Why Software Adoption Fails

A health check before you implement enterprise software

WHITE PAPER

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If your organization is planning to implement enterprise software, we offer here a dose of 'preventive medicine' that will help you avoid common errors in software adoption and take steps to achieve a healthy outcome.

User adoption is the *sine qua non* for reaping the benefits of enterprise software and maximizing ROI. If users don't use a new system or exploit its full potential, there's little or no point in implementing it. Yet, judging by how regularly and thoroughly organizations fail at software adoption, the path to success is rather hazy.

In our brief survey of the literature, both industry and academic, we gather expert opinion about why successful adoption is elusive. As you'll see, software adoption failure stems as much from doing the wrong things as omitting to do the right things, and this difference isn't purely semantic. Deciding *not* to do the wrong things requires becoming aware of one's own limited perspective, while doing the right things requires careful planning and attention to best practices.

Insights from Business Journalism and Industry Expert Reports

A Change Management Dilemma: 5 Barriers You Can Anticipate to Technology Adoption

IMA, a consultancy in change management and implementation, cites five common barriers to adoption:[1]

1. **Lack of clear scope or definition at the outset.** This entails not just time and resources to meet technical objectives. It also means budgeting for the change process (including a user adoption program) and defining change in terms of new processes and ways of working. Focusing too much on the technical aspects of implementation, while downplaying the human ones, is the Achilles heel of most implementation projects.

2. **No sustained leadership support.** Support isn't rubber stamping—it's sustained demonstration of ownership throughout the project. Leaders have a responsibility to facilitate adoption by their direct reports, and they must do so with a thorough understanding of the changes required in their team's daily work and behaviour.

3. **Employee resistance.** Resistance isn't right or wrong—it's merely an expected response to major change. Leaders need a plan for discovering the types and causes of resistance early on, before it hinders adoption.

4. **Weak motivation to change.** Given users' propensity to support the status quo (because it seems easier, faster, or comfortingly familiar), organizations must develop a plan to motivate users to adopt the new system. IMA suggest that designing a system of reinforcement is crucial, heavily weighted on the side of positive reinforcement.

5. **Ineffective communications.** What's true in the marketing world is true here: one-way, top-down "message blasting" is ineffective. Instead, targeting messages to specific groups of users, meeting them where they are, and two-way communication that facilitates dialogue are most effective. Understanding your audience means leaving out any "hard sell" of benefits, and instead showing users that you know their challenges and empathize with them.

[1] A Change Management Dilemma: 5 Barriers You Can Anticipate to Technology Adoption. Implementation Management Associates (IMA), 2017.

Why Digital Adoption Matters in Today's Business World

The author identifies the root cause of poor adoption as lack of clarity about business objectives. This lack of clarity makes it difficult to convince users and leads to management decisions divorced from users' reality. Once new software has been introduced, if users dislike it for any reason, they will seek ways to continue using legacy solutions. To avoid this situation, proper communication, education, and training are essential.[2]

Highlights of the 2012 IT Adoption Insight Survey

Oracle and NeoChange conducted a survey of 300 companies, the 2012 IT Adoption Insight Survey.[3] Though the findings are several years old, they're still instructive now. An alarming 80% of companies reported failure at user adoption, and their common characteristic is a focus on technology instead of users. (Technology focus is a prime example of how "doing the wrong thing" stems from a narrow perspective.)

In comparison, companies that focus on user needs enjoyed lower technology costs, lower productivity losses in the change-over from old to new technology, and better business outcomes as measured by revenue per employee.

Three key practices define the user-focused companies:

- **Investing in user empowerment**, such as self-service solutions, simulations, and super user programs.
- **Starting adoption initiatives early**, even as early as the discovery phase of the software life cycle. User-focused companies achieved a 300% boost in returns on user adoption program investments.
- **Sharing usage data across the organization**, which helps keep stakeholders aligned and has a positive correlation to customer satisfaction.

Sharing usage data may correlate positively to better internal alignment and customer satisfaction, but as you'll see below, some authors challenge the idea that "software usage equals software adoption" and recommend other measures of success. They also present user empowerment as necessary not just for adoption but the higher-level outcome of becoming an agile organization.

Enterprise Software: Why the User Experience Matters

The focus of this Deloitte article for the *Wall Street Journal* is on user-focused design and easy-to-use intuitive interfaces. As proof of the importance of an intuitive interface, they cite the example of a power plant in which only a fraction of service requests was tracked. After putting a new front end on the system, adoption spiked, without heavy investment in training.[4]

We consider this example not as an argument for replacing training with UX design—we take the need for training as a given—but as evidence that some barriers to adoption cannot be overcome by training alone but by understanding the needs of users at the start of the project, and choosing a system that meets those needs.

[2] Why Digital Adoption Matters in Today's Business World. CIO Magazine, 2018.

[3] Article on the 2012 IT Adoption Insight Survey. SandHill, 2012.

[4] Enterprise Software: Why the User Experience Matters. CIO Journal, Wall Street Journal, 2012.

The Importance of User Adoption When Implementing ERP

The author is CEO of an ERP software vendor. Though her thoughts echo those of other authors cited here, she also includes valuable insights about business processes and user training.[5]

- Managers can be removed from the daily work of their teams, and not making time to understand existing processes before designing new ones is a major error.
- One should not assume everyone learns the same way at the same pace in the same environment. Classroom training is effective for some, while other formats such as video tutorials are effective for others. In addition, some users may learn best in a "hands on" context. The author strongly recommends catering to the needs of the widest possible variety of users.

To this last point, we've noted elsewhere in our white paper on digital transformation, that forcing users to sort through documentation stored in awkward formats outside the system it supports should not be the default approach.

Insights from Academic Research

Adoption of ERP System: An Empirical Study of Factors Influencing the Usage of ERP and Its Impact on End Users

To examine adoption of ERP, the authors use the widely-used information systems Technology Acceptance Model (TAM), categorizing the factors that influence acceptance as follows[6]:

- **Individual factors** include computer self-efficacy, i.e., one's judgment of ability to use a system, which in turn influences perceived usefulness. Also, perceived ease of use increases the perception of usefulness.
- **Organizational factors** include organizational support as shown through management support, technical user support, communication about the importance of ERP to the company, and availability of training.
- **Technological factors** include complexity and compatibility. Complexity in a new system requires users to invest significant effort learning it before they can use it, creating the perception that it represents more work than the legacy system. Compatibility includes compatibility with existing business processes, preferred work styles, prior experience, and current values. Lack of compatibility negatively impacts productivity, efficiency, employee satisfaction, commitment, and motivation around the new system.

By first taking steps to understand users, organizations can then take the necessary measures to influence each of these factors.

In their conclusion, the authors argue that usage alone as a measure of success provides an incomplete picture. Organizations should consider other KPIs such as user satisfaction with the system, improved employee performance, and empowerment for decision making.

[5] The Importance of User Adoption When Implementing ERP, Enterprise CIO, 2017

[6] Rajan, C., and Baral, R. (2015) Adoption of ERP system: An empirical study of factors influencing the usage of ERP and its impact on end users. *IIMB Management Review*. 27 (2), 105-117.

Indeed, software usage is not an end in itself. The authors also look at the impact of usage on what they call panoptic empowerment, that is, empowerment gained by seeing a whole view at once. In the context of ERP, *panoptic empowerment* occurs when business information is widely available in an organization, empowering employees to make and implement decisions rather than refer them up the chain of reporting due to lack of information. Because the enterprise system records such usage and transactions, these activities are visible to others in the organization, who then may opt to exercise process and outcome control. Transparency, agility, and control are what many companies implementing ERP strive to achieve in the course of meeting company objectives through ERP—and why adoption matters.

User Resistance in ERP Implementation: A Literature Review.

One of the more valuable insights the authors glean in this 2017 literature survey, is the idea of *interaction-related factors* in user resistance.[7] Interaction-related factors include changes to social, company, and job structures. For example, the job performance benefits of a new system will be far less meaningful to users if they think the change will be accompanied by a loss of status, a change in job roles, or a requirement to interact with new people (while missing contact with familiar ones). Indeed, such users will regard the new system with fear and skepticism.

The authors recommend employing a variety of strategies to address resistance, in part because there is no one-size-fits-all strategy. For example, users involved in daily operations may respond to one type of strategy, while managerial users may respond to another. Organizations that look at user adoption through one lens only, e.g., the lens of technology or the lens of process improvement, will fail to appreciate the full spectrum of resistance and be unprepared to address it.

[7] Haddara, M., and Moen, H. (2017) User resistance in ERP implementations: A literature review. *Procedia Computer Science*. 121. 859-865.

Baton's Top 24 Insights About Software Adoption Failure

Be clear about objectives, especially the ones that involve people and behaviour	Focus mainly on technical objectives
Choose meaningful KPIs to reflect end goals, not intermediate ones	Focus myopically on KPIs like usage while ignoring goals like improved employee performance
Ensure that leaders and stakeholders are aligned and committed for the duration of the project	Allow "rubber stamping" without real commitment
Implement a detailed discovery plan to understand how change will affect different groups of people, to anticipate resistance	Address the "adoption problem" late in the game, assuming good internal marketing is enough to deal with resistance
Take time at the start to understand current business processes before designing new ones	Assume business processes can easily change during implementation
Minimize software and process complexity, while ensuring compatibility with business processes and other systems—to boost usage, user satisfaction, and commitment	Increase users' cognitive load in using a complex new system while adapting to new ways of working that don't make sense to them
Choose solutions that prioritize the user experience	Prioritize a software's technical features over its usability and user experience design
Empower users with simulations, self-service and performance support, and super-user groups	Invest only in traditional training and documentation
Provide users with a variety of tools to learn	Assume people learn the same way with the same formats
Create a system of behaviour reinforcement, focused mainly on positive reinforcement	Give top-down mandates that people ignore because it's not in their interest to comply
Execute a comprehensive two-way communications plan, being positive about benefits for users and the organization while expressing understanding and empathy for what change means for them.	Blast marketing messages to users about benefits, offer no feedback mechanisms, and show no understanding of why users may be fearful or skeptical.
Align stakeholders across the organization through transparent reporting on KPIs	Let silos develop by not reporting on KPIs across the organization

Conclusion

As we've seen, organizations must develop an adoption strategy that accounts for a wide variety of barriers to adoption, based on knowledge about their users in all their diversity. Because the adoption problem is complex and mission critical, organizations must solve it early in the implementation project life cycle, long before end users ever see and touch the new system.

At Baton, we advise anyone contemplating a major new software purchase or upgrade to start planning for user adoption before the purchase. To ensure successful adoption, the adoption plan's solution set should incorporate products designed to accelerate software adoption and shorten time to value.

To accelerate software adoption at your organization, contact us or explore our solutions at www.batonsimulations.com

ABOUT BATON

At Baton, we know that change doesn't happen simply by being imposed on people, and sophisticated software alone isn't a silver bullet to solve people or process challenges. Trusted by customers in over 40 countries, we base our solutions on research-backed methods to engage, enlighten, and motivate people, helping them embrace new tools, end-to-end process integration, and even new business models—all part and parcel of successful digital transformation.

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