Industry White Paper
Quantification - The Missing IT Skill Set

Closed Loop Lifecycle Planning©
In collaboration with HP®, Microsoft®, and Intel®

October 2024

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1.0 Management Summary

The perception of IT has evolved significantly over the years. Initially viewed as a necessary component of business operations, IT was often seen as a result of other change initiatives rather than a catalyst for change itself. However, the pandemic transformed this perception.

When users were required to work from home due to the pandemic, the IT response was exemplary. With limited time and often minimal guidance, IT departments developed remote work strategies tailored to the diverse and unique needs of various organizations. Solutions that existed were scaled in ways previously unimaginable to meet the demands of pandemic support.

Throughout this period, IT demonstrated remarkable leadership and dedication. In this post-pandemic era, it is imperative that IT builds upon these accomplishments. Much of the IT infrastructure established during the pandemic is now maturing. Remote work, which has now evolved into hybrid work, remains prevalent and is a preferred mode of work for many in the workforce.

The office environment itself has also undergone significant changes in the post-pandemic era. As end users return to the office, they encounter transformations in conference rooms, workspaces, collaboration methods, and technologies.

Despite the efforts made both pre-pandemic and post-pandemic, debates persist regarding whether end users are more or less productive and whether costs have increased or decreased. During the initial IT response to pandemic requirements, there was little opportunity (and inclination) to quantify the impact of the innovations implemented.

In this post-pandemic era, there is an increased focus on the quantification of IT's impact. Closed Loop Lifecycle Planning defines quantification as "identifying and documenting the financial impact of implementing IT changes and innovation in an organization."

1.1 Cost Reduction and Cost Avoidance

Quantification requires differentiation of the cost impact. Reviewers and approvers of the IT impact may challenge the best way to account for a fiscal impact.

Cost improvement has certain criteria for definition purposes. Cost reduction and cost avoidance need to be well-defined so expectations and outcomes are clear.

Closed Loop Lifecycle Planning defines:

- *Cost reduction* as the cost counter measures that directly can be tracking into the financial statements and IT budgets. In the industry cost reduction is often cast as a “hard cost.”

- *Cost avoidance* includes what is often referred to as “soft costs” such as productivity and efficiency, which cannot be tracked in the budget.

Several of the primary ways to determine if an innovation is a cost reduction or a cost avoidance is provided below in bulleted format:

- If the savings reflect a change over actual cost (budget or invoice) from a previous similar lifecycle operation, it is a *cost reduction*

- If the outcome of leveraging new innovations such as automation of previously manual processes, then it is a cost reduction since such techniques were not leveraged prior, and reflect an added cost model as a *cost reduction*
- If the innovation includes new software that enables organizations to remove or eliminate existing software, that is a *cost reduction*

Cost avoidance refers to instances where there are less tangible methods of demonstrating on the IT budget that reductions occur. Areas of risk, Digital End User Experience, efficiency, and productivity are examples of cost avoidance.

The best proof of cost reduction is a comparison of how work was previously performed and now by innovation and automation, the cost to deliver that service is now reduced as measured by previous documentation.

1.2 Objectives of This White Paper

This White Paper is to focus attention to an often overlooked skill set in IT—to quantify impact.

The impact of IT is often considered too late in the process. By then, the impact is part of the past. Quantification should be performed at the beginning of projects and documented to determine whether outcomes were achieved or not.

Quantifying after the fact can lead to skepticism and suggests that it was not important enough to include as part of the initial projected outcome. As a result, it may appear unimportant or irrelevant.

IT plays a critical role in organizational competitiveness. Modern infrastructure is now essential rather than optional.

In the current post-pandemic era, IT is crucial not only for market operations but also for attracting, recruiting, and retaining top talent through a best-in-class approach.

Additionally, in this era, cyberattacks are increasingly frequent. IT departments need to quantify the impact of their investments as attack vectors evolve and malicious actors persist. Without quantification, there is no context.

All of these factors must become quantified to remain relevant. This White Paper provides the rationale why the quantification of IT needs to become mainstream and a mainstream skill. Otherwise, many decisions will continue to be subjective, not supported by detailed and documented quantified outcomes.

2.0 Business Case Focus or Technology?

It is essential that IT continuously expand its knowledge of technical solutions; this is undeniable. In many organizations, IT has become the team whose primary focus is on technology rather than the business. This narrow focus highlights a skills gap that affects IT's effectiveness. It is too simplistic to attribute this issue solely to other business units and leaders in the organization, which often leads to dismissive attitudes towards IT. The core responsibility lies within IT to develop these skills if they are currently lacking or underdeveloped.

Having a best-in-class IT solution without a well-documented position on quantifying outcomes is unlikely. IT often focuses on technology and leaves financial considerations to others. However, those

responsible for financials may lack the necessary technological understanding and skills to justify outcomes. As a result, many potential innovations are not pursued.

A solution to this issue is for IT to take on the responsibility for justification and quantification. Financial outcomes drive behavior. Integrating financial outcomes into IT's variable compensation could provide an incentive to recruit the necessary skill sets.

2.1 Business Liaison

In contemporary settings, it is frequently assumed that IT Analysts possess the necessary skill set for IT operations. In many instances, this assumption is accurate. However, the required skill set is currently quite specific. Identifying expertise in emerging technologies such as consumerization of IT, artificial intelligence, and collaboration, among others, combined with the capability to deliver a detailed cost-impact business case, is often a gap.

Many organizations have adopted an approach involving a "clearing house" with resources dedicated to monitoring and tracking impacts. Nevertheless, this presumes that the quantification is constructed correctly. This retrospective review overlooks the necessity for IT to possess the local and internal capability to create, control, track, and deliver results autonomously.

If additional resources are needed to provide these skills, it does not resolve the gaps but merely underscores the necessity to address them.

3.0 IT as a Cost Center

Legacy IT has traditionally been viewed as a cost center. Changing this perception can be challenging, particularly when staff and leaders remain in their positions for extended periods. The phrase "perception is reality" often applies.

To implement modern management practices, IT should no longer be seen as a cost center. Innovation provides financial and operational benefits. Whether these financial benefits manifest as cost reduction or cost avoidance, IT plays a central role in delivering them.

There are scenarios where the benefits are more operational and harder to quantify financially. Such scenarios should still consider the financial implications, although due diligence may need to be broader in scope.

If IT continues to be seen as a cost center, it may hinder innovation and continuous process improvement initiatives.

4.0 IT as Value Add

To achieve success, IT must be recognized as adding value, which should be objectively quantified rather than subjectively perceived. This recognition must be earned.

Currently, IT is excelling in delivering innovation. However, what is missing is the demonstration of the fiscal impact of IT’s successful implementation of these innovations. While IT might believe that leadership and the organization understand its impact, this belief alone will not alter the perception of IT as a cost center. Just as organizational decisions are driven by data, IT's value addition must also be supported by compelling data.

In many instances, the necessary financial information is already available; it simply needs to be identified, organized, and reported.

5.0 Continuous Process Improvement

Closed Loop Lifecycle Planning defines continuous process improvement as, “the on-going adoption of new policy, process, procedures, and governance leveraging modern technology and management tools to deliver better outcomes in IT innovation. These outcomes include operational, financial, and end user experience.”

IT has been achieving more with fewer resources, often significantly fewer. This has been accomplished not by overextending its capabilities but through innovation.

For some in IT, these accomplishments include straightforward tasks such as in-place upgrades that previously required desk-side support or the implementation of no-touch solutions that have been under consideration for many years.

The key point is that these changes offer clear before-and-after comparisons. The innovations delivered by IT are substantial and should be prominently highlighted in all communications about progress and advancements.

6.0 Modern Management

An organizations adoption of modern management is perhaps the most significant and current opportunity to change to the value add proposition.

Closed Loop Lifecycle Planning defines modern management as, “a cloud first, highly automated, highly secure IT infrastructure built around end users.”

Modern management is the key element that drives from what is today a highly manual and high touch environment to a highly automated process. At the same time, modern management provides an opportunity to rationalization security and management toolsets.

The entitlements that are offered by the incumbent providers such as HP, Microsoft, and Intel provides the impetus for optimization of IT.

7.0 AI

Artificial Intelligence (AI) is a significant topic of discussion today. Although some may consider AI as merely a trend, it has already demonstrated its transformative impact on the computing industry.

From the development of AI-enabled personal computers to innovations such as Microsoft Copilot and self-remediation technologies, the industry has indeed undergone substantial changes. It is essential to acknowledge that, from a security perspective, embracing AI is crucial due to new attack vectors employed by malicious actors in cyberattacks.

The benefits of implementing AI should be measured and documented quantitatively. While this is often done, it tends to be reported in overly broad generalities, which are easily conveyed but lack specificity. Marketing information, while useful, does not provide an organization-specific fiscal impact analysis.

8.0 Dollars *Not* Percentages

Most of the marketing literature and quantified benefit statements are in very braod terms and often justified by stating percentages. For large populations and for establishing expectations these are appropriate and perfect.

However, an IT organization needs to be specific on the fiscal impact to the enterprise, percentages will simply “not cut it.” The obvious question is, “a percentage of what?”

A baseline needs to be created so that a percentage change can be quantified and aligned to a specific organization. Without this it is a “phantom figure.” Specificity is a requirement.

There are really now two elements to consider—the baseline and impact.

The baseline represents the figures upon which the return on investment or the dollar impact can be calculated. Without the baseline, any outcome is subjective and is a challenge to prove that the benefits were actually delivered.

8.1 Being Accountable for Dollars, Not a Comfortable Position

Earlier in this White Paper, it was mentioned that there is a technical and financial skill gap in IT. Many of the IT team members may not be comfortable with financial objectives as part of their role, as this is not within their typical skill set.

However, while this might be true for individual contributors, organizations and leaders within IT departments may have accountability for fiscal impact as part of continuous process improvement plans.

Being responsible for the IT budget alone does not address innovation, cost improvements, or the impact of innovation.

The post-pandemic era introduces new metrics for IT driven by trends, resources, and necessary budget improvements to remain competitive.

9.0 Trends and Realities

This section aims to provide context for the IT landscape in the post-pandemic era and offers insights on its scope. It presents a concise overview of current market trends, supplementing those discussed in other sections of this White Paper.

It is crucial to recognize that the list of drivers of change will continue to grow, while some may become less relevant over time. Change is inevitable and is further accelerated by the demands of end users. To remain competitive, these trends should be considered essential rather than optional, with an emphasis on assessing whether there is a business need to adopt them.

9.1 Downsizing

Organizations has not been shy about the requirements for downsizing their workforce. While it might be simply to look at a specific industry, it is important to view the workforce holistically. Today, it is not only to align the work force to demand, but to understand how best to address that demand.

This is true across all industry segments as preferences have clearly and visibly changed. Those organizations that defer change, run the risk of becoming less competitive or in some cases, not a viable alternative.

9.2 Consumerization

Prior to the pandemic, the consumerization of IT was a notable trend organizations needed to address. Many approached this model with caution and minimal adoption. Conversely, other organizations recognized these changes as strategic opportunities and advanced rapidly. In the retail sector, for instance, an online presence became fundamental.

When the pandemic struck, an online presence became essential for both consumers and employees, driven by safety considerations. The shift in demographics has further accelerated the adoption of modern IT. Organizations that have not adapted to these changes risk falling significantly behind their industry peers.

9.3 Consolidations

Mergers and acquisitions are a common aspect of the business landscape. Every acquisition is accompanied by a divestiture, and bankruptcy, including Chapters 10 and 11, sometimes occurs, particularly in industries more prone to competitive pressures.

These situations have led to IT innovation, which helps to modernize an organization as it integrates with another entity and restructures the remaining business to adapt to changes.

For ongoing organizational operations, understanding the role IT plays in these scenarios is valuable. The analysis of historical data and legacy practices will provide insights, and numerous case studies will likely examine how demand sometimes fails to support sustained operations.

10.0 What to Expect - Optimization a.k.a. Cost

It is important to clarify a term that is frequently used in continuous process improvement discussion - optimization.

In many cases, the term “optimization” is a code for cost improvement. More specifically, “optimization” is a code for “cost reduction.”

The importance of optimization cannot be minimized. Every year, the challenges for many organization to remain competitive are reliant on innovations delivered by IT. Entering new markets, capturing new customers, attracting new talent, retaining your top talent, growing revenues - all are dependent on having an IT organization that can reduce costs year-to-year while improving the IT infrastructure required.

A comparison might be appropriate in closing out this White Paper. AI is in a similar position that the cloud was in during the pre-pandemic era - a trend. Recalling and remembering the dot.com bust in the year 2000, many just assumed that these trends will now pass.

Organizations will always be required to make decisions, and these decisions must fundamentally consider the financial implications of adopting innovations.

The IT department must take on a strategic role in quantifying the adoption of technology, enabling the business to evaluate its benefits. Although this shift may initially pose challenges, once established, IT will no longer need to rely on retrospective support. Instead, it can focus on implementing solutions with a comprehensive and well-documented financial perspective.

Appendix

1. Closed Loop Lifecycle Planning - A Complete Guide to Managing Your PC Fleet, Bruce Michelson, published by Addison-Wesley Division of Pearson Education, ISBN 978-0-321-47714-9.
2. Appropriate Incumbent Behavior©, copyright Bruce Michelson.

Other Books by Bruce Michelson

1. Closed Loop Lifecycle Planning©, Client Computing in the Health Care Industry, by Bruce Michelson, Published by IDG, ISBN 978-1-61623-045-6.

2. Closed Loop Lifecycle Planning© - What It Is and Why It Is Important to You, by Bruce Michelson, Published by Bookmasters, ISBN 0-9667607-0-0.

3. We Are All Retail, The Race to Improve the Retail Experience in a Post Covid World, by Bruce Michelson and Leif Olson, Published by Archway Publishing, ISBN 978-1-6657-3394-6.

4. IT Strategies in the Post-Pandemic Era, Part of the Closed Loop Lifecycle Planning© Series, published by Archway Publishing, March 2023, ISBN 978-1-6647-3856-9.

5. Zero Trust, by Bruce Michelson and Cody Gerhardt, published by Archway Publishing, May 2023, ISBN 978-1-6657-4191-0.