

The Business Case for Information Management

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The Business Case for Information Management

Many organizations struggle to build a convincing business case for the investments needed in information management. In this analysis, Frank Buytendijk examines what information management means, and describes a complete spectrum of business cases, ranging from tactical cost reduction to transformational impact on the organization's business model.

INFORMATION IS AN ASSET

Just like every other asset in the organization, be it capital, labor, materials, or facilities, *information* needs to be managed. That alone is a strong business case for information management, since without reliable and timely information there simply is no way to sustain the business. This is the value proposition and *raison d'être* for business intelligence (BI) and performance management (PM)—the markets in which Oracle plays an important role.

However, there are multiple goals for managing information and many ways to do it. What these ways have in common is that the business case is usually not found in information management itself, with the exception of cost savings in inefficient information management practices. Instead, the business case is found in how information management *supports* the business, like with any other asset. Capital needs to be managed in order to invest it in business activities, as determined by management. Human Resources is responsible for managing our human capital and helping make sure that every employee delivers to his or her full potential. A range of departments is responsible for managing the value creation process, making sure that the facilities and materials to create products and services are used both efficiently and effectively. Managing information is no different: it should support business processes.

INFORMATION MANAGEMENT IN MANAGEMENT PROCESSES

One category of business processes, next to transactional processes, is the category of management processes, as described in Oracle's strategy-to-success framework¹. In this white paper, I will focus on various ways of building the business case for information management within the cycle of management processes. In this context, I define information management as all processes and technologies that

¹ Management Excellence: How Tomorrow's Leaders Will Get Ahead, Oracle Thought Leadership White Paper, 2008

help create high quality information, where all elements are clearly defined and can be combined with each other in a meaningful way, in order to support the management processes. Although there is much to be said for clearly defining the difference between “data” and “information,” for ease of understanding I will not make that distinction in this Expert Insight.

At Oracle, we distinguish various subcategories of information management as follows:

- Data quality – to create high quality information
- Metadata management – to clearly define all elements
- Master data management – to be able to combine information from different domains and sources on all levels of aggregation through a common set of hierarchies
- Data integration – to bring the data together (physical or virtual) for all management processes to use

Data quality covers all processes and technologies to make sure all relevant information is complete and correct. For this, it is necessary to have a range of controls from the point of data capture all the way to signing off the annual report. Data quality management needs to be:

- *Preventive*, having processes and systems that do not allow any data capture mistakes;
- *Detective*, to check if this is the case, as one may not have control over all necessary data; and
- *Corrective*, to make sure problems with data quality are solved.

Metadata management consists of all processes and technologies aimed at creating the “single version of the truth” for the definitions of all relevant business entities.² The more a certain term is related to the core of the business, the more definitions of it there will be. For metadata management, an organization requires a repository, to be used by all management processes, in which the definitions are stored, harmonized, and efficiently be maintained over time.

Master data management (MDM) is a relatively new addition to the field of BI and PM. According to Gartner, MDM is defined as “the consistent and uniform set of identifiers and extended attributes that describe the core entities of the enterprise—and are used across multiple business processes.”³

Examples of these core entities would be departments or cost centers, customers, products, a central time table, accounts, and, in short, every list of things needed to do business. MDM is closely related to metadata management. For instance, where

² *Bytendijk, F.A. The Myth of One Version of the Truth, Oracle White Paper, 2008*

³ *White, A., Newman, D., Logan, D., Radcliffe, J., Mastering Master Data Management, January 2006, G00136958, www.gartner.com.*

MDM focuses on standardizing product codes, metadata management will focus on the definition of the term “product” itself.

Data integration consists of a wide variety of techniques to enable companies to access, integrate, transform, and move any type of data between a source and a target system, in any frequency, and in any format, thereby eliminating data fragmentation across the enterprise. Sometimes this is a physical process, storing data in a data warehouse or data mart. However, it can also include data federation in which data resides in multiple systems and is referenced in an on-demand fashion. It allows organizations to separate transactional processes and systems from analytical processes and systems, while at the same time keeping those different processes and systems aligned.

BUILDING THE BUSINESS CASE

As mentioned earlier, the business case for information management is no different from that of using any other asset in the organization: it is aimed at enabling business processes, and in the context of this paper, *management* processes. With that in mind, it is relatively simple to build the business case. However, there are multiple ways to do this. Obviously, not every organization will have the same strategic view. Some organizations will view information as rather tactical, something that needs to be in place at a reasonable cost and effort, so that management can focus on its strategic priorities. Other organizations see information management as making a difference, and book transformational results. Figure 1 shows an overview of some business cases Oracle has seen and has built with our customers. It is not meant to be complete, but to provide an indicative view.

	Business	IT
Tactical	Making changes easier, faster, less error prone, and less costly	
Strategic	Closing the books faster	Enabling EIM
Transformational	Value chain integration Mass customization	Enabling SOA
Foundational	Business/IT alignment Framework for IT, content for business	

Figure 1: Information Management Business Cases

MAKING CHANGES EASIER, FASTER, LESS ERROR PRONE AND LESS COSTLY

Many information management processes are fairly unstructured. Whenever there is a change within the business, the information that is used changes. New product codes need to be made available, departments come and go within the corporate hierarchy, and the customer database undergoes change 24/7. Often, making these changes in a multitude of systems is still a very manual process, involving multiple

forms (at least one for each system) and many e-mails. Triggered by these changes, managers and analysts continuously come up with new reports, with varying definitions of the terms used. Frequently, these reports are Excel-based, and contain no checks on the quality and completeness of the data.

What's more, a lot of the costs involved in these processes are hidden. Senior management can spend too much valuable time comparing different reports with different views on the business, and debating the origin, composition, analysis, and accuracy of the information. Knowledge workers can spend countless hours creating reports and reworking them if errors are found. And operational managers may fill in many different planning forms, often repeating the same information—with only slight differences—since the various plans are not connected.

Having a single management system, with a central repository for metadata and master data, and with approved data, creates a more reliable process. In a mid-sized organization, this can easily lead to tens of thousands of dollars in cost savings.

For large organizations, the savings are significant. Still, saving costs in management processes is a tactical benefit, it does not improve the business itself.

CLOSING THE BOOKS

There is real strategic value to closing the books faster. Not only does it create earlier feedback to senior management and give controllers more time to analyze, but most importantly, it allows organizations to file their external reports earlier. Reporting fast and with confidence is recognized by analysts and shareholders as a sign of being in control and competent, and it sets a benchmark for the rest of the market.

Information management offers a substantial contribution to the fast close. Estimates vary, but typically 40% or more of time spent on closing the books is spent on manual reconciliation between various administrations. Often, the data is not comparable because of differences in the chart of accounts, or different views on the organizational hierarchy, or different products structures, or even on something as basic as different timetables. Also, the terms used in the various data streams often have slightly different definitions, requiring translation steps to make it possible to add up the data. Lastly, certain data elements often are missing or not correct and need to be fixed manually.

Eliminating these manual steps using all kinds of “homegrown” spreadsheets and replacing them with a single management system leads to a significant reduction in time needed to close the books. This time reduction can be realized even before thinking about redesigning the management processes to achieve a faster close or before implementing a complete new accounting system.

In addition to the cost savings, a more strategic benefit is gained: more accurate and timely numbers can be reported with confidence. Improving the organization's

public image, leading to a higher valuation, is obviously, an extremely tangible business case.

ENTERPRISE INFORMATION MANAGEMENT AND SERVICE-ORIENTED ARCHITECTURES

Another strategic business case is aimed more at the CIO (Chief Information Officer). Many IT departments are in the process of building and implementing an Enterprise Information Management (EIM) infrastructure. At first glance, it might seem strange to say that “the business case for information management is enterprise information management.” However, by EIM I refer to an infrastructure that allows various systems to interchange data in a real-time fashion. This impacts management processes and business intelligence too. EIM changes the role of the data warehouse, making it part of a “closed loop” architecture. This means the data warehouse not only receives information from various sources to integrate and enrich it for the purposes of management information, but also, on the granular level, it feeds data back to the various source systems to offer, for example, an integrated customer view. Data can only freely flow between systems if they share the same definition and the *same* master data.

This way of creating a tightly integrated but loosely coupled portfolio of systems is enabled by a service-oriented architecture (SOA). Within an SOA, various system components interact in an independent way. A component-based approach to systems architecture requires a separation of process and data, so that the various components can make use of common data. This exactly mimics our definition of information management, giving it a transformational task in our IT architecture. The business case for such an IT architecture lies in flexibility (being able to perform multiple tasks) and agility (being able to change those tasks). This is necessary to a business transformation that is very IT driven, mass customization.

MASS CUSTOMIZATION

In many industries business models are evolving into what is called *mass customization*. This means that through a standard mass production process, many different product configurations can be manufactured, to create highly tailored products. It combines the best of both worlds of mass and bespoke production. But this is not all. In many cases, the customization is driven by the customer, who configures the product or service him or herself. This means that organizations, in part, don’t drive their own processes, they are driven by the customer.

In the automotive industry this is already common practice: every product on the production line has its own specific configuration. Mass customization is also happening in financial services, where insurance policies are broken down in individually priced components, from which customers can build their own insurance packages, and select certain amounts of coverage versus certain premiums. And most mortgages consist of various insurance and investment components, as well, often even product components from other financial

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institutions. Examples can also be found in the fashion industry: for instance, there are Web sites where you can design your own sneakers based on various product components. Mass customization already is one of the most important business model innovation trends for the years to come. For example, this model has a huge impact on pricing (an important management task), since—in principle—every transaction has different characteristics. This means that every product component needs to be clearly defined, as well as which product components fit together, and which add-on services can be sold on top of which product configurations. The component metadata and master data become the primary drivers for the complete business model and is placed in the heart of all value creation. Even more, with the customer driving the process, data quality needs to be spotless.

Without a strong information management strategy, this transformational innovation cannot take place. The value of information management can be measured in millions of dollars.

BUSINESS AND IT ALIGNMENT

The problem with centralized processes and systems is their lack of flexibility, the business needs to rely on IT to make changes. With numerous changes in metadata and master data every single day, inflexibility does not make for efficient processes. However, the problem with decentralized processes and systems is the loss of alignment. Very quickly there are more “versions of the truth” than can be counted.

Implementing a management system for the business cases I’ve described needs to be done in a smart way. *Both* IT governance requirements for control and business governance requirements for flexibility need to be fulfilled.

A smart information management initiative separates these two forms of governance, but combines them within a single environment. This leads to significant, yet somewhat intangible benefits. IT is responsible for providing a centralized framework for metadata management, master data management, and data quality management. It tracks an audit trail on all changes, and makes sure there are no compliance issues with imposed regulations. IT is also responsible for an efficient process.

However, the business users—the ones that are authorized—should themselves be able to model the metadata and master data, such as formulae of performance indicators and drill-down hierarchies. It provides IT with a good process for control, and the users with the flexibility to maintain the master data and the various hierarchies they need.



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