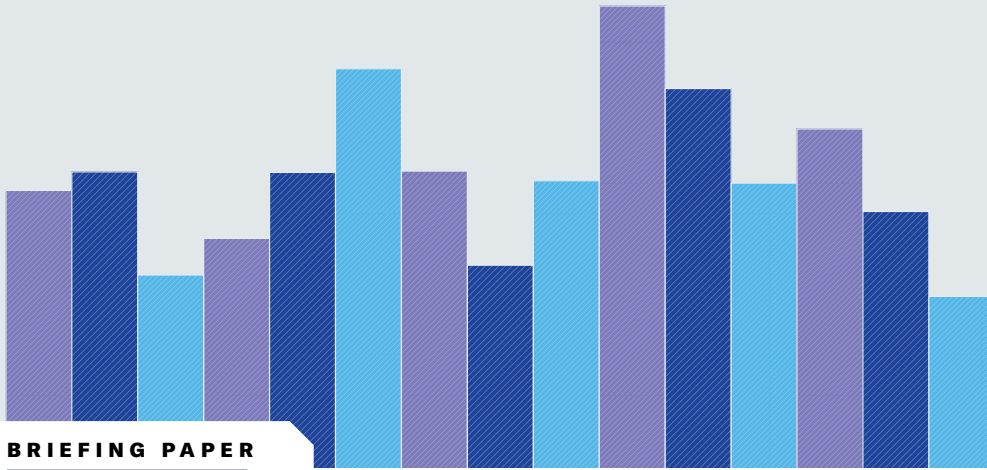




**Harvard
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ANALYTIC SERVICES



Boosting Scale and Agility to Accelerate Breakthrough Business Transformation



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Pham Minh Tuan
Chief Executive Officer
FPT Software

Over the past decade, organizations around the world have struggled with realigning people, processes, and technologies to drive innovations and transformations. As we navigate this evolving landscape, we find that success stories are not confined to traditional powerhouses. Rather, emerging economies like Vietnam have become excellent business and technology investment destinations to mitigate geopolitical-related risks while driving speed and scale, especially for medium-sized digital transformation projects.

This prevailing trend finds its roots in Vietnam's dynamic landscape as one of the world's fastest-growing digital economies. The country stands among the top nations with the most IT graduates, with 160 universities with STEM-focused programs providing comprehensive training in this domain. Coupled with its robust 86% internet penetration rate, burgeoning tech ecosystem, favorable business environment, and people's ambition and willingness to embrace unforeseen challenges, Vietnam stands among the top seven of the Global Services Location Index 2023.

As Vietnam's leading technology corporation with tens of thousands of digital transformation projects globally, FPT is firm in its stance that the most common business requirements for companies of any size or industry are speed and scalability, driven by Agile methodologies. For many industry titans, cumbersome legacy systems were once growth enablers but are now barriers to competitiveness; hence, modernizing these obsolete systems is becoming more imperative than ever.


Recognizing this, FPT leverages our diverse capabilities, best-shore delivery models, and Vietnam's competitive edges to maximize speed and scalability for clients worldwide. Our unique values, including a robust technology ecosystem and an adaptive and agile culture, as well as our very own education system (FPT University), have enabled us to live our pioneering spirit and scale up our workforce rapidly to accompany our customers. This ethos is rooted in our devotion and unwavering commitment to our clients, evident in critical times like Japan's Fukushima disaster in 2011 and the recent Covid-19 pandemic, when thousands of FPT people volunteered to stay abroad with our customers and ensure the successful completion of their projects.

This paper tells stories where strategic investments in emerging technologies and Agile methodologies have enabled successful transformations. It also explores how enterprises can amplify their agility with vendor consolidation: condensing their long list of IT vendors to one or very few third-party service providers, which is also one of the most prominent success stories that FPT has delivered for our global clients.

Not just an exposé of the modern transformational landscape, this paper also emphasizes FPT's dedication to driving this paradigm shift. For business leaders and readers seeking a compact path to harnessing the power of digital transformation, we hope this report stands as your compass, guiding your journey toward accelerated breakthroughs.

To learn more, visit www.fptsoftware.com.

Boosting Scale and Agility to Accelerate Breakthrough Business Transformation



Good timing separates the business haves from the have-nots, but that's rarely a matter of luck. Fortuitous outcomes require careful planning, decisive action, and ample resources. That's why laying the groundwork to generate results such as time-to-market breakthroughs has never been easy. In the past decade, many organizations have learned how difficult it is to succeed in digital transformation, where organizations must realign people, processes, and technologies to innovate. Complicating matters, developing and deploying timely products or innovative service offerings often requires leaders to shed complex legacy systems that once enabled organizational growth but eventually impeded competitiveness.

Amid these formidable challenges, digital transformation remains a work in progress for most enterprises. Many organizations require more speed and scale to execute their business objectives. Today, IT leaders no longer view digital transformation as an end in itself—it is the spear tip of a comprehensive modernization program. In a *CIO* magazine study released in January, transforming existing business processes such as automation and integration ranked third (at 38%) on a list of initiatives expected to drive IT investments.¹

“In today's era of high uncertainty, we need to approach the correct answer while repeatedly testing hypotheses,” explains Keiichi Kogure, president of the KDDI Agile Development Center Corporation, a software development unit of one of Japan's largest telecommunications companies, based in Tokyo. KDDI decided that Agile development was suitable for enterprise projects in

HIGHLIGHTS

Agile methodology prizes getting work done quickly and transparently for stakeholders, but even more importantly, **Agile mandates organizational collaboration and alignment for successful digital transformation.**

Think of the **new digital backbone** as more than a cloud; it's a **shared approach to application development** built on Agile methodologies and best practices.

Some large companies don't hesitate to **partner with service providers based in emerging economies** such as India, Vietnam, or other countries in Asia.



“We need to approach the correct answer while repeatedly testing hypotheses. The use of IT is accelerating the speed of competitors, and speed is an absolute prerequisite for differentiation from other companies,” says Keiichi Kogure, president of the KDDI Agile Development Center Corporation.

2013, and since then, it has enabled KDDI’s software teams to significantly increase the pace of service delivery for customer needs. Says Kogure: “The use of IT is accelerating the speed of competitors, and speed is an absolute prerequisite for differentiation from other companies.”

While Agile methodologies and practices address both speed and scale challenges, digital transformation must also target—or overcome—operational complexity. For example, many companies embed analytics into their digital operations, aiming to adopt data-driven management practices.

The problem is, “many companies confuse analytics and digital transformation,” contends Christopher Brosse, a management consultant at GOOD4Y and former Airbus data governance officer based in Toulouse, France. “For many companies, it is important to do digital transformation to improve their daily business activities such as on-time delivery or time to market. What makes it difficult is that [becoming] a data-driven company requires a global company transformation.”

This paper will examine how companies can boost their scale and agility to accelerate and achieve their key business transformation objectives—shedding legacy systems that stand in the way. The paper will highlight how companies such as Cox Automotive and KDDI harness Agile methodologies to bring innovative digital solutions to market faster than ever. And it will explain how they obtained the required talent to scale large software engineering projects while managing risk and aligning stakeholders with greater efficiency.

Says Brosse: “As digital transformation requires many different business stakeholders, Agile methodology is very adapted to be effective and more efficient.”

The Rise of Agile Practices

In February 2001, at the inception of The Agile Manifesto,² a software engineering approach called the Waterfall model was standard operating procedure across enterprises. With Waterfall, a software team codes until the application is ready to test. On the other hand, with Agile, software engineers break a development project into small chunks—performing frequent tests while working iteratively. Over time, Agile’s

primary advantage over Waterfall became apparent: frequent stakeholder involvement and approvals. In essence, Agile coding happens in brief time frames, and management continually reviews the work, which ensures a constant state of alignment.

The Manifesto, endorsed by a team of 17 developers during a retreat at a Utah snow lodge, states: “Through this work, we have come to value: individuals and interactions over processes and tools; working software over comprehensive documentation; customer collaboration over contract negotiation; [and] responding to change over following a plan.”

Agile methodology prizes getting work done quickly and transparently for stakeholders, but even more importantly, Agile mandates organizational collaboration and alignment for successful digital transformation. Reaching organizational alignment is tricky in any setting, but it’s imperative to collaborate with domestic or global service providers successfully. **FIGURE 1**

Removing Complexity

Among a number of challenges that companies face in attaining speed and scale in their digitalization efforts is complexity.

The authors of a digital transformation article in the August 2021 edition of *Harvard Business Review* conducted a two-year study at one of Europe’s major banks that found removing complexity helps accelerate digitalization.³ Yet, a Gartner study of board of director members at various organizations, released in March 2023, finds that just 19% of boards say their companies have made progress toward or have achieved their business transformation goals, while only 30% of those surveyed say they have made significant advancements toward reaching their goals.⁴ This trend is altering perceptions about the purpose of digital transformation.

Atlanta-based Cox Automotive, a subsidiary of Cox Enterprises, is the world’s largest automotive services and technology provider. The company tailors solutions for car shoppers, automakers, dealers, retailers, lenders, and fleet owners with a family of trusted brands that includes Autotrader and Kelley Blue Book. Primarily formed by acquisition, Cox

FIGURE 1

Where Business Transformation Rates as an Investment Priority

Transforming existing business processes, such as automation and integration, rates third

In 2023, which of the following business initiatives will be most significant in driving IT investments in your organization?



Source: State of the CIO Study 2023, CIO, January 2023

Automotive contains disparate parts and different approaches to building value—in the physical or digital realms. “We grew through acquisition, intentionally buying software products and offerings, rounding out the complete solutions for our customers, in both the wholesale and retail sides of the [automotive] world,” says Cox Automotive’s chief technology officer, David Brooks. “These were different companies with different cultures, different technologies, different approaches, and different strategies around the cloud and everything else. So, our mission was, how do we really drive all that together to build a much more cohesive offering and become Cox Automotive?”



“These were different companies with different cultures, different technologies, different approaches, and different strategies around the cloud and everything else. So, our mission was, how do we really drive all that together to build a much more cohesive offering?” says David Brooks, Cox Automotive’s chief technology officer.

Brooks needed to formulate a plan to ensure that the company’s acquired products would drive more customer value together than they would otherwise achieve separately. “People were really excited about integrating people, products, and services,” he says. But he realized that the acquired organizations and teams lacked “common engineering practices, strategies, or tools.” Brooks shifted technology operations to the cloud to standardize platforms while reducing the risk of perpetuating disjointed business practices or business function processes. Moving to the cloud not only streamlined operations but also ultimately improved the company’s governance and reduced unnecessary overhead.

Another one of Cox Automotive’s initial moves was forming “centers of excellence” to implement its Agile framework, involving experts in engineering, architecture, product, data, and what Brooks calls “solution delivery.” These centers of excellence teams feature solution architects who manage Cox Automotive’s transformation and engineering tooling strategies.

Brooks believes it’s a mistake for organizations to tackle large technical challenges “if you don’t have the operating model in place to be successful. Focus first on how you operate a large-scale Agile organization and know that you’ve got control over what you’re building and the ability to deliver repeatedly and reliably. Make sure you’ve got all that in place, then start these journeys around new technologies and digital transformations. Because if you start with poor-quality operating models, everything else is just too much.”

As Brooks considered various ways to scale and improve his software development operations, he opted to slash the overhead of managing more than 200 third-party service

providers that he'd mostly inherited from the acquisitions—landing on just three altogether. It worked, says Brooks: “Within a year, we were seeing a return on investment just from the consolidations, because we were able to address a lot of craziness.”

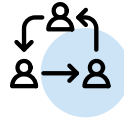
Developing a Strategic Purpose

Launching a new business unit is easier without the encumbrances of legacy technology or process considerations. But that wasn't the case for Brooks as he pursued a strategic business quest to achieve greater speed and scale. Brooks wanted to enhance his company's digital capabilities to stitch its many acquisitions with automotive-related product lines into a unified, industry-leading brand. Building a digital backbone became one of the company's first objectives. Think of the new digital backbone as more than a cloud; it's a shared approach to application development built on Agile methodologies and best practices. “I was trying to drive a common engineering ecosystem,” explained Brooks. The project formed the basis of a digital transformation central to the future of the Cox Enterprises business unit.

Brooks wanted every Cox Automotive company to utilize a common engineering ecosystem, but he didn't have an unlimited budget. “Early on, as we started our cloud journey, we set a metric with our CFO,” he says. “We knew we were going to layer on additional operational expenditures, and when you're in that bubble, you've got to try and manage costs through the whole thing.” For example, Brooks consolidated many of the newly acquired data centers. Next, he says, he and his CFO created a model called “cost of compute, and then we committed to keeping those costs as a percentage of revenue flat. That meant we had to take costs out of our physical infrastructure. That's a really important metric because I think it helped drive buy-in at the rest of the C-level.” However, once revenue climbed, Brooks increased spending because, as he notes, “the budget isn't flat.” It was just fixed.

Aligning Culture and Strategy

Those who study or implement digital transformation stress the value of aligning organizational culture and strategy. This effort boils down to aligning individuals on major shared objectives and KPIs. When stakeholders are misaligned, the digital transformation initiative may fall behind schedule or flame out altogether. The signs are often clear: “You will see legal in one way, security in another way, and business and data governance and data management in another way,” observes GOOD4Y's Brosse. When Brosse sees leaders not embracing the same business objectives, he asks the executive team: “Do you have a company data strategy that is clear to everyone that you have reviewed and signed with all data




“Do you have a company data strategy that is clear to everyone that you have reviewed and signed with all data stakeholders, communicated company-wide, and supported by a company initiative?” asks Christopher Brosse, a management consultant at GOOD4Y and former Airbus data governance officer.

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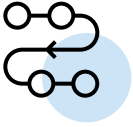
What was particularly challenging for Brooks to measure was how Cox Automotive would change “mindsets.” His teams had a lot of expertise in specific areas like customer relationship management or dealer inventory management. “We didn't want to lose that,” he says. “But what we're trying to overlay now is this concept of ‘you can't individually succeed.’ Cox Automotive as a company is viewed as one entity, and these products have to feel and work seamlessly together for a great customer experience.” To help facilitate this transformation, the Cox Automotive scrum teams adopted a Scaled Agile methodology that included a standard way to go about the Agile process with a set of metrics and a common Agile life cycle management tool. “When you've got hundreds of teams and you're driving a big integration, you've got to have visibility into what's actually happening,” Brooks says.

Before adopting the Scaled Agile model, Brooks' team struggled to meet customer expectations around product roadmaps. “Customers would be frustrated around whether they could count on feature delivery on a timely basis, those sorts of things,” says Brooks. “We've solved that. Those aren't our problems anymore.” Now, Brooks says, the focus is on creating a “customer journey that makes the dealer, OEM, lender, or fleet owner more profitable. We're talking about their business outcomes and how our software enables their success. Being able to be a reliable software provider has driven down customer churn and driven up our customer satisfaction numbers.”

One unheralded aspect of Agile methodologies is their positive impact on employee engagement. KDDI's Kogure believes that while Agile development is essential to achieving



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At KDDI, management demonstrated how it could adapt to change by optimizing the “internal approval flow” of software projects and “clarifying the scope of [project] authority transfer,” says KDDI’s Kogure.

digital transformation, “it is a method that continues to add value while changing.” Scrum, the most popular Agile framework adopted by KDDI, places significant emphasis on continuous improvement. Kogure sought to encourage empowerment and knowledge sharing, aiming to establish a culture of continuous improvement across the entire organization. “We put organizational issues into a ticket management tool and made them available for everyone to refer to, resulting in faster and more transparent organizational management,” Kogure explained. “This effort has led to increased employee motivation to participate in management and an improvement in eNPS” (employee Net Promoter Score) metrics.

“Digital transformation must be embraced by the entire organization in order for it to take place,” says Kogure. The pivotal consideration is how organizations endeavor to “change the mindset of all members involved in the project,” he adds. “Process change is also necessary because it requires speed and flexibility.” Management understanding and buy-in are essential components of these change management initiatives. At KDDI, management demonstrated how it could adapt to change by optimizing the “internal approval flow” of software projects and “clarifying the scope of [project] authority transfer.”

Measuring Success

Brooks monitors the progress of Cox Automotive’s digital transformation in various ways, including by studying metrics tracked on the cloud-based GitHub code repository. For example, cycle time tracks the amount of time each development team spends from inception to delivery of its work. “How far are we in this journey of launching new products and integrations?” he asks. “Those are some of the primary, big-picture wins, and then at the team level we’re doing all of your standard Agile metrics.” Brooks looked at

individual scrum team metrics during the pandemic, for instance, to see how teams were performing. “Those were interesting and helpful, because everybody was worried about what happens when everybody’s at home, and were able to keep things moving. Our metrics showed that our teams were chugging along—and some outcomes actually improved.”


Brooks established other metrics by tracking the feature throughput and feature velocity of his “several hundred geographically dispersed scrum” teams. Scrum—a word borrowed from rugby—is a way of describing small teams of fewer than a dozen software engineers who, in keeping with Agile principles, tackle coding in bite-size increments. Brooks intended the metrics to show that productivity increased by shifting resources to the cloud and placing better tools in the scrum teams’ hands. “As we drove more tools, culture, and capabilities, [we thought] that they would become more productive,” he says. “The teams would produce more features for basically the same cost. And that’s happened.”

Utilizing Partners

Achieving higher speed and scale in a large enterprise software engineering project is only partly about acquiring more skilled coders to meet deadlines; speed and scale satisfy some but not all major business concerns. Brooks wanted Cox Automotive’s digital transformation to deliver high-quality software capable of burnishing the brand and initiate knowledge transfer to establish a common and modern approach to software development. He spread Scaled Agile expertise across his several hundred scrum teams by infusing each of them with experienced third-party software engineers trained in Agile and related methodologies.

The transformation project focus shifted to integrating disparate teams and suppliers. “When we made these acquisitions, we had lots of different teams, with many different cultures, tech skills, and tech talent,” says Brooks. “We had to drive toward more common technology platform tools and capabilities. And the easiest way to do that is to start with a partner—already well versed in AWS [Amazon’s cloud platform] and those tools and architectures—so we could form hybrid teams, and my teams could start to pick up those skills.” Brooks referred to this blending process as a “force multiplier for injecting those skills and tools” into his teams. A critical litmus test for this approach is achieving low turnover on both his and the partner’s teams.

As Brooks began sourcing a third-party service provider, he sought a firm that could provide sufficient software engineering talent and be a “real partner who could help us drive new strategy.” Brosse believes that finding that type of balance in a partnership is never easy. “The problem is it is really hard to find contracting companies with a global picture from the start to the end,” he says. While some development



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skills are easy to source, a provider may offer a “subcontractor for change management and transformation management of the company, but not one doing both with the full picture.” And then there’s structure and communication to consider. “If you don’t have a methodology for managing fast collaboration, you’re lost,” says Brosse. “This is where Agile is providing many advantages.”

Some large companies don’t hesitate to partner with global service providers based in emerging economies such as India, Vietnam, or other countries in Asia. For Brooks, Cox Automotive’s move in this direction isn’t about diversifying geopolitical risk or seeking the lowest-cost software developers. Instead, it’s all about tapping a high-quality workforce that enables Cox Automotive to scale up teams quickly and confidently—and about finding a lasting partner. The outsourcing firms hire from “good engineering schools,” he says. “They care about their craft, and we love that. And there’s a cultural dynamic of where they are as a country—many are the first or second in their family to go to college and they want to grow in their careers, and we see a lot of ambition in those teams.”

Brooks allows that language barriers are one of the challenges of deploying global hybrid teams. “I probably overestimated our ability to quickly solve that,” he says. “We had to kind of work through it.” But, he adds, “on the positive side,” he’s impressed by the service providers’ engineering talent and says it matches the quality he would hire into his organization. Most importantly, he adds, the service providers must “create an environment where people want to be—and I think we’ve reached that point.”

Kogure believes software development partners can solve many organizational challenges, but it should be highly collaborative. A partner can “compensate for our lack of quantitative and qualitative capabilities,” he says, “but I think that the possibility of gaining new insights from an external perspective is also an advantage.” In his view, an Agile-development partnership is better than “conventional

development contracting” because the partners “work on equal terms” to achieve organizational objectives. “The mindset of partner companies to achieve these goals is vital,” he explains. Good partners must choose to “develop products and business success together as a common goal, and to emphasize the growth of the team and encourage it as a company.”

Conclusion

Digital transformation is a complex undertaking, one that requires significant human and technology capital along with a well-conceived strategy to succeed. When business technologists assess their team’s capabilities and factor in their organizational risk tolerance, many determine that they cannot execute their current operations and simultaneously embark on a large-scale digital transformation without a partner.

Talent constraints have long created opportunities for global service providers to prove their value to business customers. Brooks knew he didn’t want to work with a commodity type of outsourcer on a project so pivotal to his company’s future. “We were looking for a real partner who could help us drive a new strategy,” Brooks recalls. He believed that choosing a development partner that specialized in Agile methodologies would deepen the quality and experience he wanted on his hybrid scrum teams.

The blending of local and global talent has enabled Cox Automotive to make significant strides in its digital quest to become a more cohesive business unit with deeper development capabilities. “Our challenge was that we wanted to get to a point where we have a much more cohesive offering,” says Brooks. Since hitting that target, Brooks has heard different types of customer feedback about his team’s work. “Customers used to be upset about whether they could count on feature delivery from us on a timely basis,” he says. “Now we talk about their problems and their business, and how our software can solve them.”

Endnotes

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