The challenges and responses for enterprise architects in the digital age

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EA Survey Findings

The Challenges and Responses for Enterprise Architects in the Digital Age

Sharm Manwani and Oliver Bossert

Abstract

Enterprise architects face many challenges to be relevant to key stakeholders. The growth of digital business offers major opportunities for enterprise architects if these challenges can be addressed. The Enterprise Architecture survey created by McKinsey & Company and Henley Business School explores EA outcomes and capabilities to assess the responses to the challenges. This article highlights key findings from the survey as a call to action for EA leaders.

Key words

Enterprise architecture role, digital, stakeholders, survey

Introduction

The challenges enterprise architects face are illustrated by the Forbes article, "Is EA Completely Broken?". This states that *"misdirected Enterprise Architecture (EA) initiatives vastly outnumber bona fide examples of EA efforts leading to measurable business value."*

Yet, arguably with the advent of disruptive digital technologies, EA is even more critical to help redesign business and operating models. Digital business has helped IT evolve from the back office to the front line, but connecting the dots is not easy. Increasingly, digital business capabilities can create value by allowing a company to create new online products, establish an omnichannel strategy, run analytics, or increase process automation.

In order to contribute to the digital transformation, enterprise architects must ensure that organizations can manage the complexity of legacy systems while enabling the innovation critical to remaining competitive – particularly where there are new digital business entrants. Some experts argue that this requires a two-speed architecture (see referenced article) given that stability and agility are not easy goals to reconcile.

The intellectual demands of EA are high but arguably stakeholder engagement is even more challenging. For EA to proactively influence strategy, communications skills are pivotal, requiring language targeted to the boardroom. The role of a business architect has become important in this context, as evidenced in an informal survey organized by Allen Brown, former CEO of The Open Group. We conclude that EA is most effective if it also participates in the formulation of and engages in the execution of strategy. That means working closely with or potentially acting as solution architects in major transformation programs.

The above challenges and responses were key elements of the EA survey.

EA survey approach

The EA survey covers EA outcomes and capabilities and targets CIOs, EA heads, and business leaders. It is an online survey with to-date 100+ respondents. The authors reported results at the McKinsey CIO Conference in Feb 2016. This enabled selected panel experts to comment on the results and the audience to give feedback. Here we share some survey highlights.
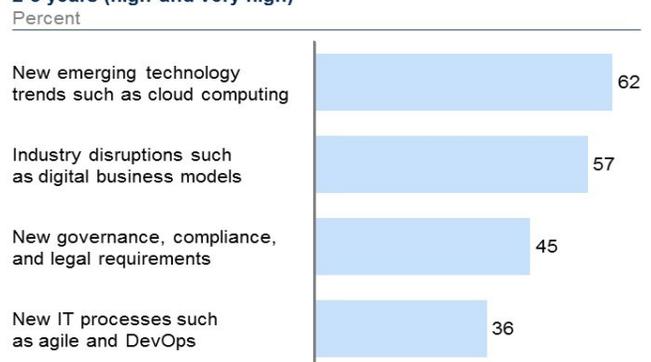
EA survey findings

We were able to build a solid fact base of the "typical" setup of a large EA department. Respondents were mainly from large companies with approx. 3,000 FTE IT staff. EA-dedicated resource (internal/external) is about 1 percent of Total IT FTE, supplemented by 2.5 percent outside of EA. Two out of three EA groups report to the CIO/CTO.

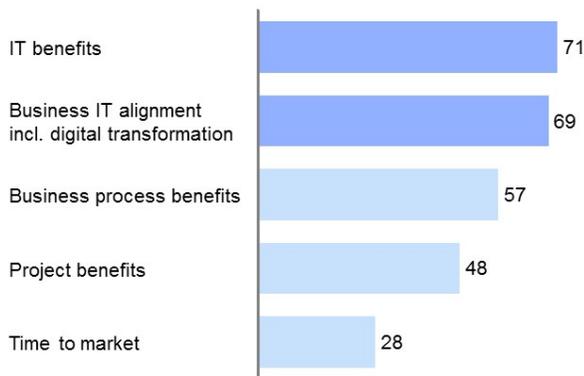1. *EA for the digital enterprise*

    We did not just look for a description of EA – we wanted to understand the value it delivers. New digital business models are expected to be one of the major disruptions following the opportunities that new emerging technologies offer.

Sources for level of disruption to the organization over the next 2-3 years (high and very high)
Percent

New emerging technology trends such as cloud computing	62
Industry disruptions such as digital business models	57
New governance, compliance, and legal requirements	45
New IT processes such as agile and DevOps	36

EA is key to digital transformation contributing significant benefit to business IT alignment.

Benefit EA contributes to (high and very high)
Percent

IT benefits	71
Business IT alignment incl. digital transformation	69
Business process benefits	57
Project benefits	48
Time to market	28

EA seems to play an effective role in digital transformation since in companies where EA contributes, we found that projects are more likely to be delivered on time and budget.

2. *Implementing digital in a two-speed architecture*

In a two-speed architecture, EA has to ensure agility as well as a stable foundation and smooth integration. Time to market is the key driver for agile use and is critical for success in digital.

How important is an agile approach in meeting outcomes?

We use agile development mainly for fast-moving applications	49.50%
We use agile development for most projects	27.23%
We do not use agile development	23.27%
Total	**100.00%**

The survey found that most companies are using agile but with different approaches. About half the companies are using agile mainly for fast moving applications. The remainder, fairly evenly split, are at opposite ends mostly using agile or not at all.

The interaction of EA with agile also varies between organizations. More than half of the companies have a different EA approach for agile development. More than two-thirds of initiatives use a tailored accelerated EA management process for agile while the others have separate EA guidelines for agile. Yet 43 percent of the companies do not change their EA approach at all for agile projects.

There is some support for the conflicting goals of agility and stability. Companies with digital business high on their agenda typically have more point-to-point connections, a lower quality of business process documentation, and less reuse of services.

3. *How to manage complexity in a fast-moving environment*

Complexity in the IT landscape has to be addressed, particularly if the goal is to be agile and innovative.

While digital transformation is a key objective of EA in most companies, complexity reduction is seen as at least as important as digitization.

Key objectives of EA (multiselect)
Percent

IT complexity reduction	67
Digital transformation	62
Cost saving	47
Time-to-market improvement	34
Stability	26
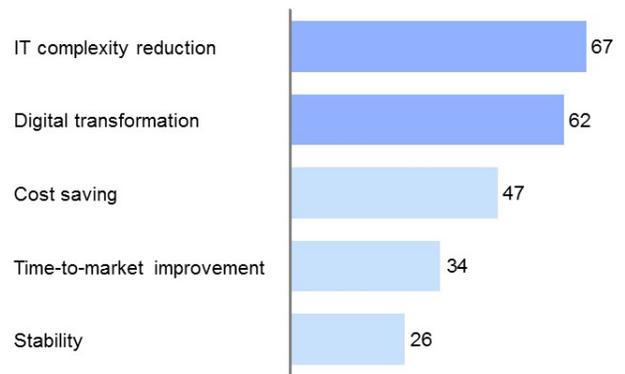
Yet there is a high spend on integration at 40 percent of total application development spend. Part of this is due to the high number of interfaces relative to the number of applications. This finding is further reinforced by comparing organizations with lower versus higher integration costs.

	Lower than average integration cost	vs.	Higher than average integration cost
Percent of point-to-point connections	17		62
Number of applications	245		694
Number of interfaces	522		2,242

4. *Enhancing communication and leadership of EA*

Perhaps the biggest challenge for enterprise architects (and unfortunately somewhat supportive of the Forbes finding) is that in more than 40 percent of companies, business colleagues were unaware of what EA does.

What is also a concern although perhaps not too surprising is that in these low EA awareness organizations, it appears that EA is both more reactive and more rigid in its approach.

Specifically, we found in regards to capability that

- □ EA does not help deliver business solutions, is not considered to be necessary for managing standards, and business architecture is less mature.

- There is often no capability or process model in place and no benefit capturing.
- EA lacks the right talent to cope with business and technology challenges.
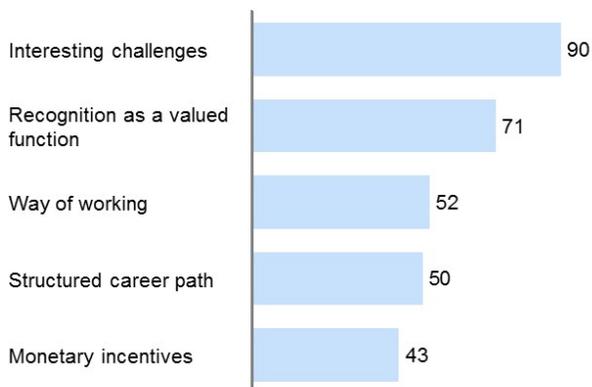- EA is less likely to model the future.

In relation to EA approaches, we found that

- EA is more focused on compliance than on strategic planning.
- EA is more likely to use architecture methods by the book.
- EA typically runs agile projects with the same governance as other projects.

These findings emphasize the importance of leadership in attracting and retaining top EA talent. Here it seems that Herzberg's hygiene and motivating factors come into play with enterprise architects more incentivized by interesting challenges than money.

Incentives for talent (responses high and very high)
Percent

Interesting challenges	90
Recognition as a valued function	71
Way of working	52
Structured career path	50
Monetary incentives	43

Conclusions and next steps

The McKinsey and Henley EA survey aims to provide insights into key drivers of a successful EA strategy for the digital age. We believe relatively little data exists regarding EA performance in this context. The EA survey should create a sound basis for tackling EA challenges and opportunities from new disruptive events. This can help EA leaders develop a perspective on what does and does not work well.

The initial results of the EA survey suggest that EA is a key enabler for digital transformation but that IT complexity and EA leadership are significant barriers to achieving this in most companies.

Digital business is both a key driver and major objective of EA in most companies. High complexity is evident – not helped by the number of application and interfaces despite the ongoing drive for "jigsaw" architectures implied by SOA and its many predecessors.

The focus on both agility and stability provides some support for a two-speed architecture although the concern that 40 percent of spend is on integration reinforces that this cannot be treated as an afterthought.

Last but certainly not least is the need for strong EA leadership both to engage with business colleagues and to attract top talent. This is vital in order for EA to be proactive in driving digital innovation.

Next Round of EA Survey

The authors wish to express their thanks to all the AEA members who participated in the EA Survey and provided such an excellent set of data for our analysis. The next round of the EA survey is now available. Please look out for communications from AEA on the launch of this survey.

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REFERENCES

Dörner K. and Edelman D. (2015): What "digital" really means, McKinsey Quarterly, July 2015

Agile Enterprise Architecture Finally Crosses the Chasm, http://www.forbes.com/sites/jasonbloomberg/2014/07/23/agile-enterprise-architecture-finally-crosses-the-chasm/

Is Enterprise Architecture Completely Broken? http://www.forbes.com/sites/jasonbloomberg/2014/07/11/is-enterprise-architecture-completely-broken/

Hertzberg, Frederick (2003) "One More Time: How Do you Motivate Employees" Harvard Business Review

Bossert O, Ip C and Laartz J (2014) A two-speed IT architecture for the digital enterprise http://www.mckinsey.com/business-functions/business-technology/our-insights/a-two-speed-it-architecture-for-the-digital-enterprise