries, legal forms and accounting standards, while still providing sufficient context to maintain key distinctions.
- Data-driven approaches and open reporting frameworks present challenges, but deserve consideration. The use of a data-driven model allows us to adapt to changes in the global microfinance sector and captures core benefits of XBRL. Adapting this framework can be complicated, but reveals useful information for comparisons over time and across countries.



### **Lessons Learned:**

- We do not need XBRL end-to-end (yet). At this stage, the primary benefits of XBRL for MIX have been on organizing and modeling data. We have not yet pushed XBRL content through our data presentation, but this is partially due to the limited current use cases within the microfinance community. Our anticipation is that the capabilities for aggregating and rendering XBRL information will only improve over time, and we can leverage these as they become available.
- Use work that others have done. There are many XBRL resources out there and many groups working to solve the same types of problems. Consulting with the broader community makes development easier and has spillover benefits for everyone involved.
- Build in flexibility. XBRL is changing rapidly. We need to anticipate changes and not paint ourselves into a corner in terms of solutions. We employed a data-driven approach to data modeling and a modular approach to our systems architecture to maintain flexibility.

### **Future Plans/Next Steps:**

- We plan to refine the use of our XBRL taxonomy. We have minor changes to presentation and some additional elements to consider. We also hope to model more non-financial information, especially relating to the social mission of some microfinance providers. We plan to better incorporate extension taxonomies to accommodate more variations in local standards.
- Our current model is to collect data directly from microfinance institutions. However, this is labor-intensive. We would like to leverage other naturally-occurring data flows within the microfinance sector (to regulators, to investors, from MIS providers) while also facilitating these flows through the dissemination of technology innovations.
- We need to investigate options to push XBRL further through our data process flow, in particular for aggregation and online rendering of XBRL content. We plan to investigate an XBRL data feed with a strategic partner early in 2010.