XBRL Is Not Just for Analysts and Regulators

Early experiences demonstrate how it can improve business communications

White Paper

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Introduction

Many businesspeople have never heard of eXtensible Business Reporting Language (XBRL). Even those who have seen the acronym or read about it would be hard-pressed to say what it is, much less explain how it works. Yet Ventana Research predicts that within five years, all large public companies in the United States will be using XBRL.

This advanced reporting language has progressed under the radar of most businesses. When it was launched in 1998, it was accompanied by a flurry of promotion declaring that it would quickly revolutionize the reporting of financial information. However, most of the effort since then has involved the painstaking task of putting together a workable worldwide set of standards and methods that are both robust and flexible.

Finally, though, XBRL is approaching technological maturity, and this ripening – along with growing understanding of the substantial benefits it will bring to users of financial and business information – will soon lead to accelerated adoption. Much of the initial interest was spurred by the idea of making it easier for public companies in the United States to communicate financial results to investors, but XBRL is now a global phenomenon.

Moreover, early indications suggest that XBRL will have a broad role in business communications, one that goes well beyond its initial purpose as a tool for securities analysts and financial regulators. For example, in the United States, the Microfinance Information Exchange is using XBRL to pull together accounting and other important data for measuring the effectiveness of these innovative lending institutions worldwide. Deloitte Australia uses XBRL to help collect client data, cut the cost of its auditing process and give clients financial statements in a form they will be able to use for their own tax and regulatory filings. In France, Umanis is creating ways to help its banking clients make better use of the data they supply to their regulatory agency, La Commission Bancaire/ Banque de France. We'll look at these early implementations in more detail below.

XBRL in Brief

First, let's be clear about what XBRL does and how it does that. XBRL facilitates the electronic exchange of business and financial data, regardless of how it was created, so recipients can view and work with it in whatever format they wish. To enable this, the sender attaches an XBRL tag to each piece of information in the financial filing. The number 389, let's say, has a tag that identifies it as the total R&D expense for XYZ Corporation for the three-month period ending April 30, 2007, expressed in thousands of U.S. dollars; the tag also confirms that the classification of R&D expense conforms to U.S. generally accepted accounting principles (GAAP). The tag also says that R&D and other operating expenses add up to a calculated number, "total operating expenses," which is subtracted from "gross profit" to produce "operating income."

These tags are, to use the technical term, metadata, and their structure and definition are set out in standard taxonomies. These taxonomies capture the definition of individual reporting elements (such as types of assets, sources of cash or expenses) as well as the relationships between elements within a taxonomy and in other taxonomies. The set of data that is transmitted is contained in an "instance document," which instructs the recipient how to read it. It will, for example, identify the specific taxonomy used in its creation and its location so the tagged data can be interpreted correctly.

The taxonomies do more than just identify the context of the numbers. They can validate that information related to a specific data item, such as revenues, depreciation or a patient diagnostic code, is structurally correct – that is, that the information is within a specific range of values (for example, positive numbers only) or has the correct alphanumeric string format (such as two letters followed by five numbers). It also automatically can aggregate specific sets of numbers (total assets, say, is the sum of all of the values of all of the assets of a specific entity at a specific date) so the user doesn't have to add these up.

Standard taxonomies now exist for the U.S. GAAP and the European International Financial Reporting Standards (IFRS), among others. The taxonomies are "extensible," which means it is easy for people to create custom tags when necessary.

Tags need not be only for accounting data. They could, for instance, cover the number of employees or customers broken out by business unit or any piece of third-party data, such as the high temperature at a location on a specific day. Or they could measure any outcome, including marketing campaigns completed, contracts signed broken out by size or loans in default.

XBRL in Detail

The purpose of this white paper is to illustrate some of the practical uses to which we expect organizations to put XBRL in the coming months and years. It can enable organizations to make advances in how they gather, use and share information. Using it, they can:

- comply with the increasing number of regulatory mandates.
- reduce the cost of gathering financial and nonfinancial information from both internal and external sources.
- broaden and deepen the information they can use for business purposes.
- improve the quality and timeliness of the analysis they do of that information.
- evolve the data they use more easily as requirements change over time.

Ventana Research believes that XBRL has significant potential to facilitate a range of information-driven processes in which data circulates both between and within companies. Although regulatory reporting is the most common application of the technology today, this report will look as well at how the technology is being used outside of a regulatory context.

Moreover, the data that companies manage with XBRL need not be exclusively financial. Indeed, today's enterprise systems routinely collect large quantities of nonfinancial information that is useful in running a business, yet our research shows companies fail to use it as extensively as they could. XBRL can be harnessed to make it easier to use that data – and use it correctly and consistently.

We also note that broad use of XBRL is not theoretical but practical. Leading-edge organizations are adopting it today as means of addressing real business issues, often because it is the most capable, most straightforward and least expensive approach.

First, however, let's look at how well XBRL actually has performed its role in regulatory compliance. Bank supervisory agencies worldwide have been using XBRL, some for several years, in ways that demonstrate its value in important business processes that must scale up to large numbers of users and large data sets. The experience at one of the best-known supervisory financial agencies in the world illustrates the achievement of concrete results with measurable ongoing benefits.

CASE ONE: Improving Regulatory Processes

The Federal Deposit Insurance Corporation (FDIC) is an agency of the United States government that insures bank deposits. One of its missions is to promote confidence and stability in the banking system. Like other supervisory agencies in countries around the world, it requires the banks it insures to file periodic statements of condition. Banks have been submitting filings electronically for years, so replacing these proprietary systems was one of the most obvious uses of XBRL.

In the FDIC's case, these statements are its quarterly call reports, which contain each bank's balance sheet, income statement and other supervisory information. Before XBRL, banks were not required to meet all of the reporting requirements; consequently, data quality was a concern because banks' electronic filings could contain mathematical, logical or quality errors. Each insured bank provides about 1,300 data items, and the FDIC performs some 1,800 edit checks on the call report data to ensure that there are no errors in math, logic or quality.

Before the new XBRL-based system was adopted, in a typical quarter the FDIC found approximately 1,000 basic mathematical errors in the filings and many thousands of errors in the business logical edits (for example, the beginning balance for the period must equal the ending balance of the prior period). Finding and resolving these errors consumed considerable time for both the banker and the FDIC analyst, which lengthened the period needed to publish the data.

Using XBRL addressed these issues and more. Because each piece of data carries a tag with a uniformly applied set of characteristics (documented in the taxonomy), the data is delivered to the FDIC in a consistent fashion. Since the process of creating the document filed by the financial institution includes validity checks, mathematical and business-rule errors have been all but eliminated. Substantially reducing these errors enabled the FDIC to cut its processing time from months to days, and people can access the data within one day instead of having to wait several days. In addition, with the time saved, the number of banks assigned to each analyst increased by 10 percent to 30 percent, and the FDIC also saved money by eliminating a proprietary value-added network because the submissions now can be sent using a secure Internet protocol.

While this example concerns a regulated industry filing homogeneous reports, the substantial value the FDIC was able to achieve can be available as well to many other types of business that need to collect information from different companies (or individual branches or business units in a single corporation); there, too, applying a data consistency check for mathematical or logical errors can speed the processing of data. In analyzing the reports, the FDIC has been able to evolve its process to be more like management by exception – looking for nonstandard items or events. It has all but eliminated the possibility that bank filings that require immediate attention will slip between the cracks while cutting the cost of routine oversight.

In light of the early efforts by the FDIC and other agencies that collect information from large numbers of major financial institutions within a country, it should not be surprising that the technology has been applied to very large numbers of the world's smallest financial institutions.

CASE TWO: Going Beyond GAAP Financials

Microfinance is the practice of providing financial services (credit, insurance and banking facilities) in very small amounts to poorer people in developing countries. In particular, it involves loaning small amounts to entrepreneurs who have no access to credit so they can establish, operate or expand a business. Aspects of microfinance go back centuries, but this specific practice has gained increasing attention over the past decade as an attractive alternative to large-scale development programs. Along with dramatically increased funding by microfinance lenders has come a need to increase the availability of information about their lending activities and the impacts of them.

The Microfinance Information Exchange (MIX) is a nonprofit organization created to increase the financial transparency and therefore accountability of microfinance organizations. The MIX Market, its Web-based information platform, collects from more than 1,000 institutions information that includes their financial data, audited results and data relating to their social impact (such as the percentage of women borrowers). Microfinance institutions can join to make information about their activities public and

to be able to compare their performance with other comparable organizations. Since MIX is a widely referenced resource, it must ensure the information is as clean as possible.

The IT challenge for MIX was to figure out how to collect and manage data from an increasing number of institutions in a way that both was efficient and would make it easy for these institutions (usually located in environments with limited IT resources) to provide this information. Because of its "double bottom line" approach (which incorporates nonfinancial and social impacts as well as traditional financial measures), MIX must collect and aggregate a wide set of data. Moreover, MIX needed to have a way to integrate the considerable store of information it had already collected, and it needed to establish systems that would make it possible to expand the range of data it collects from institutions as requirements evolve.
Since a microfinance institution may have slow or sporadic access to the Web, using XBRL-tagged spreadsheets turned out to be the best approach for MIX. Spreadsheets, for all their shortcomings, are universally used and an easy extension of the systems and methods these institutions are already using. XBRL makes it possible to maintain data fidelity in pulling the information from a spreadsheet into MIX's systems. It does not matter how the institution decides to structure its spreadsheet – whether it adds rows or columns, say – since each piece of data is tagged and therefore always "knows" that it is, for example, the total assets figure for year-end 2006. Since MIX uses a microfinance-specific version of the International Financial Reporting System taxonomy, the accounting data adheres to a broadly supported standard. Because XBRL is extensible, it enables MIX to create and integrate its own taxonomy for social reporting metrics. Extensibility facilitates the evolution of the information MIX collects and allows it to manage apples-to-apples comparisons over time.

MIX is in the final stages of developing its system and will open its XBRL-enabled system to participating institutions soon. While MIX does not plan to use the data validation capabilities of XBRL to a significant degree initially, that is another feature of the technology that can simplify managing data submissions from a large number of unevenly trained sources.

The MIX example shows that XBRL can help organizations manage data collection from a large number of disparate sources more easily and over a long period of time. As noted, it can be tailored to the requirements of a specific entity (such as the social reporting requirements for MIX) yet still conform to broader standards (IFRS or U.S. GAAP for accounting data). It gives the organizing entity considerable leeway to ease the burden on those supplying the information without making it too onerous for them to store, analyze and report on this data.

The taxonomy used to organize and manage the data definitions and structures for a specific entity can (and should) be set up to handle an orderly evolution of the information the entity will need. MIX is an early example of how organizations other than financial regulators will use XBRL to manage the exchange of data between multiple types of entities

(corporations, nonprofits, nongovernmental organizations and so on). One reason is because XBRL allows the data collection process to have low overhead and take a lowest-common-denominator approach.

These two instances involve financial institutions. XBRL, however, has the ability to help corporations of all sizes communicate their financial data to third parties in ways that save them time and money. While any company will benefit, XBRL's accessibility and cost characteristics make it an especially attractive option for midsize companies.

CASE THREE: Speeding Operations and Saving Clients Money

Deloitte Australia is engaged in a program to use XBRL in preparing financial statements for its clients, which are mainly closely held midsize companies of 100 to 1,000 employees. The program, now in its pilot phase with about 30 companies participating, takes their accounting statement data and automates the process of putting it into XBRL format.

The project has several aims. One is to substantially reduce the cost of processing incoming financial statements from clients. Deloitte estimates it can reduce this cost as much as 70 percent by automating the conversion of its clients' data submissions into a standard, useful format. Recall, too, that XBRL can be used to perform validity checks on these submissions, eliminating the need for trained accountants to do the basic checking to ensure that amounts foot and "cross cast." The second is to facilitate all downstream activities, such as auditing and creating financial statements, as well as filing tax and other regulatory documents.

For years it has been possible to take financial statement information from companies in electronic form and process these into a standard format. However, in most cases that has not been practical. Translating the myriad formats of accounting data from third parties into a common, consistent data set governed by hard-coded business rules is a process that is expensive to set up and maintain. It is worthwhile only if the data can be used repeatedly.

For an auditing firm to convert disparate accounting data from clients into a consistent but proprietary format might provide some savings of time and effort, but the usage usually is too limited to warrant the investment. XBRL makes the automation process worthwhile because it is far less costly to establish and more importantly because the data will be in a format that ensures its reusability for many purposes and for many types of users over many years. In this case, not only does the cost of collecting the data go down, but the companies then have their detailed financial statements in a format that can be put to multiple uses.

For Deloitte's Australian clients, having audited financial statements available in XBRL fits well with their national government's Standard Business Reporting (SBR) initiative, which is based on XBRL. The government's objective is to cut the time and effort companies must

spend complying with reporting requirements by standardizing the scope, definitions and forms of data organizations must provide to government and regulatory entities at all levels. This would reduce the administrative burden governments place on companies by establishing a report-once-use-many-times capability.

XBRL simplifies this task because it can automatically handle multiple accounting treatments, depending on the requirements of those receiving the information. For example, in most countries generally accepted accounting principles require a company to create a provision for bad debt expense at the time it extends credit to customers. However, for tax purposes this expense cannot be recognized until the debt is actually written off. Using XBRL, financial statements must be prepared only once because the tax books will "know" not to include provision for the loss and recognize only the debt actually written off.

Moreover, the Australian government envisions a phased rollout of its SBR initiative that ultimately will cover all levels of government and therefore will span a wide range of both operating and financial information types. Again, XBRL is well-suited to this task because it can add and evolve reporting taxonomies over time to match changing requirements at less cost than hard-coded proprietary systems.

Ventana Research believes that the task of collecting and transmitting financial data in XBRL format is likely to become much easier over the next five years as accounting software vendors (even ones who serve small businesses) build XBRL reporting capabilities into their products. Until now, software companies have been reluctant to invest in this capability because relatively few organizations used XBRL, and conversely the lack of built-in capabilities has been an impediment to broader adoption. The Deloitte Australia initiative will provide a test bed for demonstrating XBRL's cost-effectiveness to audit firms and their clients.

CASE FOUR: From Regulatory Burden to Benefit

Events have conspired to complicate the reporting requirements for financial institutions, especially in Europe. The requirements, in turn, increase the burden of reporting on those subject to them. Fortunately, XBRL can help lighten the regulatory burden and make it possible to turn this necessary investment into a value-adding business purpose.

A more uniform, comprehensive and sophisticated approach to regulating capital adequacy is forcing banks and other lending institutions to increase the information they provide to regulators by orders of magnitude. XBRL is playing a key role in helping the regulators to absorb this deluge of data. It simplifies their task by enabling them to work with the data in ways that were impossible before. In particular, they can use it to manage compliance by exception rather than sampling, and to build more flexible regulatory structures. What's more, XBRL also enables financial institutions to use this new regulatory task to create a faster, more efficient management reporting system. Banc Accord, a consumer-focused financial services company in France, illustrates this possibility.

The key driver behind the explosion of regulatory data is Basel II, a compact intended to establish international banking standards. Implemented worldwide, its objective is to ensure the highest possible quality of capital adequacy in an increasingly interdependent worldwide network of financial institutions. That is, Basel II is designed to ensure that banks and other lenders allocate their capital with greater sensitivity. As a global initiative, it aims to standardize the rules for capital adequacy to prevent credit providers from using the most lax available jurisdiction as the venue for their riskiest lending. Achieving this goal requires institutions to measure, and regulators to monitor, a comprehensive set of credit and operational risks. (Operational risks relate to how well an institution manages its processes, people and systems.)

Basel II is forcing institutions to report a far more complex set of information about the structure and nature of their risk assets and operations; they have gone from reporting dozens of numbers to many hundreds or thousands. While Basel II establishes a minimum set of data requirements, national sovereignty considerations allow individual countries to retain some of their specific reporting requirements. Thus, institutions must create multiple comprehensive reports for each jurisdiction in which they operate. For example, a bank with headquarters in Country A and a small lending institution in Country B not only has to provide B with the subsidiary's figures but also has to recast the parent company's data to fit B's requirements. Ongoing business integration in the European Union has given financial institutions, even midsize ones, presences in multiple countries – and therefore complex reporting requirements.

Umanis is a consulting firm focused on business intelligence, customer relationship management and e-business. The company, headquartered in France, has operations throughout Europe. Given its information technology capabilities, it is not surprising that it has been one of the first to exploit the potential for XBRL, working with financial institutions to automate their reporting requirements. Banque Accord is one of these. The company, a subsidiary of international retail giant Auchan SA, offers its customers consumer credit, personal loans, savings products and life and other personal insurance products. The bank has offices in six countries and serves three million European customers.

Previously, Banque Accord provided regulators with information in reports prepared using spreadsheets. Before Basel II, regulatory reports required a limited set of data, so spreadsheets could handle the task. However, spreadsheets quickly break down in today's complex and evolving regulatory reporting environment. Since the context of spreadsheet numbers is externally provided by row and column headings, the data lacks referential integrity. Because formulas and links are easily corrupted, desktop spreadsheets lack data integrity. These two inherent technological limitations mean that with the increased amount of data a bank must provide, each iteration of reporting requirements for each jurisdiction requires a substantial amount of work. And since these are regulatory reports, there is no tolerance for errors.

In contrast, working with the regulatory data in XBRL format means the business logic that connects the accounting information with the reporting requirements is stored and maintained in the taxonomy, which ensures consistency and conformity with the specific yet evolving national reporting requirements regardless of which systems the bank uses.

Umanis is working with Banque Accord to explore how the bank could leverage its investment by creating an XBRL reporting capability for internal requirements. It will harness the data, the data structures and the systems to perform sophisticated management reporting in a way that's flexible. Several important factors complicate this task.

- Management reports have a different purpose – and therefore different structures using different sets of data – than the regulatory reports.
- While the management reports use most of the same data elements the regulatory reports use, they must add elements, including both financial and nonfinancial metrics.
- Regulatory reports evolve over time, but management reports are more dynamic. Therefore, systems must be flexible enough to handle rapidly changing reporting requirements and to do pro-forma look-back and look-forward analyses.

But because the data is already in XBRL format, creating management reports is much simpler. The bank will be able to quickly create reusable report templates that harness XBRL to incorporate the necessary information. It can change these templates as requirements evolve, adding new information or more granular levels of information (or eliminating data points) relatively easily over time. Being able to continue to work with existing tools and skills (that is, Microsoft Excel) makes rapid adoption easier and more agreeable than if users had to adapt to new software for visualization and analysis.

Banque Accord's story suggests how a company could transform a regulatory burden into a business benefit. Having made the investment in XBRL in response to the complex new reporting rules, the bank is considering the use of the same technology to produce regular management reports in a more timely and accurate fashion. Because the business logic that governs what and how information is reported is contained in a flexible, extensible taxonomy, the bank will be able to present the same basic accounting and operational information in whatever format a user requires – whether that user is one of several financial regulators, senior executives of the bank or a manager of a business unit.

Taking the Next Steps

These case studies illustrate what has been achieved by XBRL in improving the speed and value of business communications. The FDIC's experience confirms that XBRL is a workable solution for important business issues. The efforts by the Microfinance Information Exchange, Deloitte Australia and Umanis point to the potential XBRL has in transforming a regulatory burden into a more comprehensive and efficient improving the quality and efficiency of data exchanges between and within companies.

XBRL can be applied to many more areas than mentioned here, including the routine financial statement submissions by borrowers to their lenders and health care billing. XBRL is no longer something that will happen in the future; it is a reality today. Corporations and other organizations can and should find practical applications of the technology. The potential scope is limited only by people's imaginations.

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