Brief: Agile Development And Customer Experience — A Marriage Made In Heaven

Embed CX Professionals Into Modern Application Delivery Early And Often

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WHY READ THIS REPORT

Companies are investing huge sums to enhance the customer experience (CX). Sometimes they embark upon a major digitalization or re-engineering of how their customers discover, explore, ask for, buy, use, and engage with their products and services; other times they extensively redesign their software interaction capabilities across multiple platforms. CX leaders and professionals find Agile development attractive because they're disillusioned with traditional IT groups that use waterfall development methods and have simply failed to deliver. This report explains why and how application development and delivery (AD&D) leaders need to seize this unprecedented opportunity to collaborate with CMOs, other C-level executives, and their business teams on Agile modern application delivery — or risk losing their attention forever!

AD&D TEAMS SHOULD LEAD CX IMPROVEMENTS FOR SOFTWARE THAT MATTERS

The customer experience is high on the agenda of global business leaders, right after revenue growth (see Figure 1). However, even if CX is secondary to revenue growth, the differentiating role that software plays in digital experiences means that CX is the most critical contribution that AD&D teams can make to help their firms win, serve, and retain customers. In fact, our research shows that CX improvements lead to significant and quantifiable boosts in revenue.[1]

Agile Teams Improve CX, But Can Only Go So Far On Their Own

Agile development has proven that it can deliver better-quality software by helping teams focus on what matters most to their business partners. The core of the Agile manifesto is the principle that software is valuable only if it delivers *business* value.[2] But just using Scrum, extreme programming (XP), and other Agile methods is not enough for AD&D teams to turn a good CX into a great one:
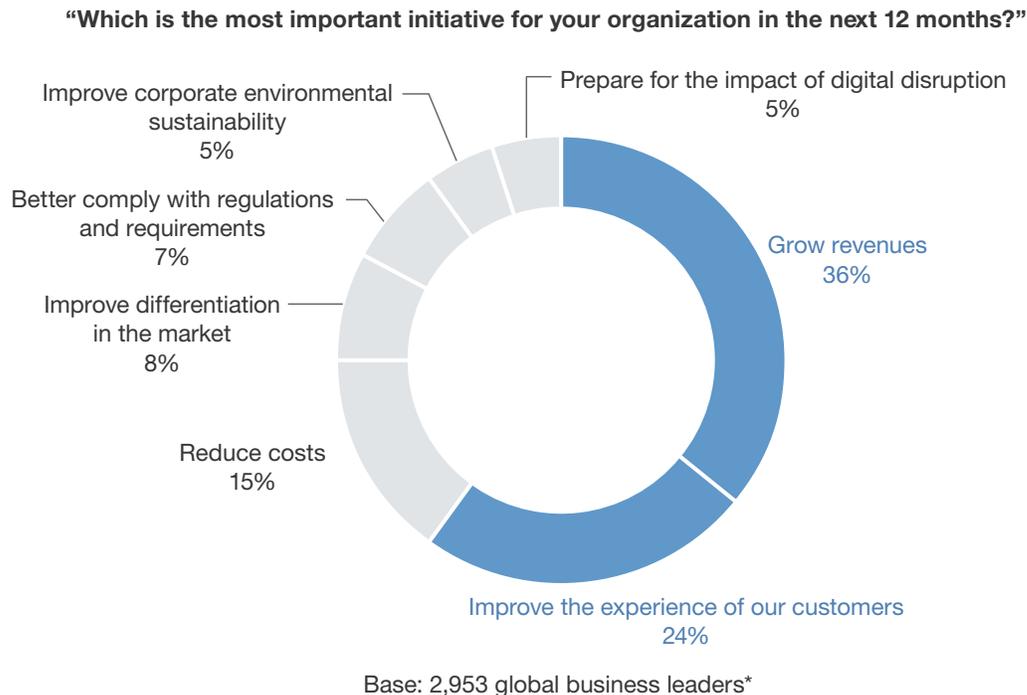
- **Good product owners make products successful but should do more on CX.** To ensure that new software can deliver its full value to the business, Lean and Agile development approaches require that the business be tightly involved as product owners (POs) or product managers. Good POs focus on Lean minimum viable product (MVP) techniques to better prioritize business needs in a series of frequent small batches. By correctly applying MVP, Telefónica O2 guaranteed that an Agile project to introduce a new mobile service would deliver what mattered most to business stakeholders and users, resulting in huge savings.[3] MVP can also be used to greatly improve CX by avoiding taking a big-bang large-batch delivery approach to user experience (UX) interaction design — which is increasingly a core element of the overall CX journey.

■ **Fast feedback loops can provide great input for improvement but don't transform CX.**
Modern AD&D teams strive to support continuous or short-cycle delivery of new features
for the business by adopting Agile.[4] However, the growing deployment of mobile apps means
that fast feedback from field users must be part of the overall Agile development, testing, and
delivery cycle. Mobile moments need to be transformative and improve CX in ways that
software has never been able to do before.[5]

■ **Continuous UAT gets products closer to what users need but doesn't test UX.** User
acceptance testing (UAT) allows customers and the business to provide feedback on usability
and functionality; fast delivery requires agile, continuous UAT.[6] Agile testing assumes that UAT
is done iteratively in each sprint. It all happens quickly, and testers need to make choices about
where they focus their time, while automation does the rest. Useful, intuitive, and enjoyable
interfaces need more input than what users can provide through UAT. Because good UX
designs are not easy to test, new practices are needed to ensure that good design is embedded
and not an afterthought.

Figure 1 Improving The Customer Experience Is High On The Agenda Of Global Business Leaders

"Which is the most important initiative for your organization in the next 12 months?"

Base: 2,953 global business leaders*

Source: Forrester's Business Technographics® Global Priorities And Journey Survey, 2014
*Respondents who had indicated at least one of these initiatives as being on their radar.

Business CX Professionals Think They Can Do Agile Without BT — But They're Wrong
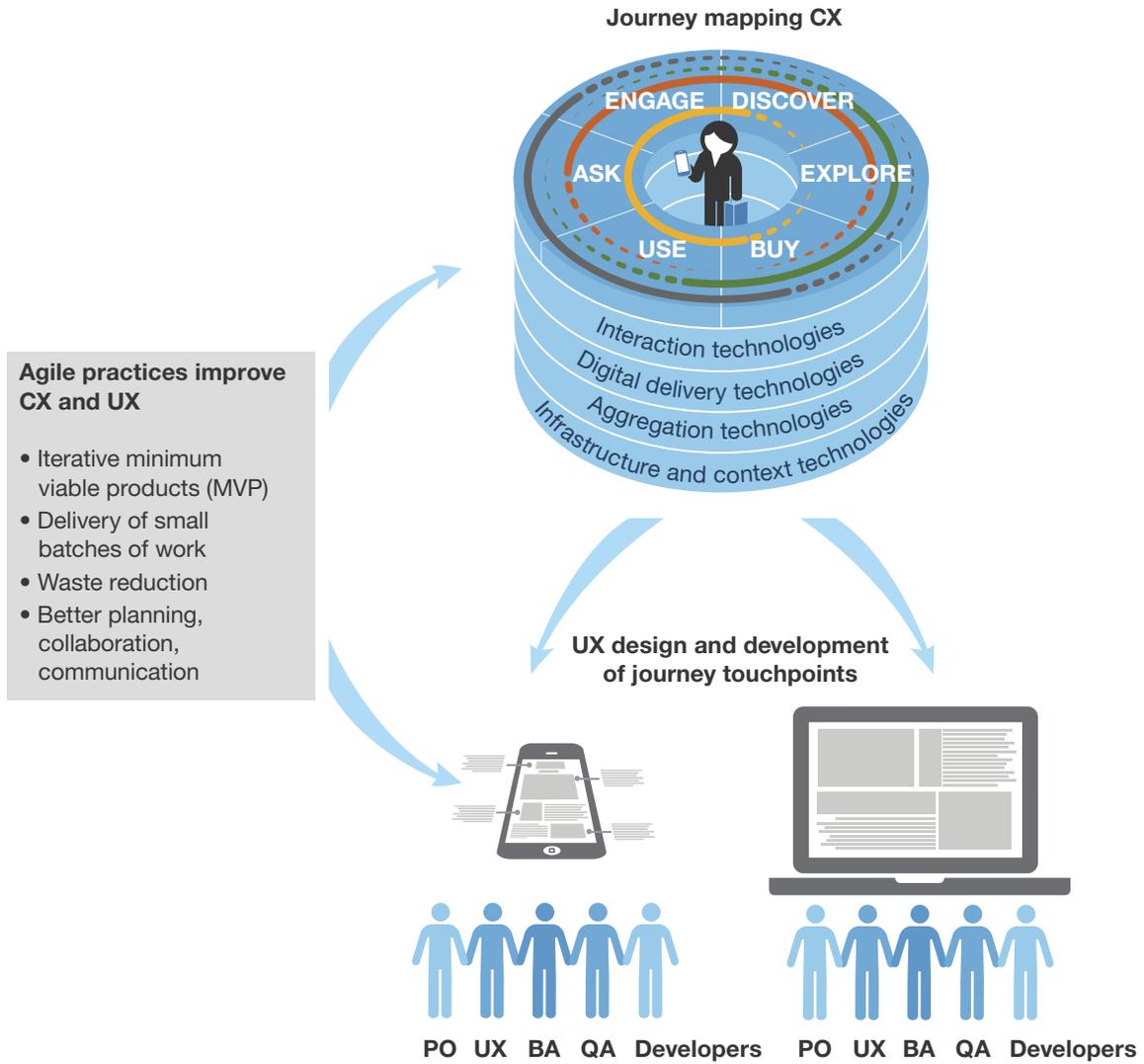
CX professionals find Agile development attractive because they're disillusioned with traditional IT groups that use waterfall development methods. They've heard or read about Agile — or have had direct experience with it — and think they can lead new Agile projects by themselves. So they often end up embracing Agile to fast-track and hone their own CX transformation programs.[7] However, sometimes they mistakenly underestimate the change issues involved and the barriers they need to overcome in transforming from using and managing an old delivery approach like waterfall to modern application delivery based on Lean, Agile, and DevOps.[8] To improve the CX of software, AD&D pros must be in the driver's seat when it comes to adopting Agile development. Here's why:

- **AD&D can keep the business out of the "Agile is easy" trap.** We've seen many failures due to the IT side falling into this trap; help your business partners avoid making the same mistake. During the early days of Agile adoption five or six years ago, companies underestimated the training, coaching, and transformation efforts tied to Agile. Many thought that their teams could actually deliver simply by attending an Agile training class and reading the handbooks. But it takes time; our research shows that learning to develop and deliver good-quality software fast is not a job you can improvise. Agile has an impact beyond the team performing it; it also affects functions like enterprise architecture, the project management office, and operations. That's a level of complexity that business teams can't handle alone.

- **AD&D leadership is critical to delivering great software at speed.** While some business teams have successfully adopted Scrum as an Agile project management method, delivering software quickly is another story. CX teams struggle to adopt Agile in the downstream, where strong software engineering skills are needed to automate tests and processes, integrate and test continuously, refactor code, and deploy in a fast-paced environment. Development initiatives led by CX cannot adopt Agile only in the upstream without getting technology management involved; the business will soon get disillusioned.[9]

PARTNER WITH CX PROS FOR AGILE DELIVERY OF MODERN APPLICATIONS

It's mandatory for AD&D leaders to serve the business by helping to improve CX — but it's also an unprecedented opportunity to support their CIO's business technology (BT) agenda.[10] This approach gets results: Spotify, a digital music services company, has a successful Agile development organization and has recently invested heavily in CX — resulting in an exceptional mobile experience for its users.[11] So what's the best way forward and what's in it for your C-suite partners? One opportunity is to leverage Agile practices to improve the overall CX journey by delivering in small, quick feedback iterations that deliver working software rather than prototypes or blueprints. Another is to improve UX design and development iteratively but uniformly across platforms (see Figure 2).[12]

Figure 2 Modern Agile Delivery Practices Can Greatly Improve Both CX And UX

Journey mapping CX

ENGAGE   DISCOVER

ASK   EXPLORE

USE   BUY

Interaction technologies
Digital delivery technologies
Aggregation technologies
Infrastructure and context technologies

Agile practices improve CX and UX

- Iterative minimum viable products (MVP)
- Delivery of small batches of work
- Waste reduction
- Better planning, collaboration, communication

UX design and development of journey touchpoints

PO UX BA QA Developers   PO UX BA QA Developers

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Bring Lean And Agile Modern Application Delivery Practices To The Table

Before your CMO or other C-level executives decide that they can do without you, start marketing your Agile and Lean modern delivery capabilities — it will be music to their ears. To do this, leverage some of the key Agile and Lean practices that are relevant for your CX partners. As your AD&D organization adopts Agile, you need to make the business aware of its new approaches and practices. Open execs' eyes by showing them how much you can improve CX by using Agile, Lean, and modern application delivery practices such as:

- **Iterative minimal viable products (MVPs).** Teach your CX and UX designers that they too can stop working in a large-batch waterfall approach by leveraging Lean techniques like MVP. Help them apply MVP to develop small, iterative batches of great UX instead. Explain how to divide and conquer and make better use of small iterations by creating wireframes and mockups and developing working software (using languages like XAML) right away for each iterative design. Implementing "just enough" UX design while getting feedback from users on the real deliverable is much more effective than using a large upfront design with throwaway prototypes.

  > "A lot of UX work in financial services, healthcare, and pharmaceuticals tends to focus too heavily on pixel-perfect design too early in the process. Another pitfall is validating design with requirements late in the process by comparing documentation with the software delivered. With Agile, this can all be optimized." (Anthony Handley, user experience practice lead, Magenic)

- **Delivering small batches of work.** Grooming the backlog — where CX/UX pros, POs, and developers work together — helps the team understand early on what the real business UX and design requirements are. But the real value of Agile comes when teams deliver user stories — including personas, journeys, and scenarios — quickly; show them to users and the business; and immediately loop any feedback back into the delivery process. Also, breaking requirements into smaller, more digestible chunks gives a better picture of what needs to be done in the long term while zooming in on the details. However, delivering and testing an experience in working software in iterations of two weeks or less requires dramatically changing traditional software engineering capabilities and implementing a continuous delivery capability engine that can push code from one stage to the next at a press of a button. This requires skills and technologies that only BT — including AD&D and operations and testing — can learn and provide.

- **Reducing waste.** While prototypes are a great way to pragmatically test experiences, there's a certain amount of waste associated with not delivering production-ready software right away. Having CX and UX design operate separately in distinct phases from delivery teams causes a lot of scrap, rework, and waste.

> "UX/CX design requires lots of balancing between what's doable and what's desirable. By having the developers sit side by side with the designers, you remove the delays in mixing the knowledge of what the makers can do with what the customers want. It enables 'Aha!' moments where you can create great customer experiences." (Zach Nies, chief technologist, Rally Software Development)

- **Inproving planning, collaboration, and communication.** Great CX and UX requires upfront planning. Agile also requires upfront planning, but not all of it happens during Scrum sprints; some planning and design is done even before sprint 0 — for example, enough to transmit sufficient information about a UX design to be able to kick off its development. New tools like Tandemseven's UX360 software platform allow this. UX360 enables ideation phases, dynamic persona creation, and journey maps that can be defined early on to be used later in Scrum teams. The platform's UX design artifacts can be mapped into epics and design stories in the Agile project management (PM) tool the teams are using — e.g., UX360 integrates with the Agile PM tool VersionOne. This type of iterative process between planning and development is especially useful to organizations that want to have a strong branding and standardization of UX across all of their software while also being able to exhibit running software based on their UX design early in the process.

  > "Developing a clear road map at the start gives a team a better sense of what successful delivery should look like. Although a six- to 12-month journey is a long one, Agile can show implementation of designs very early on. This helps drive energy, efficiency, and productivity with CX/UX designers." (Anthony Handley, user experience practice lead, Magenic)

RECCOMMENDATION

EMBED CUSTOMER AND USER EXPERIENCE PROS IN YOUR AGILE TEAMS

In the BT era, successful customer experience and user experience designs need a tight combination of business and technical skills; the modern delivery capabilities of AD&D teams are just as vital as business CX and UX skills. AD&D leaders need to make sure that:

- **You augment your Agile team with CX and UX pros.** The best way to achieve this is to make CX and UX pros part of your Scrum or Agile teams. Having CX folks sitting side by side with the developers guarantees osmosis between the roles and ensures that, when it's time to implement UX stories, developers are already familiar with them. Having CX and UX designers in your Agile teams will empower developers to deliver more usable and enjoyable software that embeds a great interaction experience that is better aligned to user and business needs.

■ **Your technology skills augment CX and UX business creativity.** With mobile and digital everywhere, technology is playing a greater role — especially in the design of interaction moments. Think about how various versions of iOS have introduced UI changes like borderless buttons, translucent bars, full-screen layout for view controllers, and design usability guidelines and content display. Developers can leverage their knowledge about the UX platform software development kits of, for example, Microsoft Windows, Apple iOS, and Samsung Android to have a stronger say in contributing new, innovative design experiences. Close interaction with the CX/UX designer will augment the quality of the UX delivered.

SUPPLEMENTAL MATERIAL

Survey Methodology

Forrester's Business Technographics® Global Priorities And Journey Survey, 2014, was fielded to 13,822 business and technology decision-makers located in Australia, Brazil, Canada, China, France, Germany, India, New Zealand, the UK, and the US from SMB and enterprise companies with two or more employees. This survey is part of Forrester's Business Technographics and was fielded from January 2014 to March 2014. ResearchNow fielded this survey on behalf of Forrester. Survey respondent incentives include points redeemable for gift certificates. We have provided exact sample sizes in this report on a question-by-question basis.

Companies Interviewed For This Report

CI&T	Rally Software Development
Experientia	Tandemseven
Jama Software	ThoughtWorks
Magenic	VersionOne
Neosperience	

ENDNOTES

[1] Our models show that the loyalty-based revenue benefit for a firm going from a below-average CXi score for its industry to an above-average score for its industry ranged from a low of $55 million for consumer Internet service providers to a high of $1.6 billion for wireless providers. See the March 27, 2014, "The Business Impact Of Customer Experience, 2014" report.

[2] The values and principles of the Agile manifesto are the most important artifacts that clients should deeply understand to truly gain the benefits of Agile. Source: "Manifesto for Agile Software Development," Agilemanifesto.org (http://www.agilemanifesto.org).

[3] Great product owners use MVP to succeed in delivering high priority features to their business. O2 (Telefónica UK) used various techniques to succeed in its Agile transformation. See the September 4, 2012, "Rightsource Your Agile-Lean Ecosystem" report.

[4] Successful modern application delivery teams set a four-step continuous improvement plan to become agile all the way through from requirements to deployment. See the July25, 2014, "Define A Software Delivery Strategy For Business Innovation" report.

[5] Mobile moments affect every part of your business, from marketing and sales to product development and employee productivity. If you serve the needs of a customer or an employee in a mobile moment, you can win their business and their loyalty. If you fail, an entrepreneurial company will step in and fill the need, disrupting your business. See the January24, 2014, "Re-Engineer Your Business For Mobile Moments" report.

[6] Agile disrupts everything that we know about testing, including what practices to use, what skills are needed, how to set up the testing organization, and how to leverage testing tools. Testing is a necessary evil — even for Agile development. Organizations adopting Agile need to act now: testing leadership, skills, practices, and automation must move to the forefront of development. See the January 15, 2013, "Consistent Performance In Agile Teams Must Include Testing" report.

[7] CX pros disillusioned with traditional development methods that are slow and lead to broken experiences embrace Agile to fast-track and hone their programs. Agile adds rigor and discipline to CX management practices by developing experiences iteratively with regular consumer feedback. As new business realities continue to push Agile adoption, CX pros will need to refashion their approach to customer understanding, measurement, and design. See the July 1, 2014, "Why Agile Matters For Customer Experience" report.

[8] Improving CX might mean removing software delivery barriers that affect strategic performance. See the August 4, 2014, "Overcoming Barriers To Modern Application Delivery" report.

[9] Agile brings true business benefits when it's applied both in the upstream (e.g., requirements analysis, project management, planning) as well as in the downstream (e.g., Agile testing, continuous delivery) See the February 5, 2014, "How Can You Scale Your Agile Adoption?" report.

[10] The age of the customer requires tech management to transform into a customer-facing function in specific ways. The increasingly crucial role that digital technologies play in customer engagement elevates the CIO role in business — if CIOs can move beyond the traditional IT focus on technology assets and adopt an expanded view that centers on customer experience and choice. See the November 15, 2013, "The CIO Mandate: Engaging Customers With Business Technology" report.

[11] Digital music service Spotify has been investing large sums in enhancing its customer experience, culminating with a major redesign across multiple platforms, including its iPhone app. The result is a more contextual, content-focused app that vaults Spotify into the ranks of the leading mobile experiences. See the May 28, 2014, "Brief: Spotify Retunes Its User Experience" report.

[12] Not all CX industry players agree that technology-driven methods can be used in defining the journey maps. For now, we want to stay out of that debate; it's too early — although we do assume that during improvements planning, firms could use Agile techniques as suggested in Forrester's report on modern application delivery assessment. See the August 4, 2014, "Overcoming Barriers To Modern Application Delivery" report.