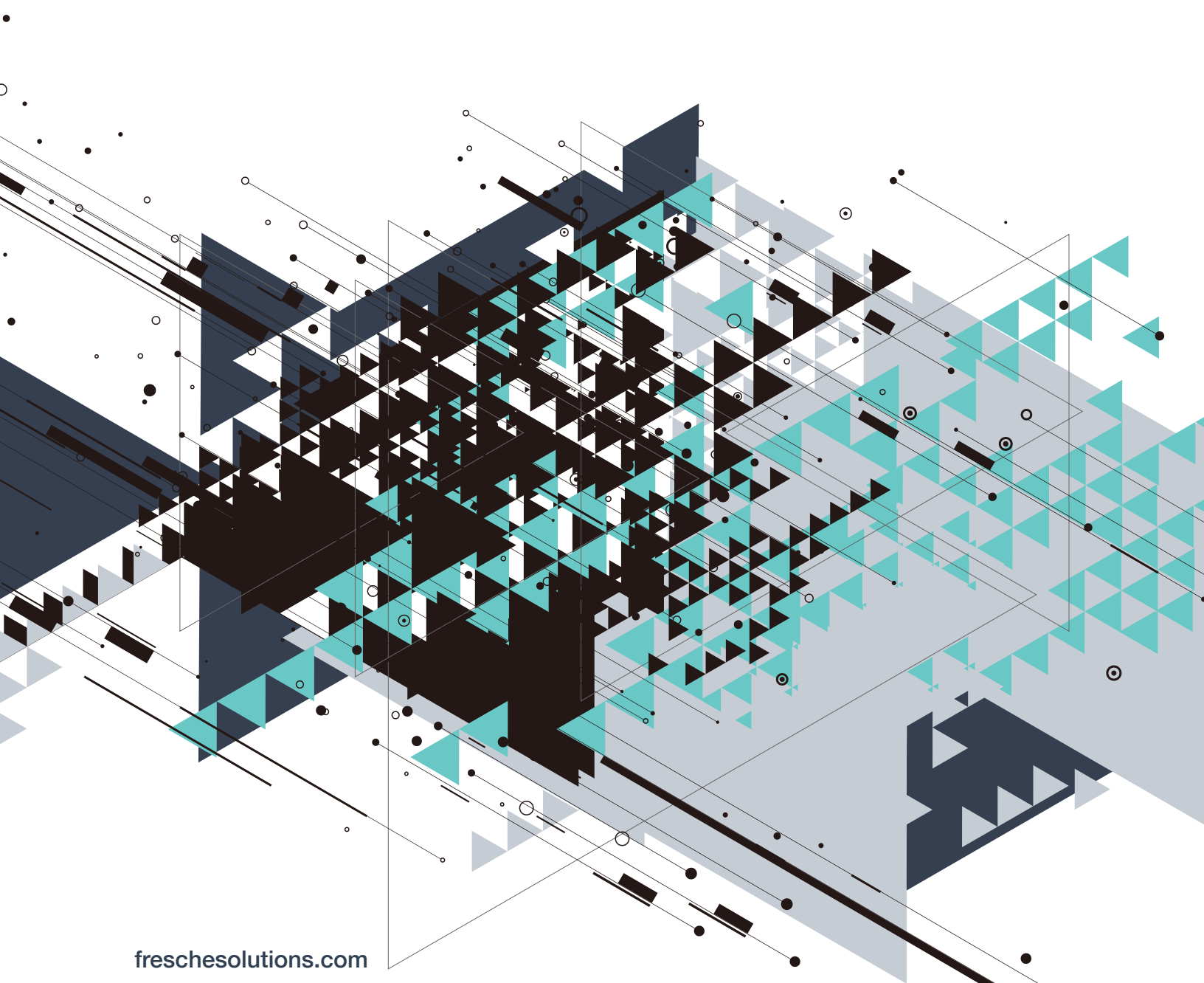


Executive Summary

Why Smart Modernization is the Path to Digital Transformation



The Path to Smart Modernization

While it is generally understood that companies achieving digital mastery are **26% more profitable**¹, for most businesses, digital transformation is proving to be a very difficult task.

According to industry research firm Gartner, digital transformation initiatives in large traditional enterprises, on average, are taking twice as long and cost twice as much as anticipated². Businesses spent \$1.3 trillion on digital transformation last year. 70% of those investments went to waste³.

This evidence of epic failure to modernize raises some key questions:

1. What is driving digital transformation?
2. Where are organizations going wrong with respect to modernization?
3. What is the best/most efficient/smarter way forward?

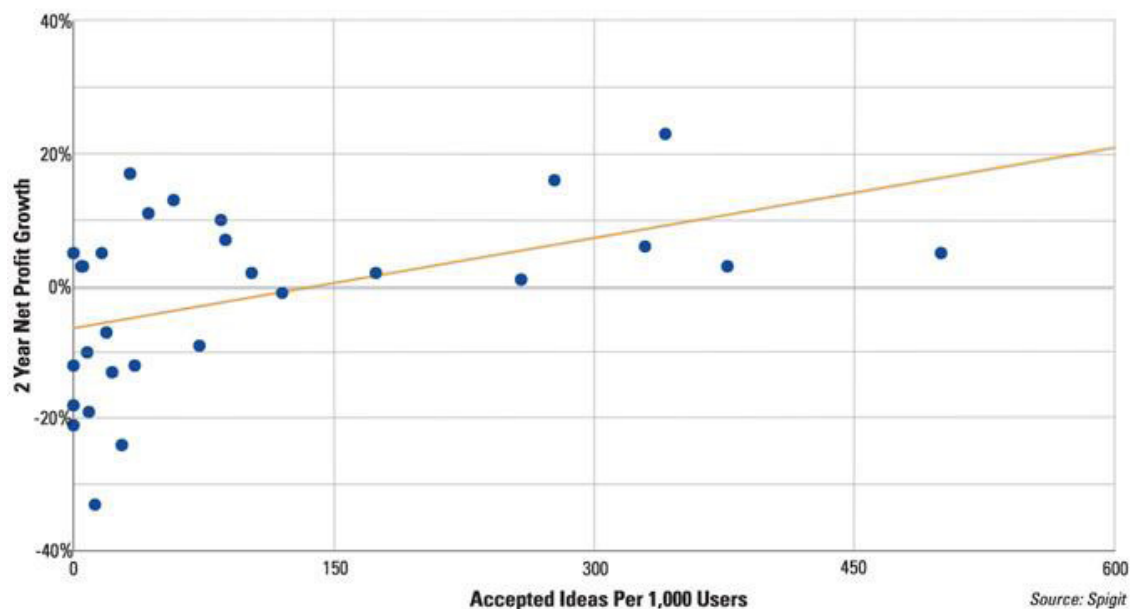
Digitally transform, or face the business consequences

Industry executives today are bombarded with information outlining the key drivers behind business transformation. They are urged to undertake intensive modernization of the information technology platforms that support their mission critical processes - or risk losing business advantage and market share.

Market research and consulting organizations have produced volumes of in-depth analysis on these topics, highlighting successes and failures of various modernization initiatives adopted by companies in all industry sectors.

There is one common characteristic emerging from all these studies. Companies must develop an ability to adapt faster than ever in order to weather disruptive business and economic models and counter fierce competition from emerging players in today's global economy.

While there is clear evidence⁴ that innovative companies that leverage emerging technologies and platforms are more profitable, productive and offer better customer experience, there are also plenty of examples of innovation myopia littering the enterprise world.



From Kodak to Yahoo to JCPenney, we have all witnessed the disappearance of one-time market leaders that failed to innovate and faced the consequences. Negligent to adopt new business models and new technologies, these companies failed to recognize and respond to surrounding market change and emerging consumer behavior generational gaps.

Shifting global dynamics drive the need to innovate

Demographic characteristics play an important role in the corporate transformation landscape. Younger generations are technology-savvy consumers, live in a highly connected world, demand instant gratification and are less preoccupied by long-tenured careers with one organization. The majority now enjoy working as independent contractors.

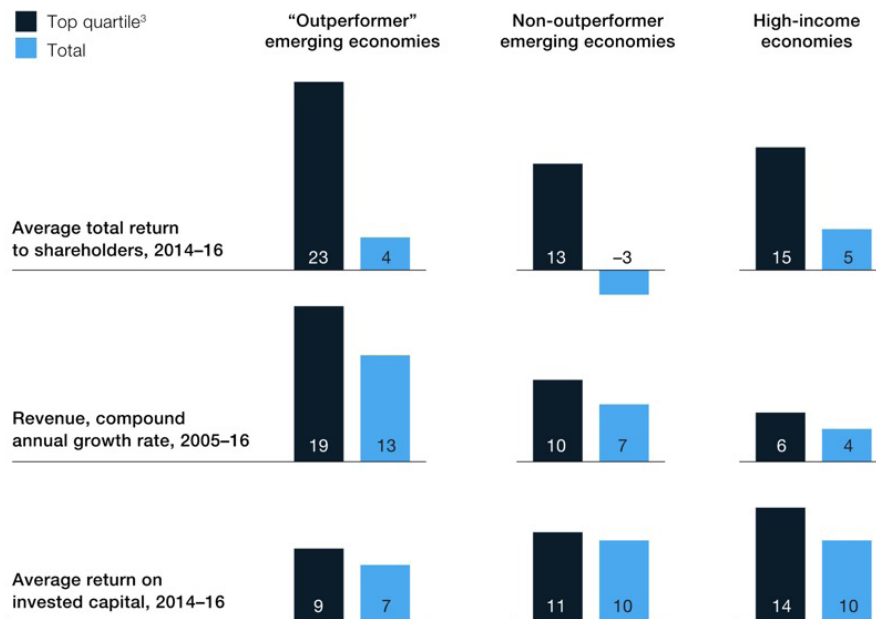
At the same time, skill shortages emerge as a major risk in the industrialized world as our aging workforce nears retirement and the demographic curve of the western world accelerates the transfer of production facilities and jobs toward world regions with younger populations, such as the APAC countries. These shortages are expected to cost technology, media and telecommunications industries \$449.7 billion in unrealized revenue⁵.

Combined, these dynamics put additional competitive pressure on companies trying to survive and grow amid this turmoil.

Emerging countries' eagerness to leverage an increasingly highly educated population has created a shift of research and development activities from the western world to other parts of the globe. These emerging nations have become the epicenter of global innovation, as exemplified by the higher numbers of patents⁶ being filed.

Just as innovation was a significant driver of productivity for decades in western world, our pace of innovation is now being surpassed by the sheer brute force of population. Eastern countries are quickly displacing those of the west as the new drivers of our global economy.

Key indicators between 2005 and 2016, % (n = 27 economies,¹ 5,056 companies²)



¹Outperformer emerging economies include China, Hong Kong, Indonesia, India, Malaysia, Singapore, South Korea, and Thailand; non-outperformer emerging economies include Argentina, Brazil, Egypt, Mexico, Nigeria, Pakistan, Philippines, Poland, Russia, South Africa, Turkey, and Venezuela; and high-income economies include Canada, France, Germany, Italy, Japan, United Kingdom, and United States.

²Publicly listed companies with more than \$500 million in revenue in 2016.

³"Top quartile" is defined based on average total return to shareholders over the past 5 years.

Disruptors threaten incumbent market leaders

Our economy is also impacted by innovative business models that aim to revolutionize the client experience through a robust and creative use of connected technology.

‘Disruptors’ such Google, Amazon, Alibaba and Uber (to name just a few) have drastically evolved our way of life. This intermediation trend is spreading into every business sector forcing slow, traditional business players to transition into the role of commodity providers, characterized by low-profit margin.

As the product of a new business innovation wave, these fast-growing digital organizations operate without frontiers, have privileged access to the end client, enjoy international reach from the start and benefit from a tax-efficient business model that converts to clear competitive advantage. These disruptors also enjoy privileged access to capital and are excused from profit for years; or at least until one of them emerges as a champion of the industry, displacing more traditional organizations. They have the potential to displace any existing market leader that can’t rapidly adapt and respond.

Information technology as a business transformation enabler

Business transformation is driven by a necessity to adapt to an ever-changing environment. Organizations must execute on that business transformation at a pace that maximizes the probability of success and survival.

While change in the business world is a fact of life, it is also true that resistance to change is an intrinsic characteristic of human nature. Finding the best transition strategy from source to destination remains an elusive challenge for many organizations, as illustrated by the high rate of failure of business transformation initiatives.

Resistance to change can undermine transformation ROI

There is no single magic transformation recipe that fits all. However, above all else, organizational culture remains the most critical success factor in any business transformation process, whether it is merger or acquisition, a reorganization, a business process redesign exercise, or a large information technology project. Digital transformation requires a radical rethinking of the way an organization uses technology, people and processes to effect change.

When resistance to change exists in excess within a company culture, transformation initiatives are put at risk, with most failing to achieve their projected return on investment (ROI)

“IT leaders, CIOs specifically, need to stop being so passive. I view the role of IT, the role of the CIO as being frankly one of the most important, if not the most important role at the leadership table today. Because company CIOs that can’t understand how to use technology to change their business models are going to find themselves somewhat out of a job.”

- Jeff Immelt, CEO, GE

On-demand IT services make innovation attainable and affordable

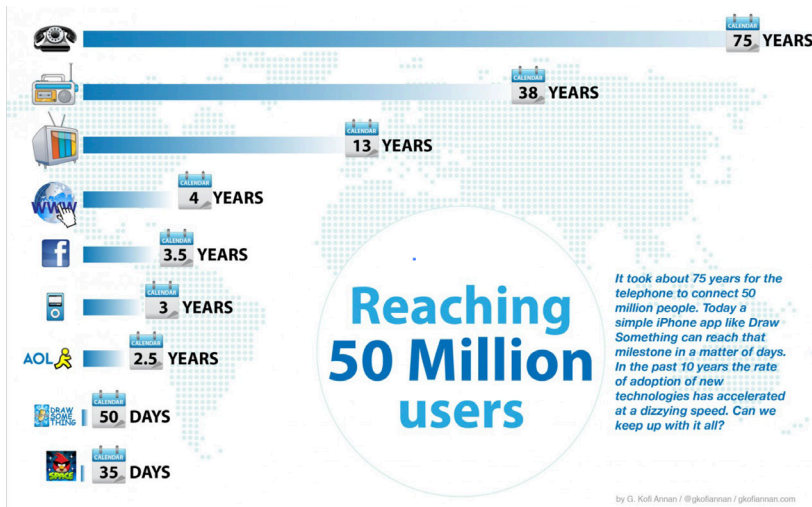
Over the last few decades the information technology industry has proposed multiple approaches to business transformation aimed at optimizing the cost structure of client organizations. There’s been a shift away from home-grown applications to software package implementations, from in house infrastructure and operations management to outsourcing, and lately, a move to cloud environments to provide a large spectrum of service on demand. Information technology expenditure has moved from a capital to operational expenditure. As a result, service on demand IT providers have been able to deliver a full spectrum of resources and provide core business process support at a reduced cost to their client organizations by more fully, distributing innovation costs across a broad customer base.

Personal computing changes the pace of technology innovation

The emergence of personal computing in the 1980s dramatically impacted the evolution of information technology worldwide. Potential technology buyers began moving away from proprietary systems to the more commonly known UNIX world, which had grown in popularity through colleges and universities.

For the first time, individuals had tools in hand to write computer programs. What began as a curiosity, soon accelerated at the speed of light. This distributed capacity for technology innovation quickly became a game changer for industry.

Microsoft and Apple took hold within consumer markets with their affordable computers and user-friendly interfaces. Add the arrival of the internet and the emergence of developer communities, and the foundation was laid for the emergence of cloud computing, open-source technologies and a more efficient communications medium.



Mini-computer companies such as Digital Equipment Corp. (DEC), HP and others were the first to fall victim to this new wave of innovation. They quit the field after trying to adapt, but were too late to the game.

Only IBM and its Power Systems IBM i (AS/400) midrange servers survived the storm, insulated by the system's reliability, security, low cost of ownership and an indefectible, highly satisfied client base.

Today, in the late stage of this personal computing innovation cycle, the emergence of social media provides companies with unprecedented access to data related to user behavior, presenting new opportunities for big data analysis and artificial intelligence. It also raises concerns related to new threats to security and invasion of personal privacy.

Adapt or die

Adaptability remains the most efficient way to survive in the face of relentless innovation.

Not every company can afford a large research and development budget, but most can take advantage of new technologies to absorb change, adapt their workforce and transform core business processes. However, an organization's ability to adapt swiftly and cost-effectively can be inhibited by the anchor of technical debt culminating from years of less-than-optimal investments in technology.

Fresche is perfecting the digital transformation journey for IBM i

Modernization is frequently inhibited by a skills shortage and by time-to-market constraints as they relate to legacy programming languages and related databases. As a leader in application modernization of midrange servers for more than twenty years, Fresche is committed to perfecting the modernization journey to improve the business and technological transformation success rate.

In our niche market, IBM i systems have consistently proven to be highly reliable while maintaining a very low cost of ownership. However, when a business transformation initiative demands IT eliminate the technical debt the organization has accumulated over decades, IT leaders have serious challenges to overcome. They must present to their company executive a modernization project that often represents multiple times the annual operational budget required to run the mission-critical applications. Locked between two equally unpleasant courses of action, organizations have neither the resources (financial or human capital) nor the stomach to move forward with a modernization project. As a consequence they remain in a state of inertia — and as a result, increasingly vulnerable to the disruptive forces at play in their market.

An effective, systematic approach to transformation proven with enterprises around the globe

Developed over decades and perfected in use across hundreds of enterprises around the globe, Fresche has developed a smart business approach that makes innovating through modernization not only possible but achievable over time. By bringing together application services, automated system conversion along with a favorable deal structure, Fresche can pave the way for modernization, overcome senior executive objections to modernization efforts and costs, and help clients realize true ROI on transformation initiatives.

While many modernization initiatives are driven by a strong technical bias around target technology, Fresche takes an agnostic view, utilizing every opportunity and technology, always with business goals and objectives in mind.

To minimize business disruption and facilitate change associated with implementation of new processes, software solutions and best practices, Fresche promotes an approach that targets the best fit for each organization tailored to budgets and risk along with appetite for

innovation and the need for competitive capability and time to market. By managing the modernization journey through a process of defined, incremental steps, enterprises can evolve their applications at a pace they can afford by modulating their IT spending over time and in line with company financials while still keeping pace with competitive pressure.

Modernization at pace is the smart approach

Modernizing core applications while minimizing costs and business disruption are key success factors in digital transformation. There are also different journeys for different applications. When considering replacement, some mission-critical applications cannot be aligned to a commercial off the shelf (COTS) software package. Frequently, competitive advantage has been “baked into” home-grown applications supporting core business processes.

Fresche does not hesitate to recommend the move to an appropriate software package for back-office applications such as accounting and human resource systems. However, when it comes to mission-critical applications, automated conversion is often the most efficient way to solve technical obsolescence and navigate around skills shortage, while preserving competitive advantage and key business intelligence.

A proven partner capable of delivering transformation ROI

Modernization of mission critical legacy systems is the first step to digital transformation. It provides a solid foundation for organizations to take advantage of open source programs, cloud computing, web access and analytics.

With Fresche as a partner, enterprises gain in-depth expertise on the system modernization, as well as a one-stop-shop for the modernization tools and services IBM i enterprises require for a successful transformation journey.

With over twenty years of experience and more than fifty modernization projects for Fortune 500 companies under our belt, Fresche has proven its ability to successfully spearhead high-return transformation initiatives and deliver modern and adapted systems that allow companies to fully leverage and capitalize on the intellectual property (IP) built up over time that is locked within legacy environments.

Companies who have strategic investment in IBM i and in programming languages such as RPG, COBOL and CA 2E (Synon) can engage with a Fresche modernization expert to explore their options.

[Book a free whiteboard session with Fresche's client advisory team to start developing your strategy.](#)

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