

Making a Business Case *for Single Sourcing*

JoAnn Hackos and Tina Hedlund

Copyright © 2001 by The Center for Information-Development Management.
All rights reserved.



To sell the idea of single sourcing in your organization, it is important to take a holistic view of the benefits, and one of the best ways is to take the Balanced Scorecard approach. The book, *The Balanced Scorecard*, details how to make your case from a customer perspective, an internal-business-process perspective, and a learning and growth perspective in addition to the financial perspective, which many organizations focus on without much thought. A solid and balanced business case allows you to gain management support and reach your goal while addressing each of these important issues.

Many in the technical publications industry would like to implement a single-sourcing strategy, and although they can see the potential return, they feel they have little chance of justifying the initial start-up costs or the time and effort needed to plan a transition into single sourcing. By addressing each of the Balanced Scorecard aspects from your organization's unique perspective, you may find the justification easier than you first thought.

Financial Perspective

Because the financial perspective often gets the most attention, it is the logical place to begin. First, you must understand that the point you make in your business case will depend on what growth mode your company and your particular projects are in. Your department may be documenting cutting-edge hardware or software in addition to maintaining several reams of legacy documentation for mature products. What project you decide to propose for a single-source initiative will influence the success of and the arguments you include in your proposal. Projects in a growth or sustaining mode are much better candidates for a single-source initiative than projects in a harvesting mode.

Projects in growth mode are expanding so fast that they often don't have problems obtaining funds. The initial investment is seen as one that will be returned over a long period of time.

Sustaining projects “are expected to maintain their existing market share and perhaps grow somewhat from year to year”; thus, financial analysis in a sustaining environment should focus on

- ◆ Return on investment
- ◆ Return-on-capital-employed
- ◆ Economic value-added estimates¹

Harvesting projects involve mature products that are not being expanded but are expected to earn a steady income. In these situations, long-term goals and savings are not valued. Short-term projects and savings will be valued more; therefore, projects in harvesting mode may not be successful candidates for single sourcing.

You must, therefore, select single-sourcing projects carefully. If you begin with projects in growth or sustaining modes, you are much more likely to get the initial start-up funds. Once start-up costs are invested and processes are defined, you can make a business case for the inclusion of projects that are in harvesting mode. Once you have a content-management system and single-source processes in place, goals and savings will be more short-term and fit with the financial goals of harvest projects.

For projects in growth or sustaining modes, an effective way to demonstrate a return on investment is to show potential cost savings associated with translation. Although departments have historically saved costs through translation memory, they may fail to see significant returns. For translation memory to work effectively, the information has to be consistent enough to be “remembered” in a database of previously translated information. A content-management system used with a solid single-sourcing process enforces consistency, and departments that use single sourcing and translation memory realize better returns than those that they use translation memory alone.

Two of the most impressive cases for cost savings in association with translation are J.D. Edwards and Tweddle Litho Company, a company authoring manuals for the automotive industry. (For more information about translation and the Tweddle Litho Company read the article, “From Emissions to On-board Data,” in the April 2001 issue of *Best Practices*; for more information about translation and J.D. Edwards see, “How to Successfully Implement Document Management,” in the October 1999 issue of *Best Practices*.)

¹ Robert S. Kaplan and David P. Norton, *The Balanced Scorecard: Translating Strategy into Action*, 1996, Boston, MA, Harvard Business School Press, ISBN 0-87584-651-3



TRANSLATION

Using J.D. Edwards' internally grown product, Content Manager, Ben Martin claims a 290 percent return on investment and savings of \$3.5 million per year by single sourcing their content into three deliverables and seven languages.

The return on investment is equally impressive at Tweddle Litho Company, which, from one release to the next, translates only 15 percent of its revised information into 20 languages. Although Tweddle may have seen an impressive return on investment if they had used translation memory alone, their returns are likely to happen only if the information is authored in a very consistent manner. Single sourcing and information reuse force consistency that is difficult to obtain when authors are working on several related information products. Tweddle still uses translation memory for 10 percent of its information, but the benefits from translation memory are limited because much of the new information is unique and isn't in the translation memory database.

Customer Perspective

Although cost savings can be realized through careful planning and implementation of single sourcing, one of the most important benefits of single sourcing is the ability to create customized, customer-driven information. If you can demonstrate that customized information will result in a competitive advantage, you will have a strong business case in line with many corporate vision statements. If you can demonstrate the adaptive nature of single sourcing, you will be in a much stronger position to deliver information customized to a specific user.

Companies like weather.com are already using customer information to customize Web output. After finding that many of their users access weather information to determine whether they should golf or garden that day, weather.com decided to customize their output to reflect that use. Most of the information provided in these areas of the site is the same as in the standard portal, but it is delivered in a *different* way that makes more sense and is more usable in the context of its use.

Ericsson authors use “push the button” technology to determine what information is sent to each of their customers. By comparing customer information to the information in their database, they are able to deliver customized documentation specific to their users' needs in a fraction of the time that would be required to customize it manually.

Single sourcing (see Object-Oriented Delivery on page 3) offers the ability to meet customer needs on many levels. It also allows for future growth and adapt-



ability. To deliver information in this way, you must know your customers and their needs. You must focus on your intended market in making your business case and demonstrate how single sourcing will serve your customer base and contribute to increased customer satisfaction and market share.

Object-Oriented Delivery

Object-oriented technology has become a catch phrase, yet many of us still aren't sure what it is or how it will help information delivery. Object-oriented technology provides a way to adapt quickly to a changing marketplace. Instead of authoring content multiple times for delivery into multiple media, XML allows you to show or hide information appropriate to that deliverable during production. Obviously, to take advantage of that capability, you must put a lot of thought and planning into the initial design of the information.

The properties of object-oriented technology that allow information to be customized are *polymorphism* and *inheritance*, but don't be intimidated. These words are easy to understand.

Polymorphism means that different programs can operate on object-oriented information (information marked-up in XML) and return different results based on the required output. For example, if you structure your information so that a reusable piece of information contains a conceptual overview, procedures, and a warning, the output might be different if displayed on a

Web server (the end user sees all the information) or if processed into online help (the conceptual information is removed or not displayed). In another example, information accessed by a program used by technical support could display certain procedures as part of the problem-resolution process. Those procedures plus additional information could be included in the paper documentation. Polymorphism is also the reason you no longer have to foretell the future and determine how your information will be delivered. The information is accessible by many means and can be used no matter what future needs may arise.

Inheritance allows you to define characteristics in a class of related information and identify special cases that retain all the attributes of the first but also have special characteristics. For example, you may document procedures for maintaining a piece of hardware, but the configuration parameters are different based on each customer. The procedure is the same, but you have a special implementation of that information, which includes customer-specific parameters. When implemented, information deliv-

ered from a Web server could deliver the procedures with the customer-specific configuration parameters without you having to mark up that piece of information with every piece of associated metadata (for example, that the procedure is for this piece of hardware, about this procedure, and is specific to a certain customer).

Information would inherit the first two characteristics and only need to be noted as a special case of "procedure." In this way, you can start creating hierarchies of inter-related information. This same capability allows you to effectively deliver information releases on a continual or streaming basis. Information for release 1.1 would be a special case of release 1. All the information related to release 1 applies to release 1.1 except in the case of new information or out-dated information, which would become special cases but still be related to release 1.

As you can see, the properties of object-oriented technology allow you to meet many of your customers' needs: more methods of delivery, customized documentation, and more timely documentation. □



Internal-Business-Process Perspective

After identifying the customers' needs that single sourcing will serve, you must illustrate the operational efficiencies that will occur and the post-sale opportunities that will emerge.

INTERNAL EFFICIENCIES

Internal efficiencies refer to changes in processes that contribute to cost savings. If you are going to move to a single-sourcing strategy, what processes will it streamline, and where can you expect to free up time and energy?

Changing the way authors develop content is the first step in efficient content development. Many departments with a viable single-sourcing strategy in place have found that the only way they can ensure content reuse is to assign authors to knowledge domains rather than to books or whole products. In the case of Tweddle Litho, authors create content based on a particular automotive system, such as heating and cooling. Authors can easily identify shared and common information because they are the subject-matter experts for that system.

If you are maintaining multiple information products that are similar but not the same and tracking that information manually, you can expect to free up time with the implementation of a content-management system. Content-management systems automatically track information and, typically, use robust search engines that can search both the full text and its associated metadata.

Another activity where you can see process improvement is editing and subject-matter-expert reviews. With a content-management system like Content@, PDFs are created as part of the workflow and sent to be edited. Within the PDF documents are the modules that are common to all and the modules that are unique to a particular automobile. The unique modules are identified by automatically generated marginal notes so that the editors and reviewers are clear about the distinctions. If, for instance, you produce three models of product that vary slightly, instead of editing three different manuals, your editors and subject-matter experts review the common information only once.

Opportunities to share and reuse information from other departments is another way to make internal processes more efficient. The most natural information exchange and greatest opportunity for collaboration is between technical documentation and training. Although the delivery differs, the content is very similar. Additionally, technical publications can benefit immensely from the constant customer contact of the training department, which will increase overall information



quality. Within your organization, there are many opportunities to collaborate and facilitate information reuse. You must talk to all departments to determine what information they use and how they use it so that processes can be streamlined and reuse facilitated.

POST-SALE OPPORTUNITIES

Once your information products are in the customers' hands, you must identify in your business case post-sale opportunities to increase information quality and solicit customer feedback. The potential exists to include information products in post-sales activities such as technical support and Web delivery.

Not only do you have the ability to share information with technical support, which departments normally do, but there is also the opportunity to receive information from technical support. Joint information development with technical support should increase the quality of the documentation and possibly reduce technical support costs.

Implementing innovative customer feedback options on the Web is another post-sales opportunity. Some companies are providing unique identifiers in their content so that when users click on a link to provide comments on content, the comments can be traced back to the specific information the user is referencing.

Single sourcing also supports the ability to rank search results by the usefulness of the information to existing users. Users perform searches and then rank the results with one click of a button to indicate whether the search produced the information they were looking for. Using the data produced from such automatic feedback could further refine indexing and metadata definitions to provide a valuable online experience for customers.

Learning and Growth Perspective

To deliver innovative information solutions, it is important to realize how single sourcing will impact future learning and growth opportunities within your organization. You must emphasize in your business case current opportunities lost when employees are not challenged to work outside their comfort zone. In a single-sourcing environment, employees will be challenged to

- ◆ Learn new technologies, such as XML.
- ◆ Become subject-matter experts in a knowledge domain.
- ◆ Learn to create more structured and usable information.



- ◆ Become specialized in specific areas like information architecture and Web-based production.

This knowledge will open doors to other opportunities to innovate as employees become more knowledgeable. Employees become more valuable to your organization as they develop significant expertise in new technologies and best practices. Innovation does not occur in a stagnant environment. Providing innovative work opportunities motivates your best employees, the ones you want to retain.

Conclusion

The business case you build must be specific to your department, your organization, and the market and customers your products serve. Many of the ideas presented in this article may be used to make your case, but they must be tailored to your environment to be effective. The true benefits of single sourcing will be identified by your customers and your staff and will be the driving force for the arguments you present in your business case. □

