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# Striding in the Digital Era with Enterprise Performance

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**ABSTRACT:** The era of digital transformation is creating, among other things, a major paradigm shift in how we approach technology and finance. Yesterday's way of thinking held that technology was the final component of an equation in which people were at the center, driving processes and change. Today, we're seeing that equation flipped on its head as technology drives new and more efficient processes—and people, in turn, follow.

Digital transformation is now firmly at the heart of most enterprises' efforts to remain competitive and profitable. And, to successfully embrace it, the IT and Finance organizations must be in alignment. Without this alignment and the agility needed to react quickly to rapidly changing market demands, organizations could easily find themselves playing catch-up with their competition and losing market share.

One of the most important things a CFO can do is to gain a deeper understanding of the role technology plays in future investments, and how IT cost transparency can help the organization make fact-based decisions about those investments. Technology is not just a support function, it is vital to corporate-wide policy, direction and strategy. And it is the job of the Finance team to work hand-in-hand with technology leadership to better understand the costs, benefits and performance metrics of new tech initiatives.

Enterprises are indeed rethinking and re-tooling their IT systems, because they have to do so. Competition in the market and demand from customers is mandating it, in vertical industries all over the globe. We'll see an aggressive move to common IT platforms so companies can respond to market changes faster, be more productive, and make better-informed decisions. These common platforms are rich in analytics, follow the information flow of the business, and are simple enough that users can constantly change the business without writing (much) code. These common platforms provide very suitable if not substantially improved replacements for what used to be a custom build. They enable companies to shift their customization efforts from infrastructure to applications and the user experience. At the same time, they free up talent and working capital for differentiated services — where differentiation comes from information that enhances, or creates new, outcomes and experiences.

Developing a new product, planning a new plant, or producing with the help of digital tools creates a detailed virtual image, the digital twin. The digital twin creates new insights, thanks to the combination of physics-based simulations with data analytics in a fully virtual environment. This makes possible to realize innovations faster and more reliable, while also requiring significantly fewer real prototypes. Even more data are created when the product is being produced or a plant begins operation. These performance data of the real production and of the real product can be collected, analyzed, and fed back into development. Here they help to improve and optimize new products and processes at an early stage.

# I. INTRODUCTION

With Industrial Edge you take digitalization directly to your manufacturing and automation systems. This way you combine local and especially performant data processing with the advantages of the cloud: app-based data analytics, infrastructure as a service, and centralized update functions. New IT technologies will help enterprises across all industries to master future challenges. Companies are continuously integrating these technologies in its portfolio to offer the future of automation. Industrial 5G will change the way we make decisions, manufacture products, and maintain factories. The unprecedented reliability and very low latency times as well as comprehensive IIOT connectivity of Industrial 5G pave the way for pioneering applications in industry. Additive Manufacturing is revolutionizing industrial manufacturing. Companies in the world to offer integrated software and automation solutions for industrial use.[1]

Digital technology has become a continuous disruptor in healthcare research, education, record keeping, and communication, resulting in both opportunities and challenges. The purpose of this study was fourfold, to (a) identify the leadership practices of healthcare executives, (b) measure the attitudes of healthcare leaders toward technology, (c) explore the relation between leadership styles and attitudes toward technology, and (d) examine the relation between demographic factors (gender, age, practice type) and attitudes toward technology. Healthcare leaders are now under

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pressure to execute their healthcare digital technology strategies in order to keep pace with the speed of innovation that is the norm in today's competitive healthcare industry. According to MIT researcher, George Westerman, focusing on technology alone can steer the organization into trouble, given that without proper infrastructure digital transitions are unlikely to be successful. Much of recent academic and professional interest in exploring digital transformation and enterprise systems has focused on the technology or the organizations' external forces, leaving internal factors, in particular employees, overlooked. This paper operationalizes digital literacy at organizational and individual levels, and offers managers a high-level tool to assess digital literacy of their employees. By doing so, managers can achieve the fit between employees' capabilities and digital technologies that will improve affordance actualization and support their digital transformation initiatives.[2]

#### II. DISCUSSION

Enterprise Performance Management (EPM)—the discipline of monitoring performance across the enterprise—is playing a growing role in helping organizations become more strategic in their use of technology as a business driver. EPM provides a comprehensive program that helps the CFO and the CIO quickly make better, more well-informed investment decisions.

When an enterprise implements EPM and takes into consideration the cost, quality and productivity metrics inherent in the practice of Technology Business Management (TBM), it allows the organization to track, measure and monitor the performance of IT investments. And this, in turn, drives digital transformation.[3]

Strong EPM models and effective digital transformation rely on TBM, a methodology that builds transparency into IT spend and allows IT to forge closer alliances with the business. One critical mistake some CIOs make in approaching EPM is considering it as just another project and not as a transformational activity. Thinking of EPM as a project undercuts the investment and the time needed to make it a success.

Enterprises that are undergoing a digital transformation run the risk of spiraling IT costs and an out-of-control IT budget. Without a baseline provided by the TBM framework and the related IT cost management activities, IT spending can become a black hole. And the difficulty of keeping up with digital transformation only increases—all while competitors are busy reducing their budgets and embracing agile methodologies. TBM creates visibility that can help decision-makers take advantage of competitive software pricing, as-a-service subscription models and a closer linkage between IT spending and business imperatives.

If an organization is unable to manage its present technology spend, it will struggle to compete during a move into the digital era—a move that requires a new level of dependence on digital products and services. EPM is the framework that will drive this digital transformation, and TBM and the IT cost transparency that support it are at the center of the entire equation.[4]

For more insight into how and why IT has taken on such a transformational role, and why Finance must become more closely aligned with IT, listen to my comments on the *CFO* webcast, The CFO Playbook on Technology: Better Alignment of Strategic, Financial, and Operational Plans Through Enterprise Performance Management.

#### III. RESULTS

Integrate security in the network infrastructure.

It's important that you understand what your network requirements are early on to receive necessary recommendations and avoid any hiccups down the road. When it comes to selecting what technology and infrastructure are best for your organization, be sure its functions are built-in by design, whether it's within the hardware or there's tight integration in your broader security ecosystem.

Monitor your network access.

Your network access is your first line of defense and you need be able to support how it functions by identifying who is trying to connect to the network, ensuring they authenticate securely, and then once they are connected to the network, monitoring the network traffic behavior of that endpoint or user.

Engage endpoint threat intelligence. Threat intelligence increases visibility into your network traffic by looking for anything unusual that may be traversing the network. If a threat is detected, your enforcement policy should quarantine or disconnect the offending endpoint from the network and alert your operations team.[5]

Enable network segmentation. Set parameters and restrictions for how devices can connect to other devices or access common network services or applications within your network. Then enforce those restrictions with an established policy. For example, if a guest user is connected to the network, you can enforce a policy that restricts their device from communicating with a corporate user or applications. Or, if there's an IOT device that can access or send information out to a specific network location, you can ensure those devices aren't able to access one another or other network services.[6]

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Enforce policies. As a device connects to the network, your organization needs to be able to identify that device, apply your policy once connected, and continuously monitor to make sure your policy is being enforced. Should any anomalous behavior occur, a separate policy should come into play.

### IV. CONCLUSION

- Improve application visibility and performance. Not only do analytics give you visibility into how traffic is flowing across your network, they also baseline traffic so you can easily identify anomalous network behavior.
- Stream real-time telemetry data. With traditional polling, it can be difficult to understand how your network is functioning in real-time. Newer network infrastructure equipment can stream the state of the network device out to a centralized management platform and provide you with real-time information on how that device is performing, as well as the overall health of the network, and quickly pinpoint if there are any issues.[7]
- Implement intent-based networking. As your organization grows and you connect more and more devices, strategically automate and manage your enterprise network with intent-based marketing. This will aid in connecting all the components successfully, while also optimizing wireless capabilities. With intent-based networking, you no longer need to dictate what you want your network to do. Instead, a policy is programmed to provide that functionality on its own through automation. Keep an eye out for this technology as it is still evolving rapidly and will do so for the next few years as more adoption occurs.
- Support platform open standards. Decide which automation platforms you want to use and simplify how they inter-operate together. You will gain more flexibility to select the best-of-breed solutions that suit your business needs.[8,9]
- Move from manual command line to APIs. As you move to automation, both people and technology must evolve. Empower your organization to shift skills and train your team in new technologies as things move from manual processes to automated technologies. While automation can improve operational efficiencies, you still need to have a strong and disciplined change process in place. [10]

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