IT Training for End-Users: Total Costs

By: Larry Mercer, MBA, EdD, FACHE

Many healthcare systems are weighing multi-million dollar technology investments. In an industry with slim margins and demands for better access to affordable high quality care, executives must know the expected costs and benefits of all facets of its information technology investments, as noted in an earlier DIVURGENT white paper.[1]

Training of staff and clinicians in the use of new healthcare information technology (IT) is a significant and important component of a thorough analysis of costs.

The process called "Total Cost of Ownership," or TCO, of an information technology project has become an industry standard. A major feature of the TCO is the fact that it changes as an organization adapts to new opportunities, making it a living document. A thorough TCO analysis in healthcare engages key clinicians. It seeks their support in determining not only desired IT functionalities but also in implementing their training.

The purpose of this paper is to provide an overview for determining the Total Cost of Ownership for training end-users in healthcare IT applications. The model will focus on three areas:

- Strategic Management
- Tactical Management
- Performance Management

(See box at the right.)

Our goal in presenting this information is to help others achieve a competitive advantage and better patient care.

Three Categories of Analysis for IT Training Costs

To gain the most from an analysis of the Total Cost of Ownership (TCO) for IT training in the healthcare industry, attention to these areas is key, and are the focus of this paper:

Strategic Management is an intellectual planning process conducted, to use a sports analogy, in the pre-season. It is an executive leadership responsibility. Leaders must answer at least the following questions as they relate to training:

    What is our vision?
    What is our mission?
    What are our goals?

Tactical Management is the responsibility of the CEO and management—the coaching staff, in our analogy. They must find and implement the best possible organizational structure, people, process, and technology. In short, they must inspire the team and so breathe life into the strategic plan.

Performance Management is about accountability of the coaches and individual players at corporate, divisional, and functional levels. Effectiveness relates to satisfying all customers (patients, staff, physicians, stakeholders, and regulators). It is a measure of the appropriateness of the organization's goals and of the degree to which it achieves those goals. Efficiency measures human and capital resources productivity (Jones and George, 2008)

---

[1] Konschak, C, and Felt, P. *Understanding the total cost of ownership analysis for IS in the healthcare setting.* 2008. Available at www.DIVURGENT.com, under "Thought Leadership"

Goals of Strategic Management

Strategic Goal 1:
Know who owns IT applications training.

IT application training is often a "no man's land." Human Resources owns organization development courses; nursing services owns clinical protocols; and the medical staff owns continuing medical education. As one CIO notes, "No one wants to own IT applications training. We post the applications on our websites and proclaim, 'It's highly intuitive!'"

The end result: budgets often understate the projected "true costs" for end user training.

To capture costs and assign accountability, the most important factor is Operations ownership. As an organization grows in complexity, its entropy—the tendency of an organization to lose control of itself—becomes a present danger. Yet, transformational leadership and esprit de corps can carry the day.

Therefore, Operations should lead the IT adoption process. Operations must own IT applications training!

Strategic Goal 2:
Know what you want. Know what you can afford.

While most health systems take pride in their multi-purpose meeting rooms, few have classrooms appropriate for IT training. So another cause for understating projected costs for end-user training stems from the lack of adequate personal computer (PC) training space and equipment. Many organizations lack PC hardware, software, and technical support. Few facilities have the square footage and classrooms needed to train hundreds of persons with in a matter of weeks before go-live.

Thus, the strategic questions include: What do you want? What can you afford? Should you purchase or lease space and equipment, or send staff off-site for training?

Strategy:
A cluster of executive decisions about what organizational goals to pursue, what actions to take, and how to use resources to achieve the goals.

Strategic Goal 3:
Is IT training a *project* or a *program*?

It is important for the organization to decide if end user training is limited to the specific IT project at hand. If it is, the strategic goal for this *project* will be to find the lowest cost strategy.

Super User: a non-IT liaison between a department and the IT staff, who becomes a subject matter expert for the department, answers questions, solve problems, and troubleshoots issues.

If end user training is a *program*, with a broader or more long-term scope, human resources will need to re-visit its recruitment, job analysis, orientation, and training strategy. Most health systems seek to minimize costs through some form of a train-the-trainer. (See "Super-User" sidebar.)

Strategic Goal 4:
Determine the Training Strategy.

Two basic ways to offer large-scale end-user training include:

- Customized "role-based" training: physicians, nurses, pharmacists, schedulers, etc. The advantage is that adults tend to better recall the functions and features as they relate to one's unique workflows.

- Standardized "functions-and-features" training: PC navigation, documentation, order entry, etc. The advantage is, can offer generic topics to larger, more diverse audience.

Either strategy must be based on principles of adult learning---particularly "just-enough, just-in-time". (See box, page 3)

Five challenges of Tactical Management

Below is a broad overview of challenges to determining costs of IT training at the tactical level. Awareness of these issues will provide the internal TCO owner with direction for on-going updates to the TCO document.

Tactical Goal 1:
Determine what organizational structure would "satisfice."

Given the temporary nature of project management, "satisficing"—the search for decisions that are "good enough" rather than trying to make the best decision—must be the guiding principle. Organizational structures for managing the project should support control, coordination, and communication systems. There are numerous organization options, depending upon multiple variables.

Tactical Goal 2:
Determine the number and type of classroom trainers.

The recruitment and retention of trainers can be challenging. Adults expect their trainer to be a highly skilled facilitator, subject matter expert, and professional role model. Yet, in the reality of pay, benefits and quality of life issues, the competition for trainers is stiff. Consider the cost-benefit ratio of using existing staff, contracting trainers, or both.

Tactical Goal 3:
Determine what training process to offer.

Healthcare professionals could easily be called "professional students." Consequently, everyone has an *expert opinion* about training delivery. Younger employees and clinicians will argue for computer-based and on-line training. "Mature" staff might testify to the effectiveness of classroom training. In reality, both are legitimate venues of learning. They also come with different types of expenses, though total expense could be similar depending on what resources are currently in place.

> **Tenets of Adult Learning**
>
> For effective healthcare IT training, as well as other educational endeavors for adults, three tenets should form the curriculum:
>
> 1. Adults want to learn *only* what they need know.
> 2. Adults want to understand *why* specific information is important to learn.
> 3. Adults want training *when* they need it---not before.
> 4. Adults want to learn at their own pace---not the group pace.

Tactical Goal 4:
Determine the requirements for technology support.

Traditional classroom technology consists of a whiteboard, laptop and projector. In the future, all IT application training may be totally on-line. However, most organizations today support "hybrid" training---classroom and Web-based sessions.

For legal reasons, healthcare professionals need a "playground" environment to practice vs. learning in the "live production" environment. Playground data requires significant IT support: IT staff must preload data daily to support all training scenarios and interfaces to other systems. IT managers must ensure the hardware can support concurrent training users. Thus, the "total cost" of training must include IT support for practice environments.

Tactical Goal 5:

Determine the training communications strategy.

Communication of the training strategy, schedules, and progress of training is critical. Many organizations report that at the first go-live site, training communications take on a celebratory tone similar to an announcement of one's first baby. However, after few go-lives, training communications tend to become matter-of-fact pronouncements. At this point, information overload, "disinformation", and resistance to change can become the bane of training communications.

Goals for Performance Management

To capture the full costs of IT application training, measure both the effectiveness and the efficiency of human and capital resources.

Competitive Advantage:

The ability to outperform competitive organizations in terms of key **effectiveness** *and* **efficiency** *metrics.*

Performance Goal 1:
Determine appropriate Measures of Effectiveness

Measures of training effectiveness must be based on valid metrics. Validity of a measurement depends on the desired outcome.

Common measurements of training effectiveness:
- For Training: demonstrating a required job knowledge or skill
- For Learning: demonstrating knowledge or behavior resulting from practice or training experience
- For Conceptual Skills: demonstrating the ability to analyze and diagnose cause and effect
- For Core Competency: demonstrating a skills, knowledge, and experience set that allows one organization to out perform another

Performance Goal 2:
Determine appropriate Measures of Efficiency

Financial measures of training *efficiency* are rarely measured or expected. Instead, organizations often view training as a cost of doing business. Yet, measures of efficiency are not complex. Examples of training efficiency includes:
- Trainers are to teach 32 hours per week.
- Classroom occupancy should be 80 to 90 percent.
- One trainer per 8 to 12 trainees.
- 10% no-show rate.
- 100% proficiency test pass rate.

Conclusions

This report is intended to provide a starting point for top-of-the-mind discussions regarding end-user training for IT applications. The goal is to make end-user training costs transparent and reveal opportunities for increased productivity and job satisfaction.

In order to capture business returns related to any IT project, organizations should also consider conducting a *Benefits Assessment that includes training*. This type of assessment will reveal otherwise hidden financial and qualitative-value benefits. Quantifying all training benefits through such a tool can lead to a substantial decrease in the total cost and increase in training effectiveness.

About the author:

Larry Mercer, MBA, EdD, FACHE, has 35 years' experience in Navy and civilian healthcare management. He is now the eCare Training Director at Sentara Healthcare, a nationally acclaimed integrated healthcare system, in Southeastern Virginia. A Six Sigma Black Belt, he has received multiple awards for leading major performance improvement initiatives. In 1991, he was Navy Regent's Administrator of the year. Dr. Mercer is a fellow in the American College of Healthcare Executives, holds an MBA and MS from Ohio State University, and a doctorate in education from Vanderbilt University. Since 1979, he has taught graduate level healthcare courses in economics, law, human resources, and managed care.

About DIVURGENT

Founded by a team of consulting veterans, DIVURGENT is a national health care consulting firm focused solely on the business of hospitals and other healthcare providers. DIVURGENT provides advisory, revenue cycle management and project management services to help improve patients' lives.

We are committed to:
- Providing Thought Leadership
- Providing Exceptional Value for our Services
- Facilitating Knowledge Transfer
- Ensuring Client Satisfaction

Central / West Office
6119 Greenville Ave
Suite 144
Dallas, TX 75216-1906

East Coast Office
4445 Corporation Lane
Suite 245
Virginia Beach, VA 23462

(877) 254-9794   info@DIVURGENT.com   www.DIVURGENT.com