



The Hidden Costs of IT Implementations

Why Workflow Documentation and Testing Matter More Than You Think

By Tamara Pomerantz, MHA, MHS, PgMP

Every IT implementation comes with a price tag. Organizations budget for software licenses, hardware, implementation consultants, project teams, training, and support. These costs are planned, approved, and monitored throughout the project.

Yet, some of the most essential tasks are often not budgeted or properly represented and tracked by the project, they remain hidden.

The Hidden Million-Dollar Problem

Hidden implementation costs rarely result from the technology itself. More often, they stem from two overlooked implementation areas:

- Failing to properly document how work is actually performed by end-users
- Failing to validate that the technology supports and integrates with the end-user workflows

Organizations that neglect these tasks discover that the most expensive part of an implementation is not purchasing the technology - it is correcting the operational problems that follow go-live:

- Increased support requests
- Design and build rework
- Declining confidence in the technology and the IT department
- End-user frustration and burnout
- Patient safety risks
- Billing and receivable issues
- Higher demand for more projects to "fix" things

If these tasks were better accounted for and budgeted up-front, the overall organizational cost would be much less.



The Cost of Underinvesting in Workflow Documentation and Workflow-based Testing

Hidden Workflow documentation and workflow-based testing are frequently viewed as project deliverables - activities to check off the list. However, they should be treated as essential investments that preserve knowledge, improve quality, reduce risk, increase adoption, and drive continuous improvement. These are critical benefits worth investing in.

Poorly documented workflows and inadequate workflow-based testing create inefficiencies that continue long after the implementation is over. Costs that accumulate through low productivity, growing technical debt, excessive support requests, user frustration, delayed projects, and operational and project rework.

The **Consortium for Information & Software Quality (CISQ)** estimates that poorly implemented technology cost the U.S. economy **more than \$2 trillion annually**, with significant losses tied to operational failures, unsuccessful projects, and technical debt.

Similarly, the **Agency for Healthcare Research and Quality (AHRQ)** found that organizations incurred significant "hidden" implementation costs including time spent on adjusting plans and expectations, redesigning workflows, re-configuring, training, and end-user preparation.

The research demonstrates that properly capturing and validating end user workflows upfront can save time and money. Workflow documentation is a bridge between business requirements and technical implementation, helping organizations validate that technology supports real-world operations before configuration begins.

Despite this, many organizations continue to underestimate the value of workflow documentation and workflow-based testing.

Technology Doesn't Fail - Processes Do

Implementing new technology is rarely just about software and hardware installation. Implementations change how work is performed.



In healthcare, a patient visit may involve scheduling, pre-authorization, registration, insurance verification, nursing assessments, provider documentation, bed management and transport, labs, imaging, pharmacy, med administration, billing, and follow-up care. These activities span multiple departments, systems, roles, and handoffs.

If these complex workflows are not fully understood, organizations risk automating broken processes instead of improving them.

Technology simply accelerates whatever process already exists; and often uncovers and exacerbates bad processes.

Why You Should Invest in Workflow Documentation

Many organizations document technical system configuration but spend little time documenting how work and people actually flow through the organization. This creates several significant and costly experiences.

1. Loss of essential knowledge

Critical operational knowledge often resides with experienced employees. When individuals retire, change positions, or leave the organization, years of institutional knowledge disappear.

Future projects must rediscover processes, increasing implementation costs and delaying future initiatives.

2. Incomplete requirements

Workflow diagrams expose details that technical requirement documents often miss.

Questions such as:

- Who performs each activity?
- What triggers the next step?
- What exception pathways exist?
- Where is information exchanged?

Without visual workflows, these details frequently remain unidentified until after go-live and can only be resolved through re-work and new project investments.



3. Training is more difficult

Training users on applications without covering the workflow process leaves employees understanding how to perform clicks but not why (and when) they should perform them.

Workflow diagrams provide operational context that improves user understanding and adoption.

4. Process improvement opportunities are missed

Creating workflow diagrams often reveals:

- Duplication of effort
- Manual and/or unnecessary data entry
- Bottlenecks
- Communication gaps

Documenting workflows forces teams to examine how work is actually performed, enabling the discovery of process inefficiencies, exceptions, and improvement opportunities.

Visually mapping out workflows better aligns technology with user processes and reduces implementation complexity.

Why Application Testing Isn't Enough (and Workflow-based Testing is Required)

Implementation testing often focuses on application functionality:

- Does this button work?
- Does this entry screen save correctly?
- Does the report generate?

While necessary, this type of testing addresses only one thing: ***Does the software function technically?***

It does not answer the question that actually determines success: ***Can employees successfully complete real-world processes from beginning to end?***



Effective workflow-based testing validates operational scenarios rather than isolated software functions. It tests how users engage and interact, including the many decision pathways that often occur within a process.

For example, a patient scheduling workflow may include multiple decisions and pathways for appointment creation, insurance verification, registration, clinical documentation, labs and medication management, billing, and referrals.

Every handoff, integration, notification, approval, and exception needs to be validated as a continuous process. This approach identifies problems that functional testing almost never uncovers.

The Cost of Poor Workflow Testing

The **Agency for Healthcare Research and Quality (AHRQ)** notes that health information technology can improve patient care only when technology aligns with clinical workflows.

When workflow-based testing is skipped or minimized, organizations often experience problems that become visible only after implementation.

Poor workflow integration can contribute to burn-out, inefficient workarounds, communication failures, and patient safety risks. Organizations that overlook process workflows experience issues that continue long after implementation generating significant operational costs such as:

1. Productivity Decline

Employees spend valuable time finding workarounds for broken processes. Small inefficiencies repeated thousands of times each day become major operational costs.

2. User Frustration

When technology fails to support their processes, users lose confidence in the system. Many begin creating their own unofficial processes. These workarounds introduce new risks while reducing standardization.



3. Increased Support Costs

Help desks experience higher call volumes while analysts spend months trying to resolve issues that could have been identified during the implementation if better workflow testing had occurred. Project teams often have to remain engaged long after go-live, delaying the start of other initiatives.

4. Delayed Revenue

Workflow failures affect documentation, coding, charge capture, billing, and claims processing. Even minor process disruptions can create significant financial delays.

5. Increased Patient Safety Risks

Workflow failures are not merely operational inefficiencies. Missed alerts, improper handoffs, duplicate documentation, delayed orders, and incomplete communication can create patient safety events. Workflow testing helps identify these issues before they affect patient care.

The Cost of Rework

One of the most expensive realities of IT implementations is that problems become more costly to fix the later they are discovered.

An issue identified during workflow design may require only a brief discussion.

The same issue discovered during application build may require configuration changes.

Discovered during testing, it may require rebuilding interfaces, reports, workflows, and documentation.

Discovered after go-live, it can require emergency fixes, vendor re-engagement, retraining, change management, operational disruption, and loss of user confidence.

The cost of correction multiplies with every phase of the project.



Workflow Documentation and Testing Creates Long-Term Value

Workflow diagrams are not simply one-time project deliverables. They become organizational assets that support:

- Future technology implementations
- System upgrades
- Employee onboarding
- Staff education
- Regulatory compliance
- Operational standardization
- Process optimization
- Disaster recovery planning

Organizations that continuously maintain workflow documentation build an operational knowledge base that improves with every project.

Successful testing begins with documented workflows. These workflows become reusable assets that can support:

- Integrated and Regression testing
- User acceptance
- User education and adoption
- Optimization initiatives
- Ongoing operational validation

Rather than recreating test scripts for every project, organizations build a library of reusable workflow-based scenarios that evolve alongside their operations.

Moving Beyond Go-Live

An implementation go-live should not be viewed as the finish line, but a foundation for continuous improvement.



Organizations that invest in workflow documentation and workflow-based testing gain more than a successful implementation - they create a repeatable framework that reduces future costs, accelerates change, improves user adoption, and strengthens organizational resilience.

Conversely, organizations that neglect these activities often pay for the same mistakes many times over through rework, inefficiency, user frustration, and operational disruption.

The true cost of an IT implementation is not determined by the project budget. It is measured by how effectively technology supports the people and processes that rely on it every day.

How MAKE Can Help

Organizations looking to improve implementation quality, reduce operational risk, and build reusable workflow and testing assets should evaluate how they document workflows and execute workflow-based testing throughout the project lifecycle. [MAKE's TransIT software](#) enables organizations to create and centralize workflows for projects and daily operations, easily generate test scripts from those workflows, and manage validation and testing activities.

References

- Agency for Healthcare Research and Quality (AHRQ). *The Impact of Health Information Technology on Primary Care Workflow and Financial Outcomes*. <https://digital.ahrq.gov/ahrq-funded-projects/impact-health-information-technology-primary-care-workflow-and-financial>.
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