

SUMMARY

- ◆ Provides general guidance on how to build a realistic and persuasive business case
- ◆ Presents a detailed case study to demonstrate how to prepare the different components of a business case
- ◆ Discusses additional issues to consider

Back to Fund-amentals: The Business Realities of Funding for Performance Support Projects

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INTRODUCTION

Although electronic performance support systems (EPSSs) sound like exciting projects to technical communicators and instructional designers, many proposed EPSSs stay on the drawing boards because the organizations for whom they were designed choose not to fund them.

In general, EPSSs require more up-front investment than traditional documentation and training. That additional expense, sometimes increasing up-front expenses by several times, could be enough to stop a project unless the designers can explain how the organization can benefit from this additional investment. In fact, most often, these organizations decline to fund the proposed EPSSs because the financial benefits of the EPSSs are not explained, and so the proposed EPSS is perceived to exceed the cost of designing and developing it. In other words, the businesses do not perceive that the EPSS is a good investment of their money. They can earn a higher return on other "investments."

In many instances, the EPSS would show a benefit to the organization, but the designers have not presented a sufficiently detailed or persuasive case that demonstrates that benefit. This persuasive case that compares the costs of building an EPSS with the benefits it will bring the organization is called a business case. The difficulty of building a business case for any kind of information system or EPSS tool should not be underestimated. "In a recent survey by Coopers and Lybrand and Zinn Enterprises, 72% of recent IS [Information Systems] expen-

ditures were justified based on supporting the strategic initiative while only 8% were justified based on ROI" (Morrissey 1998, p. 74).

Because developing a successful business case is essential to ensuring that a proposed EPSS is built, any discussion of EPSS design must include a discussion on how to prepare a persuasive business case for EPSSs. Developing a business case for a proposed EPSS is a complex activity. It involves more than preparing reliable cost/benefit equations. It also requires that designers follow stringent methodologies, address both financial and nonfinancial barriers (such as technical limitations, organization readiness, end-user resistance), and address the volatile business environments in which most organizations operate.

Furthermore, preparing the return-on-investment studies and preparing cost-benefit analysis reports and other research that form the business case are time-consuming activities, often involving more staff resources than a typical technical communication or training department has available, especially when designers are also assigned to other projects that have tight deadlines. In fact, some organizations may see this as a chicken-and-egg conundrum, having to prove that the solution will deliver a return on investment before it can be built. At the same time, the organization does not have either the experience base or

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hard data to build that case, and must build the solution to prove it has a return on investment. This conundrum can lead to analysis paralysis or jumping headfirst into a project, eyes closed and fingers crossed.

This article explains how to build a realistic and persuasive business case using the data available to you. It first provides some general guidance on how to build a business case. Then, it presents a detailed case study and, in doing so, demonstrates how to prepare the different components of a business case. Last, it discusses additional issues to consider when preparing business cases.

BUILDING A BUSINESS CASE

By definition, the business case is a formal request to a project sponsor that articulates the business vision and outlines expected costs and benefits. “As a prospectus for a mutual fund indicates the assets, liabilities, opportunities and threats of a potential investment, so a business case identifies the costs and returns of a proposed project, and compares it with other possible investments” (Carliner 2000).

Specifically, according to Carliner (2000), a business case should include three major components.

Constraints and Criteria. *List all the constraints affecting the project, as well as the criteria for comparing among alternatives. Constraints include the traditional business constraints of schedule and budget. Also list quality constraints. For example, for [an EPSS intended for sale], its visual appearance must be perceived as stronger than that expected of [an EPSS] intended for internal use.*

List technical constraints. For an online learning course, consider requirements for authoring and programming (for example, some organizations only use Macromedia Dreamweaver), and delivery (such as “users will take this EPSS over a dial-up connection”).

Finally, list and prioritize among criteria. For example, of schedule, cost, and quality, which is most important (note, all three cannot have equal weight despite belief to the contrary).

All Relevant Alternatives. *Research each possible option for a given situation. Show how each addresses the constraints and criteria for a project. For an [EPSS] program, that might mean researching the option of traditional [instructional and support media such as training, documentation, and technical support].*

Complete List of Component Costs. *A component cost is a partial cost of a project, such as costs for design services, authoring software, and registration fees for training. One of the concerns about many proposals for learning projects is that they inadvertently omit one or more of these costs.*

For example, development costs for classroom courses are admittedly lower than those for most [EPSS] projects, but, [with travel and time away from work,] delivery costs are much higher. Some business cases focus only on development costs. Others omit some key delivery costs, such as the reduced time usually required to [perform a task with an EPSS].

Provide realistic estimates of component costs based on research. For example, use salary surveys to calculate labor costs and contact publishers and resellers to estimate software costs.

List costs in a table, so sponsors can compare the component costs for each alternative side-by-side. Note, too, that some costs are not financial. Anticipate the response to each alternative and identify them in the business case).

The most critical point in determining funding is the comparison to other possible investments. An organization could invest in a proposed EPSS. But it could also invest its limited funds into a larger staff for the customer support line, increased marketing efforts, higher salaries for personnel, or increased salary and benefits—or just place the funds in a savings account. So a designer must collect more than information on the costs of the EPSS when preparing a business case.

So the designer must also realistically but persuasively outline the business benefit. Specifically, designers can make one of two types of business cases for an EPSS: cost avoidance and return on investment.

◆ **Cost avoidance** business cases explain how an organization can contain its expenses by avoiding costs that it currently incurs. This is the easiest case to demonstrate. For example, a business case for an EPSS that is based on cost avoidance would recommend investing in a solution based on the solution’s ability to reduce costs such as travel (Carliner 2000), eliminate the need to print and ship materials, and reduce errors and re-work (Daniel 1995). In an ideal situation, the costs that the EPSS will eliminate are ones that the organization already incurs; as a result, a designer can easily find data to illustrate the cost avoidance. For example, in Daniel’s study of errors in the U.S. Department of Veterans’ Affairs, the organization knew the return rate for letters mailed and the percentage of forms returned that had been completed in error.

◆ **Return on investment (ROI)** business cases argue that for each dollar spent on the EPSS, 1 + X dollars will be returned. This is considered the more difficult case to demonstrate because the designer must forecast how much additional profit will be generated. A business case that argues for return on

investment will recommend investing in solutions that increase average deal sizes for sales representatives, enable workers to process more transaction per hour, or increase the number of customers who buy additional services. For example, a business case that focuses on ROI may attempt to show that an EPSS that lets estimators for moving companies provide firm estimates on site may result in a 15% increase in sales. The estimate of a 15% increase is a guess at best, because the organization has no history on which to base this estimate. Therefore, executives in the sponsoring organization will want to see the assumptions underlying the use of 15% to determine whether they believe that this proposed increase in sales is a realistic one. Because it relies on “soft” estimates and lacks historical data on which to base estimates, return on investment is more difficult to demonstrate.

Whether demonstrating cost avoidance or ROI, the business case must be based on solid research and credible financial figures. Costs avoided should result from documented evidence whenever possible. If you estimate avoided costs, state the source of the estimates and the assumptions you have made. For example, if you argue that the number of calls to a help desk will be reduced by 15%, you must document the source of current call volume (a report from the user support organization) and how the 15% cost avoidance estimate was derived. Similarly, for ROI, you should base the return on realistic projections.

CASE STUDY

The best way to illustrate the difference between cost avoidance and return on investment is to look at a case study. The case study presented below is based on the experience of IBM Mindspan Solutions (Driscoll 2001).

Background

A large communications company reviewed its customer services operation and the related expenses. This operation handles telephone sales for a merchant. The review revealed the following findings.

- ◆ The turnover rate among customer service representatives (CSRs) was very high. (These people take orders from customers and answer questions about potential purchases.)
- ◆ The training program for new CSRs took almost 3 months to complete.
- ◆ One of the organization’s largest expense items was training.

The IBM Mindspan Solutions team worked with the customer service organization to design an effective solution and, to ensure that the solution was funded, prepared a business case as part of the design phase. Let’s take a look

at the steps involved in this process.

As is appropriate in any EPSS design project, the IBM Mindspan team started by looking at the root causes for the turnover. Did it result from promotions from within the company that created vacancies? A competitive labor market? The nature of the work? In fact, the turnover resulted from a combination of these factors. But the problem was hard to alter because the causes were beyond the control of the customer service training team.

The company decided to focus its performance support effort on controlling the length of training time and the related expenses. A review and redesign of the new-hire training program revealed that the 11-week program could be reduced to 9 weeks if it was delivered using e-learning. Although the result looks like a more traditional solution than other forms of performance support, the updated solution would result in performance improvements and cost savings. This e-learning solution would cost \$240,000 USD, including developing software and content, and providing related services. (Note that the figures used in this case are for illustrative purposes only.)

Choosing between cost avoidance and ROI

Once the problem was studied and a solution devised, it was time to build a business case. First, the team needed to decide whether it would base its business case on ROI or cost avoidance. It initially considered both but ultimately chose to focus on cost avoidance. The team did so because the customer service training team knew from past experience that the decision makers were conservative. To believe the analysis and results of the business case, decision makers would need to see concrete and measurable evidence of the solution’s value. Cost avoidance would provide more concrete measures in this situation.

The real business issue is ramp-up time to performance. An example of the dramatic effect even a small improvement in the length of training can make and the value of training is evidenced in the case of a helpdesk service company, IHS.

IHS calculated that it cost the company \$3,000 a head to bring on new hires. If they could nudge their average employee’s tenure from 3.5 months to just 3.8 months, they would save \$60,000. Get the average up to 7 months, and they’d recover \$275,000. And that wasn’t including the indirect cost of turnover, such as accompanying decreases in customer satisfaction. (Inc.com 1999)

The real business issue is ramp-up time to performance.

While this example is drawn from a high tech service company, it is not unique; all customer service organizations face similar challenges related to employee turnover and customer service training.

Considering crucial concepts

Before looking at the formula that IBM Mindspan Solutions used as the basis for its business case, there are a few concepts that need to be explained. One is **payback period** (Phillips 1997)—that is, the length of time within which the solution must show results. In this case, the company required that the solution results meet their criteria for return on investment within 12 months.

Equally important to building a case are the concepts of **hard and soft cost** (Waltner 1999). Hard costs are the easiest to quantify and to justify. These costs include travel, learner nonproductive time, and training delivery costs such as the instructor's salary, facilities rental, and development costs. Because one can find documented financial results from budgets and reports from previous years, hard costs are easy to quantify. Also, because decision-makers and stakeholders agree on the meaning of hard data and its financial value, designers hear fewer objections to using it.

Soft costs refer to expenses that usually do not appear on a corporation's balance sheet. They are more difficult to measure than hard costs. Examples of soft costs include opportunity costs, management attention, immediacy, and relevance.

- ◆ Opportunity costs refer to the single most valuable opportunity given up when an alternative choice is made. For example, the choice to send a consultant to training may have an opportunity cost of \$1,000 USD per day because the consultant would have billed \$1,000 USD for the day if he or she were not in class. The lost opportunity cost \$1,000 USD.
- ◆ Management attention is the cost of having a manager instruct a worker rather than focusing on making decisions, interacting with customers, or spending time on more strategic tasks.
- ◆ Immediacy and relevance refers to the lost productivity that occurs when workers are trained in advance of their needing the information. As a result, workers lack optimal recall or command of the skills when they are needed.

Describing soft costs in financial terms is difficult because the costs and savings are complex and are influenced by many factors. Furthermore, because definitions of these terms—and methods used to calculate them—differ among people, using soft costs in a business case proves more challenging than using hard costs. To avoid such problems, only hard costs were used to build the IBM Mindspan Solutions business case.

The choice of data used to justify the cost depends on what's credible to decision makers and sponsors. There are dozens of

formulas for calculating ROI (Fitz-enz 2000); some are more complex than others. The formula you choose to use should be based on what your organization requires and on your ability to get the necessary numbers. For the purpose of this example, a simple formula will be used to illustrate the point.

Calculating benefits

One clear cost savings that would be realized resulted from reducing the training from 11 weeks to 9. Designers could do so by letting learners move at their own pace rather than that of the classroom instructor. They were able to test-out of material they already knew and to move at their own pace (often faster than the pace of an instructor-led class—some estimates place this conservatively at one-third less time than the classroom). By this measure, the estimate of a 2-week time savings is conservative.

Furthermore, using historic data and forecasts from line managers, the team determined that the company would train 300 new hires in the following year. Working with the human resource department, the team determined that salary and benefits of these workers were worth about \$600 per week each. Based on reducing the current new hire training program from 11 to 9 weeks, the savings would be \$360,000 USD for a single year.

This savings is compared with the \$240,000 USD cost of designing, developing, and implementing the e-learning solution. The total costs avoided are \$360,000 USD (total savings) less \$240,000 USD (total cost) for a resulting net savings of \$120,000 USD (see Table 1).

As mentioned earlier, the organization wanted to see a payback in 12 months. In addition to the avoidance of costs associated with 2 weeks of salary and benefits for each student, there were cost saving associated with a reduction in the use facilities, and less instructor time than a traditional instructor-led course.

Table 2 shows a side-by-side comparison of the business cases for traditional classroom training and an electronic approach.

The business case based on cost avoidance was well received, and the customer decided to implement the e-learning solution. Because ramp-up time to experienced levels of performance was reduced, the new training alternative didn't simply result in cost avoidance. The customer service representatives (CSRs) were also realizing greater sales because they were working on the phones 2 weeks earlier than with the traditional classroom training.

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TABLE 1: SIMPLE COST AVOIDANCE CALCULATION◆

Number of new-hires per year		Weekly salary and benefits		Fewer weeks of training		Cost reduction due to 2 weeks less training
300	×	\$600	×	2	=	\$360,000.
Savings due to 2 fewer weeks of training						\$360,000
Cost of e-learning solution						-\$240,000
Total Cost Avoidance						\$120,000

◆ All amounts quoted are in U.S. dollars.

Like most customer service telephone centers, this customer had a very good computer system for tracking CSR performance. The organization maintained historical data on the number of calls that each CSR handles in an hour, the level of difficulty of the calls, the percentage of rework resulting from the calls, and the financial value of sales made on each call.

A second look at the case

After the e-learning solution had been in place for a year, the CSR training group compared the performance of CSRs who completed the e-learning program to experienced CSRs. The results showed that CSRs who completed the e-learning program were immediately 80–110% as effective as CSRs who had been on the job for a year or more. This meant that the first week the new CSRs were on the phones, they were selling and making money for the company. In addition to reducing the cost of training CSRs, the organization realized revenue and profit for CSRs who were productive 2 weeks sooner than CSRs training in the traditional classroom program.

These new hires are selling at a rate of 80–110% of those with experience. The average revenue per newly hired CSR is \$2,500 USD per week. At the end of the year, the company determined that it realized \$1.5 million USD in revenue from these new CSRs.

From this revenue, we must calculate profit to understand the real value of this program. Assume that the company has a 25% profit margin; that is, 25% of all revenue generated is profit. In this case, the company is earning $0.25 \times \$1.5$ million USD or \$375,000 USD as a result of the solution that trains CSRs and makes them productive 2 weeks sooner than the traditional training method (see Table 3).

Although the original business case was based on cost avoidance, an equally compelling case could have been

made for ROI and increasing profitability. This situation is typical in sales, where reduced training delivery time often means additional sales and profits.

But the challenge in building the ROI case would have been to convince upper management that the e-learning program would produce CSRs who were 80–110% as skilled as those with 1 year of experience. No historical data existed to support this claim so, like most ROI cases, the numbers would seem too good to be true. In this case, the ROI was more than 100%, that is; for every dollar the company invested in e-learning, the training department was able to give back the dollar invested and return a dollar in profit.

Although this type of data is not helpful in preparing a business case before the EPSS is developed, it can be useful for demonstrating additional benefits of the EPSS after it is in use.

ADDITIONAL CONSIDERATIONS IN PREPARING BUSINESS CASES

One of the challenges of preparing a business case for an EPSS is addressing the nonfinancial barriers. The best ROI, the strongest case for cost avoidance, or the most detailed list of benefits is meaningless unless the business case also addresses the following considerations.

- ◆ **Technical limitations** Technical limitations address whether a solution that worked well in a small part of the organization can be expanded to the entire organization. Sometimes this expansion is also called scalability because the solution is “scaled up” to the entire organization. These questions should be asked:
 - ◆ Is the infrastructure strong enough to address the increased network traffic?
 - ◆ Are the PCs configured with the operating systems and software needed to run the EPSS?
 - ◆ Can a solution that works well in the U.S. be ex-

TABLE 2: COMPARISON OF THE COSTS FOR TRADITIONAL CLASSROOM TRAINING AND E-LEARNING◆

	Traditional Training Costs	E-learning Costs
Development (traditional-student/instructor guides, handouts, vs. e-learning software, hardware, services and infrastructure, and so forth)	\$55,000	\$240,000
Delivery (one instructor salary, facilities for 11 weeks, materials production for 300 sets, and so forth)	\$50,050	\$27,000
Student Salary for 300 students (traditional, 11 weeks/e-learning, 9 weeks)	\$1,980,000	\$1,620,000
Total	\$2,085,050	\$1,887,000

◆ All amounts quoted are in U.S. dollars.

tended to offices in Europe and Asia, or does it need to be localized or translated?

◆ **Organizational readiness and end-user**

resistance Organizational readiness and user resistance affect the ability of the organization to successfully launch and implement the EPSS with the intended users. This issue should not be ignored. EPSSs are not always welcome. Among the groups that develop them, they can change the roles of trainers, managers, and documentation specialists, and demand new skills (Gery 1991). More fundamentally, the new work processes that EPSSs introduce can change the jobs of the intended users, and this fact could reduce morale and cause a drop in performance if it is not anticipated and addressed up front. ROI analysis must face this issue, including calculating the cost of a failed implementation.

◆ **Volatile nature of the business environment**

Every business case must take into consideration how quickly things change. One should not assume that a good economy lasts forever (probably not an issue at the time this is written, but certainly an issue in the late 1990s, when the U.S. economy experienced 8 successive years of growth). Furthermore, the shelf life of an EPSS, the costs of updating it, and the problem of determining when it will become obsolete should be

taken into account. These factors may not be obvious to upper level managers, but those who are accountable for the business case should factor these contingencies into the analysis.

The second challenge in producing business cases is simply preparing them. The complexity of measuring the value of performance support systems and e-learning programs has often deterred organizations from evaluating and adopting these technologies. In other cases, the land grab mentality of the dot.com era drove many emerging companies to stake their claims first and then look in the rear view mirror to determine the impact that an EPSS or e-learning solution would have.

Traditional companies have understood this need to demonstrate the financial impact of an EPSS. In some organizations, doing so is often a standard step in the process of deciding whether to invest in an EPSS. Anne Derryberry, president of a San Francisco-based training consultancy and author of *Predicting ROI: Making the business case for online learning*, observes that “there is so much attention being paid to stock prices and the financial performance of companies today, [that] all expenses are highly scrutinized. Only projects that guarantee a boost in the bottom line will be funded” (Webb 1999).

These days it is not difficult to find companies that actively calculate ROI as part of their performance support and training efforts. For example, a large financial com-

TABLE 3: SIMPLE RETURN ON INVESTMENT CALCULATION◆

Number of new-hires per year	×	weeks of selling at 80–110% of the rate of a CSR with 1 year or more experience	=	Average revenue per week for each new-hire CSR	Revenue due to reduced time to phones and higher skill level	25% Profit (as a percent of revenue)
300	×	2	=	\$2,500	\$1,500,000	\$375,000
Savings due to 2 weeks less training						\$360,000
Cost of e-learning solution						–\$240,000
Net savings (Cost avoidance)						\$120,000
Total ROI (Profit) from 2 week sooner on the phones						\$375,000
Business Case Total						\$495,000

◆ All amounts quoted are in U.S. dollars.

pany was concerned about a high employee turnover rate. The company ran a survey of departing employees and found that most were dissatisfied with the limited amount of training they received. The company responded by developing a skills development program that averaged 80 hours a year per employee. The company had hoped that the increase in training would decrease turnover and thus represent a savings greater than the cost of the training (Worthen 2001).

To calculate the ROI, this company

measured the average turnover rate—23% per year—and then calculated the cost of training its 100-person IT department. The average employee wage was \$35 per hour, so 80 hours of training for 100 people would cost \$280,000. Instructors, classrooms and other costs brought the total to \$450,000. The ROI calculation showed that the company reduced turnover by 8%, saving \$453,000 in related costs for new hires. Ultimately the company used the ROI to reduce training hours because the data showed that employees were actually receiving too much nonproductive, expensive training hours and that less time spent in more focused training actually yielded better results. (Worthen 2001, p. 134)

Staples.com, the e-commerce site of the Staples, the office product retailer, uses a complex but flexible ROI analysis equation to prioritize each major EPSS initiative. In many cases, one element of that ROI analysis relates to the number of users who “drop-off” from a certain area or page on the site. A “drop-off” is an instance when a user leaves a page on the site without buying. Because drop-offs are directly proportional to overall conversion rate—the percentage of visits that result in a sale—it is a valuable metric in determining areas where performance support can add value to the bottom line.

Still, some organizations choose not to prepare business cases for proposed projects. Why? Learning consultant Brandon Hall (2001) suggests that the process “is a pain.” Worthen adds that “it requires an in-depth understanding of your company’s strengths and weaknesses, strategies, and extensive goal setting. Plus it takes time” (Worthen 2001). Doug Woodard, director of service improvement at Staples.com, agrees. “The ROI calculation process that we use for project prioritization can take an enormous amount of effort,” says Woodard (2001). Some companies might not be willing to invest that time.

Jack Phillips, an expert in ROI for learning and performance support acknowledges this problem but recommends that trainers evaluate whether ROI is even a useful

or achievable measure. Phillips suggests people ask these questions to determine if a project under consideration warrants an ROI analysis (Webb 1999):

1. What is the life cycle of the training program?
2. How many people will use it?
3. How much money is involved?

According to Phillips, the general rule of thumb is to conduct ROI analysis only for larger projects and not for smaller ones (Webb 1999).

SUMMARY

You develop a business case by first calculating the costs, then comparing those costs against estimating its potential benefits.

Costs include labor for design, development, implementation, maintenance, software purchases or leases, equipment purchases or leases, and professional services.

Benefits can be calculated in one of two ways: cost avoidance (that is, by building this EPSS, the organization avoids those costs) or return on investment (ROI) (that is, by building this EPSS, the organization generates these additional revenues).

The costs are compared against the benefits, and if the benefits outweigh the costs, the business case is said to be positive.

Both the costs and benefits must be based on realistic, defensible estimates. Ideally, the costs and benefits should be based on historical data. If that is not available, use realistic assumptions to make calculations and list those assumptions.

A business case must also address non-financial costs, including technical limitations, organizational readiness and user resistance, and the volatile nature of the business environment.

Because developing estimated costs can consume time, many organizations forego the business case process. As a result, some potentially beneficial EPSSs go unbuilt, because the organization is not aware of the possible benefit.

Ultimately, a business case is a persuasive document. Although it cannot predict the future with 100% accuracy, the more in-depth and complete the preparation, and the more credible the estimates, the more likely that it will persuade sponsors that building the proposed EPSS is good business. **TC**

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