Rethink application possibilities and align to desired business outcomes

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Executive summary

It’s a new world of applications. Connected digital technologies and the consumerization of IT are forcing enterprise applications to evolve from being enablers of business operations to becoming drivers of growth and innovation. This study sheds light on some of the new expectations on application development as well as the challenges IT decision makers face in addressing them. To succeed, it is more important than ever for IT leaders to partner with business and align application strategy to desired business outcomes.

Key Takeaways

User Experience is becoming a new competitive frontier and enterprises are often unprepared

The overwhelming majority of IT Decision Makers (ITDMs) agree users’ expectations of enterprise applications has fundamentally changed and the majority believe that an application’s user interface and user experience are now crucial to customer satisfaction and productivity. Yet few currently prioritize this during the application development process. Furthermore while this is an area where most organizations rely on external design agencies, organizations often struggle to find vendors with the required level of design expertise or those who combine design expertise with good backend integration skills.

New realities are driving a need for speed in application development

Business expectation has changed such that applications must be deployed and updated quickly. This reality combined with the pace of innovation in areas like cloud and mobile has meant that over 90% of ITDMs feel there is a need to accelerate the time it takes to bring new applications to the market and 70% say they are undertaking fewer top-down multi-year application development projects. Yet at the same time less than a third of ITDMs say their development processes are agile enough to develop and deploy as quickly as needed.

A cohesive digital strategy is essential to unlocking new value

The rise of connected digital technologies including cloud, mobile and social have left organizations with fragmented approaches to dealing with these forces which could lead to poorer outcomes and maintenance and integration challenges further down the road. It is important to have an integrated digital strategy aligned with business goals to effectively capitalize on these technologies and unlock new growth opportunities.

The right partners can help drive success

With 79% of ITDMs reporting that business units are developing their own applications and in 85% of these instances applications are built with the help of external developers, it is more important than ever for organizations take control of their digital strategies and align IT with the needs of business teams. Collaborating with a skilled and knowledgeable partner who understands enterprise needs can help drive success.
Scope of research and methodology

Research methodology
Avanade commissioned independent technology market research specialist Vanson Bourne to undertake the research upon which this report is based. Avanade was created by Accenture and Microsoft in 2000 to provide business technology solutions and managed services based on the Microsoft platform.

A total of 750 interviews with senior IT decision-makers were undertaken during August and September 2013 in private organizations with 1000 employees or more and global revenues of $250m or more.

Figure 1: "What is your company’s global revenue figure (US $)?"
Asked to all respondents (750 respondents)

Respondents to this research came from a range of industry sectors, which only excluded public sector. Interviews were conducted online using a rigorous multi-level screening process to ensure that only suitable candidates were given the opportunity to participate.

Aims of the research
This study explores some current trends in the state of application development and seeks to understand the impact of recent technology shifts on how IT is expected to develop applications for enterprise users and customers. This study also seeks to understand some of the concerns and struggles that enterprises currently have with application development.

The study starts by investigating the impact of consumerization on application development and any related consequences of these behaviors. Have expectations of business applications significantly changed? If so, in what ways? Is IT capable of delivering new experiences and what challenges do they face?

Next, in a rapidly changing and competitive technology landscape what is the impact on how IT develops applications? Is this also changing and in what ways?

Finally, as applications become more connected, do enterprises need help navigating this new world and what strategies do they have in place?

The study addresses these questions in five distinct sections with the first section establishing the impact of consumerization on application development. The second section then examines the expectations related to user experience. The third section looks at how development approaches are changing and the fourth section explores the impact of connected digital technologies. Finally, this paper looks at the desire to establish a relationship with a partner who can help enterprises create a robust application strategy.

Interviews were performed in nine countries:
• USA - 200 interviews
• China - 100 interviews
• United Kingdom - 100 interviews
• Germany - 100 interviews
• France - 70 interviews
• Brazil - 50 interviews
• Japan - 50 interviews
• Australia - 50 interviews
• Sweden - 30 interviews
Summary of key findings

Organizations today face new expectations and new challenges when it comes to their applications. IT Decision Makers (ITDMs) are reporting an increased expectation from their businesses around three dimensions; firstly on user experience and design; second on a move towards faster shorter development cycles; and third an increased pressure to drive transformational digital applications. At the same time ITDM’s are struggling to create effective strategies to take advantage of these new forces and are finding that the right skills to address these new requirements are in short supply.

Impact of Connected Digital Technologies

Connected with customers
- Digital marketing budgets are increasing in 85% of organizations
- Over 90% want to consolidate and increase efficiency in Digital Marketing yet only 43 % have an active program at present

Connected across devices
- Mobility is already an important part of 61% of organizations’ strategies and will be within two years in another 32%
- 91% of enterprises outsource some of their mobile application development
- Yet close to 40% say they don’t have a clear strategy on key elements of mobility

Connected across IT boundaries
- In 2 years over 90% of organizations will have applications deployed to the cloud
- Over 60% say the cloud is driving migration of legacy applications
- Interestingly, Six in ten say that the cloud vendor’s reputation will have the biggest impact on the applications performance

Impact of business unit IT
- Individual business units are developing their own applications in 79% of organizations
- In 85% of instances, these applications are built with the assistance of external developers

Importance of Microsoft
- 61% say that compatibility with Microsoft platform impacts successful use and adoption of applications
- As a result, 81% say that it is important that an external application development vendor/partner has a relationship with Microsoft

Engaging Experiences

Growing importance of UI
- Over 86% believe that good UI and Design are critical to customer satisfaction and productivity
- 63% believe it will become even more important in the next 12 months
- Yet only about 37 % say they are currently prioritizing it

Use of External Agencies
- On average, organizations outsource 46% of their user interface design work.
- but 59% say that the help/advice from those external vendors has been less than perfect

Combining back-end integration and UI
- 81% say that successful applications need to deliver good design with good back-end integration capabilities...
- but only 25% say that external vendors are able to deliver this

Faster time to Results
- 94% say that there is a need to accelerate the time it takes to bring new applications to market
- As a result, 71% are undertaking fewer top-down multi-year development projects
- Despite this, only 29% say that their application development processes are agile enough to meet their needs
The consumerization of IT

All but 7% of respondents to the research confirm that the consumerization of IT is having an impact on application development:

Figure 2: "Is the consumerization of IT having an impact on application development in your organization?" Asked to all respondents (750 respondents)

The majority are making an effort to deploy applications more quickly, to develop applications that run across multiple device types, focusing increasingly on user-centric design, and trying to develop smaller, targeting solutions.

Only 1% of those who say that the consumerization of IT is having an impact on application development are not making any of these changes at all.

These are not the only changes happening as a result of the consumerization of IT. The majority say that user attitudes are changing, too.

Figure 4: "Do you agree that the consumerization of IT has changed users’ expectations of their application experience and as a result users are now much more demanding?" Asked to all respondents (750 respondents)

It is not just that attitudes are changing - users are becoming more demanding as they bring their experience of using new devices and platforms into the enterprise.

As user demands are changing and enterprises are trying to deploy more applications across more devices more quickly than before, application development teams are being asked to create many different applications.

It is no small consequence: in almost two-thirds of enterprises surveyed, two-thirds say that the impact on application development is significant. This is resulting in a wide range of consequences:

Figure 3: "Which of these consequences are you experiencing as a direct result of the impact of the consumerization of IT in your organization?" Asked to respondents who say that the consumerization of IT is having an impact on application development in their organization (694 respondents)

The majority are making an effort to deploy applications more quickly, to develop applications that run across multiple device types, focusing increasingly on user-centric design, and trying to develop smaller, targeting solutions.

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Figure 4: "Do you agree that the consumerization of IT has changed users’ expectations of their application experience and as a result users are now much more demanding?" Asked to all respondents (750 respondents)

It is not just that attitudes are changing - users are becoming more demanding as they bring their experience of using new devices and platforms into the enterprise.

As user demands are changing and enterprises are trying to deploy more applications across more devices more quickly than before, application development teams are being asked to create many different applications.
Figure 5: "What types of projects is your business currently asking the application development team to undertake?" Asked to all respondents (750 respondents)

<table>
<thead>
<tr>
<th>Application Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications that enable the business to collaborate better</td>
<td>78%</td>
</tr>
<tr>
<td>Applications that get more value/intelligence from business data</td>
<td>71%</td>
</tr>
<tr>
<td>Mobile applications for front and/or back office use</td>
<td>65%</td>
</tr>
<tr>
<td>Digital marketing applications that enable the business to deliver a better multi-channel experience and help you better understand your customers/partners/audience</td>
<td>57%</td>
</tr>
</tbody>
</table>

The majority say that their teams are being asked to develop every type of application listed. They are required to build applications across platforms, to support different business units, for different purposes, and for different audiences.
Perceived importance

One of the consequences of the consumerization of IT is the need to create applications that allow the users to perform tasks quickly, easily, and engagingly. User-centric design - making applications that are tailored to give a pleasing user experience - becomes increasingly important as new platforms and devices allow users to interact with applications in new ways.

Respondents realize this. 68% say that they are putting an increased focus on user-centric design as a direct result of the impact of the consumerization of IT on their organizations. There are a number of benefits from this increased emphasis:

• 65% believe that an interface designed to offer the best user experience is key to the successful use and adoption of applications.
• 86% agree that good user interface design and user experience have a significant impact on customers’ satisfaction with an application. The better the design, the more likely that users will be happy to use it.

Figure 6: “Do you agree that good user interface (UI) design and user experience have a significant impact on customers’ satisfaction with an application?” Asked to all respondents (750 respondents)

All but 4% believe that a good user interface design and user experience is likely to improve productivity. 62% believe that productivity is significantly improved by using well designed applications.

Figure 7: “Do applications created with a good UI design and user experience help to improve productivity?” Asked to all respondents (750 respondents)
It is critical to application development

It is very important to application development

It is important to application development

It is unimportant to application development

37% 46% 15% 2%

Difficulty in deployment

Despite the fact that so many believe that good user-centric design is important, few are prioritizing it during the application development process.

Figure 8: “How important is the design of UI and user experience during application development in your organization at present?” Asked to all respondents (750 respondents)

Only around a third says that the design of the user interface and user experience is critical to development right now. It is an issue which development teams are looking to remedy, as 63% say that they anticipate the importance of the design of the user interface and experience during application development to become more important in twelve months’ time.

As application development teams are under so much pressure, it is likely that the design of the user interface and user experience is something which organizations want to focus on but sacrifice in order to deploy quickly. This is further confirmed by the fact that only 43% say that the user interface and experience is considered and included on every project.

Figure 9: "Is the design of UI and user experience something which is considered and included as part of your application development projects?" Asked to all respondents (750 respondents)

Although organizations appreciate that a good user-centric design encourages adoption, satisfaction, and productivity, few are actually addressing these issues on every application development project.
Outsourcing user-centric design

Most enterprises are outsourcing some of design of application user interfaces and experience in order to address this issue. At present only 10% of respondents say that all user interface and experience design is performed in-house; on average, 46% of the design is performed by external vendors.

Figure 10: “When designing applications in your organization, what percentage of the design of UI and user experience is performed by in-house teams?” Asked to all respondents (750 respondents)

However, the use of those external vendors is rarely satisfactory. Most say that when outsourcing design in the past, the vendor’s expertise was lacking, the vendor could have done more, or the vendor made no difference to the project at all.

Figure 11: “Has the help/advice your organization received from those external vendors or partners been truly beneficial to the design of the user experience of your applications?” Asked to those who outsource some of the UI/user experience design (678 respondents)

Why are enterprises using partners for user-centric design work if the experience is often poor? It is often due to a lack of vendors with high levels of expertise in this area; most enterprises are unable to find vendors with an appropriate level of knowledge around user interface and experience.

Figure 12: “Do you struggle to find external partners/vendors with an appropriate level of expertise for the design of UI and user experience?” Asked to all respondents (750 respondents)
As only 13% have no problem finding vendors with appropriate levels of user-centric design experience, it is clear that many enterprises are commissioning work from partners they know are not necessarily experts in this area. This partly explains why so many say that their experience with such partners has not been beneficial to the design of their applications.

One area of expertise that vendors lack is the ability to create a good user-centric design while also developing good back-end integration. Only 25% of respondents say that external design agencies are able to do this; for most, their experience with such agencies has been lacking.

Figure 13: "In your experience, are external design agencies able to deliver good design and an engaging user experience while also developing good back-end integration capabilities?" Asked to all respondents (750 respondents)

This is a problem, as 81% say that a good application experience has to tie together an engaging design with effective integration with back-end systems.

Figure 14: "Successful application experiences need to combine an engaging front-end experience with effective back-end integration" Asked to all respondents (750 respondents)
Achieving faster results

Users are becoming more accustomed to applications being quickly deployed and updated. As a result, organizations are most likely to be making an effort to deploy applications more quickly as a direct consequence of the consumerization of IT, over three-quarters of organizations surveyed are experiencing this.

Figure 15: “Which of these consequences are you experiencing as a direct result of the consumerization of IT in your organization?” Asked to respondents who say that the consumerization of IT is having an impact on application development in their organization (694 respondents)

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>An effort to deploy applications more quickly</td>
<td>78%</td>
</tr>
<tr>
<td>Development of applications that run across multiple device types</td>
<td>69%</td>
</tr>
<tr>
<td>An increased focus on user-centric design</td>
<td>68%</td>
</tr>
<tr>
<td>An effort to develop smaller, targeted solutions</td>
<td>57%</td>
</tr>
<tr>
<td>None of the above</td>
<td>1%</td>
</tr>
</tbody>
</table>

This desire for quick application turnaround is seen elsewhere in the research. All but 6% report that there is a need to accelerate the time it takes to bring new applications to market, and over a third say that this is the most important consideration during application development.

Figure 16: “Is there a need to accelerate the time it takes to bring new applications to market within your organization?” Asked to all respondents (750 respondents)

Trying to develop and deploy applications quicker than ever means a re-evaluation of how the organization has traditionally developed and deployed applications and deciding how those methods can be improved. It is evident that this is what organizations have started to do, as 71% of those surveyed report that their organization is starting fewer top-down multi-year application development projects, and 10% have stopped undertaking them entirely.

Figure 17: “Is your organization starting fewer top-down multi-year application development projects than it has done in the past?” Asked to all respondents (750 respondents)

<table>
<thead>
<tr>
<th>Action</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, we no longer undertake such projects at all</td>
<td>10%</td>
</tr>
<tr>
<td>Yes, we rarely start such projects</td>
<td>28%</td>
</tr>
<tr>
<td>Yes, we start fewer such projects than before</td>
<td>33%</td>
</tr>
<tr>
<td>No, we still undertake such projects</td>
<td>29%</td>
</tr>
</tbody>
</table>
Such big application development projects present organizations with multiple challenges in the current marketplace. Half or more of those surveyed think of such projects as being too costly and resource heavy, and over a third say that they tend to be too complex and they do not deliver promised results.

Figure 18: “Why is your organization starting fewer top-down large scale multi-year application projects than it has in the past?”

Asked to respondents in organizations that are starting fewer such projects (529 respondents)

- They are too costly: 53%
- They are too resource heavy: 50%
- We are more interested in smaller, iterative development projects: 46%
- They are too complex: 40%
- They often do not deliver the promised results: 39%
- The long time to market puts us at a competitive disadvantage: 39%
- The senior management team prefers projects with a quickly realised ROI: 32%
- It is simpler to manage teams working on smaller, more agile projects: 19%

What is important in the data is a desire for what these top-down multi-year projects are not: organizations want small iterative projects with a quickly realized ROI, that have a short time to market, and that have smaller, more manageable teams. The older form of running projects is extremely resource-hungry and risky; smaller projects allow a quick turnaround and less of a loss if the product does not find a market.

Moving to a frequent-release application development structure presents enterprises with a range of potential benefits.

The most popular reasons for deploying frequently tie in with wanting to take advantage of the changing way that people discover and use applications. Ensuring that applications are always compatible with new devices and operating systems updates and responding quickly to market needs suggests that organizations know that the technological landscape keeps changing and, in order to remain viable and competitive, they (and their applications) need to change with it. Top-down multi-year projects lack this reflexivity, which is why only 6% report that their application development teams are not aiming to deploy applications more frequently.

Figure 19: “Is your application development team aiming to deploy applications more frequently for any of the following reasons?”

Asked to all respondents (750 respondents)

- To take advantage of new opportunities when they arrive: 67%
- To ensure applications are always compatible with new operating system updates: 63%
- To respond to market needs more effectively: 60%
- To enable access to the application from new devices as they become available: 53%
- Our application development team are not aiming to deploy applications more frequently: 6%
But the research suggests that enterprises are far from satisfied with their current speed of deployment. On average, respondents say that it takes eight months for their internal application development team to develop and deploy a new application at present. This is far from the multi-year scope of previous work, but many say that it is not quick enough.

**Figure 20:** “Do you believe your application development processes are agile enough to enable you to develop and deploy applications as quickly as you would like?” Asked to all respondents (750 respondents)

Only 29% believe that their organization can develop and deploy applications as quickly as they would like. This means that 71% are struggling - the eight month average may seem like an improvement on what happened previously, but it is still simply not fast enough.
The impact of connected digital technologies on application development

As well as the consumerization of IT, application development teams are having to change in reaction to connected digital technologies. These place new expectations on how applications connect with customers, across deployment boundaries, and across different devices.

The research found four particular areas where these connected digital technologies are impacting application development at present:

**Empowered business units**

Individual business units such as the marketing department are designing and/or deploying their own external facing applications in the majority of organizations.

Figure 21: “Is the marketing department or any other business unit designing and/or deploying their own external facing applications (i.e. applications for customers or potential customers)?” Asked to all respondents (750 respondents)

- Yes – with the IT department’s involvement
- Yes – without the IT department’s involvement
- No
- I don’t know

It is only in 15% of respondents’ organizations that this is definitely not happening; for 79%, this is something which IT decision-makers are already seeing happening.

What is particularly notable is that for 10%, individual departments are designing and deploying applications without the involvement of the IT department at all. This means that the skills and expertise within the application development team are not being used in one in ten organizations.

Because these units do not necessarily have the skills to design and deploy these applications themselves, most are commissioning outside agencies to help them with this. In only 15% of respondents’ organizations are individual business units designing and deploying applications without external assistance, though in around half of organizations the business units are doing the majority of the work themselves.

Figure 22: “In general, are the marketing department and/or business units designing and deploying their own external facing applications themselves, or are they created with the assistance of an outside agency?” Asked to respondents in organizations where individual business units are commissioning their own applications (596 respondents)

- Created by the business unit alone
- Largely created by the business unit but with some help from an outside agency
- Created equally by the business unit and an outside agency
- Largely created by an outside agency but with some help from the business unit
- Created by an outside agency alone
- I don’t know

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Digital marketing

One of the results of the consumerization of IT is that customers, prospects, and employees are increasingly likely to use a digital device more often. As a result of this, organizations are rethinking how they advertise themselves and their products and are putting more emphasis on reaching their target markets through digital means.

Figure 23: “Is your organization increasing its spend on digital marketing?” Asked to all respondents (750 respondents)

The research confirms this. 85% of the IT decision-makers surveyed say that their organizations are increasing their spend on digital marketing, and almost two in five (38%) say that the increase in spend is significant. Only 9% say that their organization is definitely not increasing their spend on digital marketing.

As individual business units are likely to be building their own applications, this increased spend on digital marketing presents enterprises with a risk. If different units are building their own external-facing applications for marketing purposes, the way that each application is developed and deployed is likely to be very different. This fragments how the enterprise is perceived - a user of a poorly-developed application created as a digital marketing tool by one department will have a very different idea of the organization compared to a user of a well-developed application from another department. Similarly, it is likely that each application will look and behave very differently, meaning that there is a potential problem with branding and company voice.

This is a particular worry for organizations as most of those surveyed have ambitions to consolidate their external-facing digital properties and applications.

Figure 24: “Is your organization consolidating or trying to increase efficiency across your external-facing digital properties and applications?” Asked to all respondents (750 respondents)

Consolidation is a struggle for most. Fewer than half (43%) have an active consolidation strategy at present; most either have no formal strategy and are therefore doing this inconsistently, or else they merely have ambitions of wanting to do this. Departments are increasingly likely to develop their own applications and spend on digital marketing is increasing, and as a result the research shows that external digital properties are already fragmented (hence the desire to consolidate).
**Mobility**

Mobility is already important to most enterprises surveyed and is predicted to be important to the vast majority within the next two years.

**Figure 25:** “Is mobility an important part of your organization’s strategy?” Asked to all respondents (750 respondents)

- Yes: 61%
- Not at present but it will be within a year: 18%
- Not at present but it will be within two years: 13%
- Not at present but it will be at some point beyond two years: 5%
- No and it never will: 2%

It is not just the case that mobility is part of organization’s strategy; in nearly every instance, mobility is becoming an important part of overall strategies. Only 2% say that mobility is not important and never will be, showing that almost all enterprises see mobility as a core part of how they will operate over the next few years.

Despite the importance of mobility, few have mobile strategies that are clearly defined.

**Figure 26:** Those who say that each element is not clearly defined as part of their mobile strategy. Asked to those who have or plan to have a mobility strategy (734 respondents)

- How devices and applications are secured: 38%
- How devices and applications are managed: 37%
- How applications are maintained: 37%
- How applications are delivered: 37%
- How applications are developed: 36%
- What platforms are supported: 27%
- What devices are supported: 23%

Although the majority say that their mobility strategies are clear on each of the factors listed in figure 26, up to 38% of organizations say that each factor is not covered by their mobility strategy at present.

This may not be a problem if the IT department retained control of the development and deployment of applications. However, not only are individual business units developing their own applications, but organizations as a whole are likely to be outsourcing half of their application development to external vendors.
Figure 27: "What percentage of your application development for mobile platforms is performed by in-house developers?" Asked to all respondents (750 respondents)

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% - it is all done by an external partner/vendor</td>
<td>5%</td>
</tr>
<tr>
<td>1-10%</td>
<td>4%</td>
</tr>
<tr>
<td>10-25%</td>
<td>17%</td>
</tr>
<tr>
<td>25-50%</td>
<td>27%</td>
</tr>
<tr>
<td>50-75%</td>
<td>28%</td>
</tr>
<tr>
<td>75-99%</td>
<td>12%</td>
</tr>
<tr>
<td>100% - it is all done in-house</td>
<td>9%</td>
</tr>
</tbody>
</table>

Only 9% of respondents say that all of their application development work for mobile platforms is performed in-house; on average, 51% of the work is undertaken by a partner/vendor. How are these external agencies able to develop applications for enterprises if those enterprises are not clear on what their mobile needs are?

**Cloud**

Many organizations are already asking their application development teams to create applications designed to be deployed through the cloud.

Figure 28: "When will your application development team begin developing apps specifically designed to be deployed through private or public cloud?" Asked to all respondents (750 respondents)

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Already developing</td>
<td>53%</td>
</tr>
<tr>
<td>Within six months</td>
<td>40%</td>
</tr>
<tr>
<td>Within a year</td>
<td>22%</td>
</tr>
<tr>
<td>Within eighteen months</td>
<td>16%</td>
</tr>
<tr>
<td>Within two years</td>
<td>5%</td>
</tr>
<tr>
<td>Beyond two years</td>
<td>4%</td>
</tr>
<tr>
<td>Never</td>
<td>9%</td>
</tr>
</tbody>
</table>

Around half say that their application development teams are already developing applications to be deployed through private or public cloud; within two years, almost all organizations will be asking their application development teams to be doing this.

Part of the reason for this is because organizations want to deploy their legacy applications through the cloud. Most are already doing this, and only 8% never expect to start such modernization projects.
Figure 29: "Are you actively undertaking application modernization projects to migrate legacy applications to the cloud (public or private)?" Asked to all respondents (750 respondents)

However, when developing cloud solutions, respondents say that their organization is more concerned about the cloud vendor than the methodology used to build and design the application:

Figure 30: "When developing new cloud solutions, what has the greatest impact on the performance and stability of the application?" Asked to respondents in organizations that have started or plan to start developing applications to be deployed through cloud (733 respondents)

Six in ten say that either the cloud vendor’s reputation or the cloud infrastructure will have the biggest impact on the applications performance; only four in ten primarily worry about the build of the application or the software used to build it.
The continued importance of Microsoft

One of the impacts of connected digital technologies is the increasing use of diverse computing platforms. A decade ago it was all but assumed that a majority of users would operate a computer running a version of Microsoft Windows, but the growth in popularity of mobile devices and competing platforms means that this is not always the case.

Despite this, enterprises still regard Microsoft compatibility as important. 61% of those surveyed say that compatibility with Microsoft Windows architecture impacts the successful use and adoption of an application within organizations like theirs; although non-Microsoft platforms may be growing in popularity, this does not mean that Windows architecture is no longer important.

It is not necessarily the case that Windows is waning in importance, either. Nearly three-quarters of enterprises surveyed are either already developing applications for the latest iteration of the system - Windows 8 - or intend to within the next year.

Only 11% of those surveyed do not expect to start developing Windows 8 applications at all; the vast majority either already develop for Windows 8 or anticipate doing so.

As a result of the enduring importance of Windows to enterprise organizations, they expect the external application development vendors and partners they work with to have a relationship with Microsoft.

What the research also shows is that the vendor’s relationship with Microsoft should be significant, too:
Figure 33: “What sort of relationship would you expect an application development vendor/partner that works with your organization to have with Microsoft (Pick One)?” Asked to all respondents (750 respondents)

- The partner should have direct access to the latest Microsoft early adopter technology programs: 27%
- The provider should employ people who are Microsoft certified application developers as well as recognised experts: 26%
- The partner should be a Global Microsoft Gold partner: 21%
- The partner should demonstrate competency in Microsoft technology areas related to application development: 18%
- The partner shouldn’t need to have any relationship at all with Microsoft beyond technology licensing: 7%
- The partner should avoid using Microsoft entirely to deliver managed services: 1%

Most say that the vendor should be a Global Microsoft Gold Partner, have directed access to Microsoft early adopter technology programs, or employ people who are Microsoft certified application developers. Those vendors need to have expertise of a wide range of Microsoft products, too:

Figure 34: “In which of the following Microsoft technology areas do you expect your application development partner to be able to demonstrate competency and experience when incorporating them into the application you need?” Asked to all respondents (750 respondents)

- Designing and building native applications for Windows 8 tablets and PCs: 53%
- Designing, migrating and building applications on Microsoft Azure: 51%
- Building applications which incorporate effective Analytics using technologies: 51%
- .Net Custom Application Development: 47%
- Building applications for Windows Phone 8: 44%
- Enterprise Collaboration through Microsoft SharePoint: 43%
- Building internet websites using ASP.NET: 43%
- Building client side applications with Windows 8 style modern UIs: 42%
- Building intranet websites using ASP.NET: 38%
- Microsoft Dynamics CRM and ERP: 29%
- None of the above: 5%

Only 5% of those surveyed say that their external application development partners do not need to demonstrate expertise in any of these Microsoft technologies, the rest require their partners to show their proficiency in Microsoft products.
Conclusion

Address new expectations and challenges by rethinking applications to align to business outcomes

This study reveals that today's enterprises not only face new expectations when it comes to their applications, but that these new expectations also bring new challenges for which enterprises are often unprepared. The new expectations on applications is driven by the consumerization of IT as well as the impact of connected digital technologies (social, mobile and cloud). IT Decision Makers (ITDMs) are reporting an increased expectation from their businesses around three dimensions; firstly on user experience and design; second on a move towards faster shorter development cycles; and third an increased pressure to drive transformational digital applications. At the same time ITDM's are struggling to create effective strategies to take advantage of these new forces and are finding that the right skills to address these new requirements are in short supply.

User Experience is a new competitive frontier

The overwhelming majority of IT Decision Makers (ITDMs) agree users’ expectations of enterprise applications has fundamentally changed and the majority believe that an application’s user interface and user experience are now crucial to success. However, few prioritize this during the development process and some ignore it altogether. Furthermore while this is an area where most organizations rely on external design agencies, organizations often struggle to find vendors with the required level of design expertise or those who combine design expertise with good backend integration skills. All of this indicates that the user experience is a new competitive frontier and enterprises need to make it an integral part of application development by investing in developing the right skills or finding partners who can bring a combination of design and integration expertise.

New realities are driving a need for speed

Business expectation has changed such that applications must now be deployed and updated quickly. This reality combined with the pace of innovation in areas like cloud and mobile has meant that over 90% of ITDMs feel there is a need to accelerate the time it takes to bring new applications to the market and 70% say they are undertaking fewer top-down multi-year application development projects. Yet at the same time less than a third of ITDMs say their development processes are agile enough to develop and deploy as quickly as needed. This indicates that to respond to competitive pressures and business expectations ITDMs responsible for application development will need to continue to look at ways beyond traditional enterprise development methodologies if they are to develop, deploy and update applications faster.

Unlock value with a Digital Strategy

As if the above two dynamics weren’t enough, ITDMs today are under increasing pressure to drive transformational digital applications in today’s technology landscape which is characterized by applications which are far more connected -- across people, devices and systems. In terms of applications connecting with people, over 85% of ITDMs report that their organization’s Digital Marketing budget is increasing. Yet, at the same over 90% are facing the challenge of consolidating and increasing the efficiency of their efforts across the multitude of available digital marketing channels. In terms of applications connected across systems over 90% of organizations will have apps deployed to the cloud in 2 years. Interestingly the majority (six out of 10) organizations cite the reputation of the cloud vendor as more important to the performance of the application over other things such as how the application is built. In terms of connecting across devices, nearly all say that mobility is or will be an important part of their organizations overall strategy within the next two years. The research however shows that there are significant groups of organizations (close to 40% in some cases) who are not clear on a strategy which covers core areas of mobility such as what platforms and devices are supported, let alone other areas such as security and manageability. The findings here suggest that the impact of connected digital technologies is very real but organizations may be hampered by the lack of a cohesive strategy and a fragmented approach when dealing with these issues.

The net of all this is an increasing expectation of applications to be a driver of business value and growth. The issue is that ITDMs are struggling to do this. With 79% of ITDMs reporting that business units are developing their own applications and in 85% of these instances applications are built with the help of external developers, it is more important than ever for organizations take control of their digital strategies and align IT with the needs of business teams. Collaborating with a skilled and knowledgeable partner who understands enterprise needs will also help. This approach will benefit not only the IT organization but the business as a whole.
Recommendations

Business leaders focus on business outcomes such as increasing customer satisfaction and loyalty, responding faster to market needs, and unlocking new value. However, the consumerization of IT and the impact of connected digital technologies have driven home the fact that applications are crucial in achieving these business outcomes. Now more than ever there is an expectation that applications go beyond supporting organizations from an operational perspective to becoming drivers of growth and to address this it is important for IT to team more with business leaders and invest in the skills and a strategy to align more closely with business outcomes.

• **Embed user experience design early into the development process:** With quality user experiences and design becoming critical to driving customer satisfaction and loyalty, organizations should invest in this area and look to integrating design as an early and integral part of the Application Development process and partner closely with business leaders to meet business goals.

• **Consider agile approaches and best of breed technology when appropriate:** While there is pressure to increase time to results, agile approaches will sometimes be inconsistent with current enterprise approaches. Newer customer and user facing applications would be a good place to start with agile approaches as is building on a proven technology stack and using partners who bring deep expertise, experience and IP.

• **Invest in developing a cohesive Digital Strategy:** The rise of connected digital technologies including cloud, mobile and social have left organizations with fragmented approaches to dealing with these forces which in turn lead to poorer outcomes and maintenance and integration challenges further down the road. It is important to have an integrated digital strategy aligned with business goals to effectively capitalize on these technologies to transform organizations.

• **Look for the right partner:** With the rise of business unit led development projects and increasing use of external vendors it is more important than ever to choose the right partner. Choose a partner who not only has deep technical expertise but one that also has the business and industry understanding, tools and methodologies to ensure long term success.
About Avanade

Avanade provides business technology solutions and managed services that connect insight, innovation and expertise in Microsoft® technologies to help customers realize results. Our people have helped thousands of organizations in all industries improve business agility, employee productivity and customer loyalty. Avanade combines the collective business, technical and industry expertise of its worldwide network of experts with the rigor of an industrialized delivery model to provide high quality solutions using proven and emerging technologies with flexible deployment models—on premise, cloud-based or outsourced. Avanade, which is majority owned by Accenture, was founded in 2000 by Accenture and Microsoft Corporation and has 20,000 professionals in more than 20 countries. Additional information can be found at www.avanade.com.

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