



Why Smart Organizations Maximize Application Performance

A study exploring the roles that applications play in organizations' productivity and customer experience





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Scope of research/methodology

Research methodology

Vanson Bourne was commissioned as an independent market research specialist to undertake the research upon which this report is based. 220 interviews were carried out during December 2015 with senior decision makers in the IT department (referred to as ITDMs), and 220 interviews with senior decision makers in other departments (referred to as LOBs) were also carried out at this time. All respondents needed to work in organizations of at least 500 employees in order to qualify. The combined total of 440 interviews were split as follows:



Figure D1: "How many employees work in your organization?" Asked to all (440 respondents)

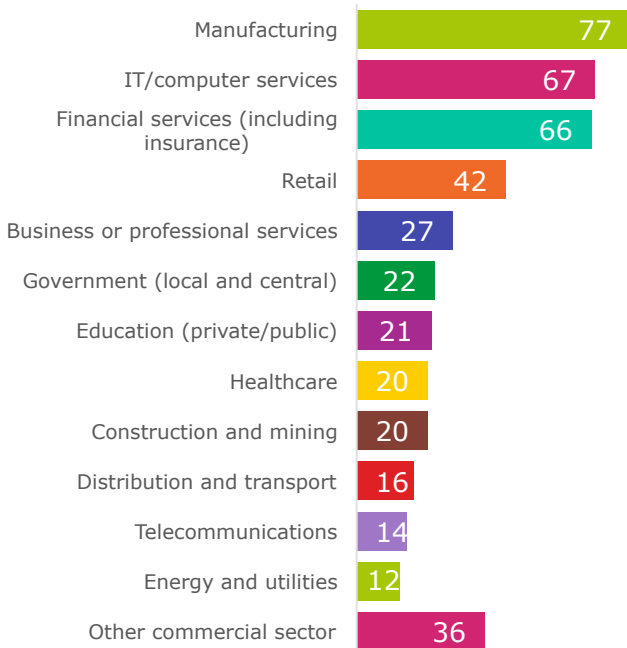


Figure D2: "In which sector would your organization be categorized?" Asked to all (440 respondents)

Interviews were carried out in six countries (with interviews split equally between ITDMs and LOBs within each country):

- US and China – 100 interviews each
- UK, Germany, France and Russia – 60 interviews each

Interviews were conducted online using a rigorous multi-level screening process to ensure that only suitable candidates were given the opportunity to participate. Unless otherwise indicated, results discussed are based on the total sample.

Aims of the research

Organizations and other official bodies are using more and more applications as central functions in their operations, both internally and to connect with customers. Increasingly, these applications are being placed on the cloud. However, we are concerned that applications are not being used to their full potential within organizations. This can have an impact upon the customer experience, as well as sales where e-commerce applications are concerned.

We want to understand the challenges that are being faced in application use, particularly when it comes to the IT department and the end users of the applications. To look into this in more detail, this study asks:

- How important are the applications?
- What strategies are being used to guide application needs?
- What challenges are being faced?
- Is anything being done to address these challenges, and if so is it working?
- What is the impact of applications not being used to their full potential? The following areas are examined:
 - Performance, efficiency and revenue
 - Customer experience
 - Approach of departments other than IT

By examining and understanding the challenges more clearly, we hope to offer better guidance and service on addressing them.

Summary of key findings

Respondents expect significant benefits if application performance is made as good as possible:

- 11% revenue increase (on average)
- 13% productivity increase (on average)

Poor application performance can have a big impact upon an organization's competitiveness

- 74% of respondents agree that poor application performance can prevent an organization from being a market leader

Only a minority of respondents are completely confident about their applications' performance

- Only 29% of respondents are completely confident that their organization's applications can meet performance service level agreements (SLAs) during peak usage periods

Deploying applications on the cloud does not automatically lead to benefits

- 61% report that their organization is using cloud-based applications
- But respondents are equally as likely to report that their organization encounters challenges using cloud-based applications as they are non-cloud-based applications (89% report that their organization experiences challenges in both cases)

Organizations are using hundreds of applications

- ITDMs report that their organizations are using, on average, 329 applications (including 196 mobile applications)
- 63% of all respondents expect this number to increase over the next five years

Mobile applications are particularly important

- 59% report that mobile applications are critical to their organization today
- 54% say that mobile applications are set to become more critical over the next few years

Departments are bypassing IT in order to deploy their own applications

- Almost two thirds (63%) of LOB respondents report that their department has either deployed, or considered initiating, application projects without the knowledge of the IT department



Application challenges

Impact upon customers

It is the end-users and customers that experience the negative effect of poor application performance, regardless of the exact issues being experienced with the applications or the deployment method used for the applications.

Regardless of whether applications are deployed via the cloud or onsite, the result is low satisfaction (36% for cloud-based applications and 44% for non-cloud-based applications) and delays (40% for cloud-based applications and 36% for non-cloud-based applications).

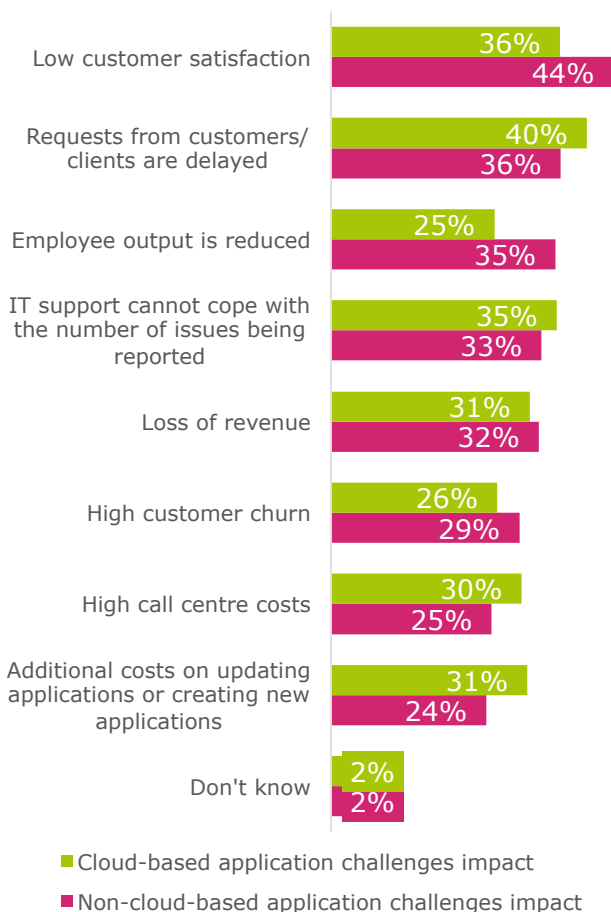


Figure 1: "What is the impact of these challenges?" Asked to all whose organization has experienced challenges with their applications accessed onsite/via cloud/SaaS (232 & 236 respondents)

Most importantly from organizations' long-term perspectives, is the fact that these issues are also

likely to result in fewer repeat orders (26% for cloud-based applications and 29% for non-cloud-based applications).

Respondents are all too aware of the ultimate impact of low customer satisfaction: 74% agree that poor application performance prevents organizations from being the market leader.

This shows the importance of keeping application performance high at all times if organizations are to deliver to a consistently high standard upon customer expectations. It also shows that moving applications to the cloud does not necessarily solve fundamental issues relating to peak usage periods, even if general application access and performance does improve as expected.

Benefits of improving application performance

According to respondents, solving these issues and attaining an ideal level of performance for their organization's applications will result in many benefits. If applications are made as good as they could possibly be, respondents report that productivity would increase by almost 13% and that revenue would increase by almost 11% as a direct result.

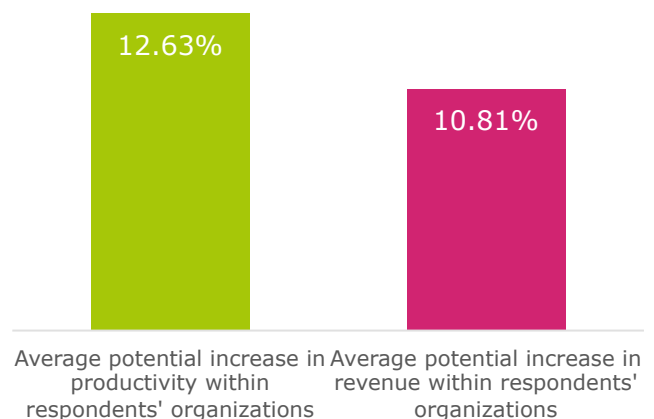


Figure 2: "By how much do you think your organization's productivity/revenue could be increased if your applications were made as good as they could possibly be?" Asked to all (440 respondents)

This quantifies the gains that could be made directly by organizations if application performance is made as good as it should be.

Even just by doubling the speed of their core applications, respondents report that there would be several benefits to their organization as a result. More than half report that their organization would achieve significant time savings (56%) and would see an increase in the number of transactions being made (55%), again showing that improving application performance can have an immediate impact upon efficiency and sales, bringing tangible benefits to organizations.

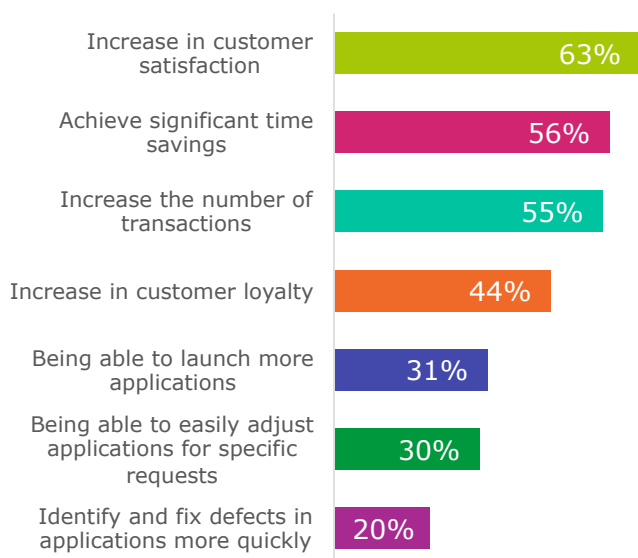


Figure 3: "Hypothetically, if you were able to double the speed of your organization's applications and deployment, what would be the key benefits you would anticipate experiencing?" Asked to all (440 respondents)

Perhaps most importantly, the majority (63%) of respondents report that if application speed could be doubled, customer satisfaction would improve. This would therefore minimize the impact of application issues that are experienced (shown in fig. 1). In addition, more than four out of ten (44%) report that customer loyalty would increase if application speeds doubled. This demonstrates that organizations can also experience intangible benefits. By improving their applications, it can help organizations improve the status of their brand and assist in sales in the longer term.

This demonstrates that, as a result of inadequate support for applications, organizations are likely to be missing out on a number of potential benefits.

Poor application performance is hurting organizations

Poor application performance is leading to serious issues, particularly at peak usage times, in a large number of organizations. Unfortunately for the organizations in question, the immediate impact of these issues is most likely to be felt by their customers. This in turn has a direct impact upon organizations' ability to maximize their sales and remain competitive.

Organizations are missing the opportunity to increase their revenue and productivity by a significant proportion. Although most respondents (ITDM and LOB) recognize the benefits of cloud deployment, placing an application on the cloud does not automatically mean that the application performs better for the customer. There are fundamental issues that need to be addressed before organizations can take full advantage of their applications and minimize the problems that are being experienced.

Concern about peak period performance

Only 29% of respondents report that they are completely confident about their organization meeting their performance SLAs during peak usage periods.

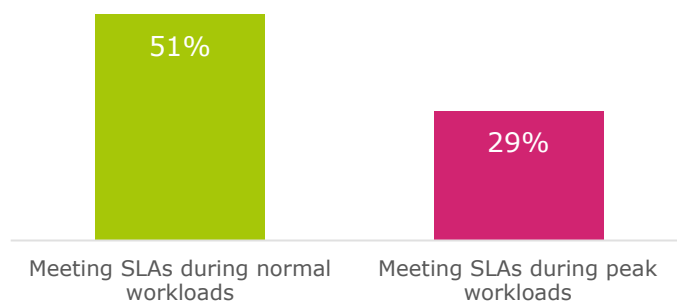


Figure 4: Percentage who are completely confident in their organization's applications meeting SLAs in terms of access and performance, Asked to all (440 respondents)

This shows that the majority are not confident about their applications' performance, particularly during peak periods. In addition, there is a noticeable drop in complete confidence when comparing meeting non-peak SLAs (51%) and meeting peak SLAs (29%). This means that a significant number are not under pressure during normal workloads, but report that their applications may not be able to cope with traffic during the times that are the most critical to sales. In fact, where departments other than IT are rolling out their own applications, 28% of respondents report that this is due to applications crashing or performing badly during peak usage periods.

An issue that is reported by 50% of ITDM respondents is that peak usage times are difficult to predict. In organizations where this is a problem, it makes it difficult for the IT department to address the issue of poor performance in a targeted manner, potentially leading to wasted effort for no appreciable gain.

The extent to which poor application performance during peak periods is a concern is illustrated by the fact that 60% agree that they are more concerned about applications failing at peak usage times than they are about security. This shows how critical application performance is to decision makers, even to the point where security is a lesser concern, despite the many well-publicized security problems experienced by large organizations in recent years.

Poor application performance during peak periods is likely to have a significant impact upon organizations. Three quarters (76%) agree that their organization's ability to maintain or grow market share is directly related to application performance during key periods of significant peaks in demand. This relatively low level of confidence from the majority demonstrates that these organizations should be doing more to maintain application performance if they are to remain competitive. A similar number (77%) also agree that poor application performance prevents organizations from maximising their sales during peak periods, showing that this has a direct impact upon organizations' bottom lines. This is of particular concern for ecommerce operations, which are naturally likely to depend upon sales applications.

Respondents have low levels of confidence in their organization's application performance in two key areas: reliability and speed.

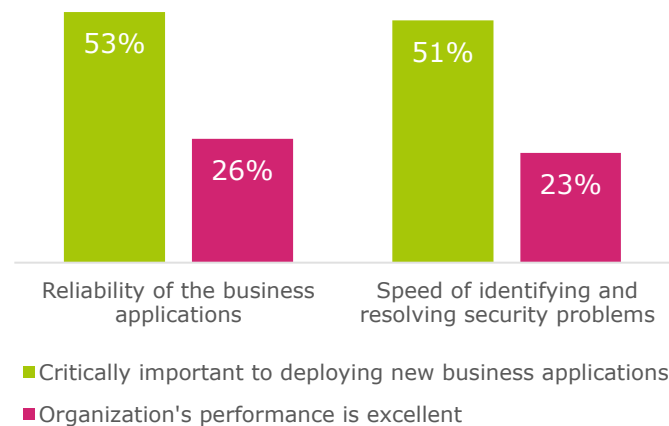


Figure 5: "How important are the following factors when it comes to updating or deploying new applications?/How would you rate your organization's performance when it comes to the following factors of application deployment?" Asked to all (440 respondents), showing top two most important

Reliability and speed are both regarded as critical by over half, but only regarded as performing excellently in their organization by a quarter in both cases. This shows that many organizations are not providing the support needed to maintain critical elements of their applications to the required standard, which explains why many are experiencing performance issues.

What other issues are affecting applications?

89% of respondents report that their organization has experienced challenges from using cloud-based applications, and the same number report that their organization has experienced challenges from using non-cloud-based applications. Regardless of deployment method therefore, almost all organizations are experiencing issues with their core application use.

But how applications are deployed does have an impact upon the types of challenges that are experienced. Respondents whose organization uses onsite applications are most likely to report that they suffer from slow speed issues (45%).

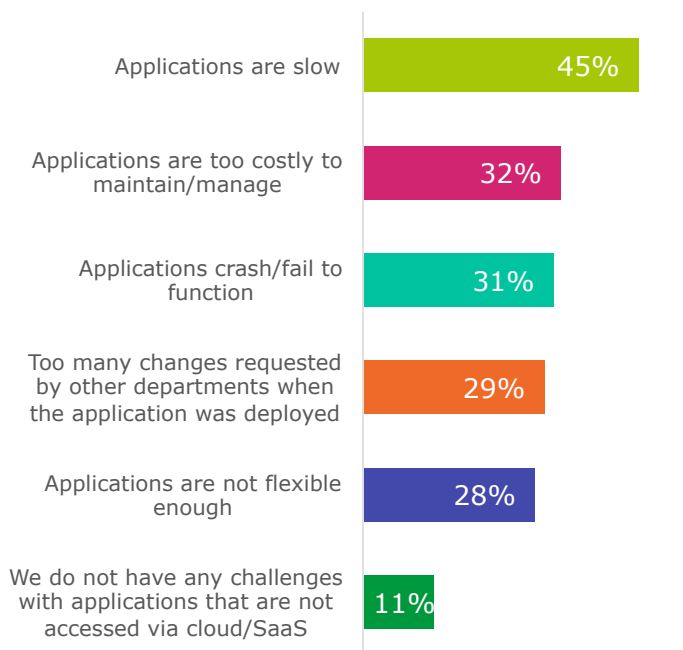


Figure 6: “What are the biggest challenges your organization has regarding its applications that are not accessed via cloud/SaaS?” Asked to all who report that at least 10% of their organization’s applications are deployed and owned onsite (262 respondents), showing top five only

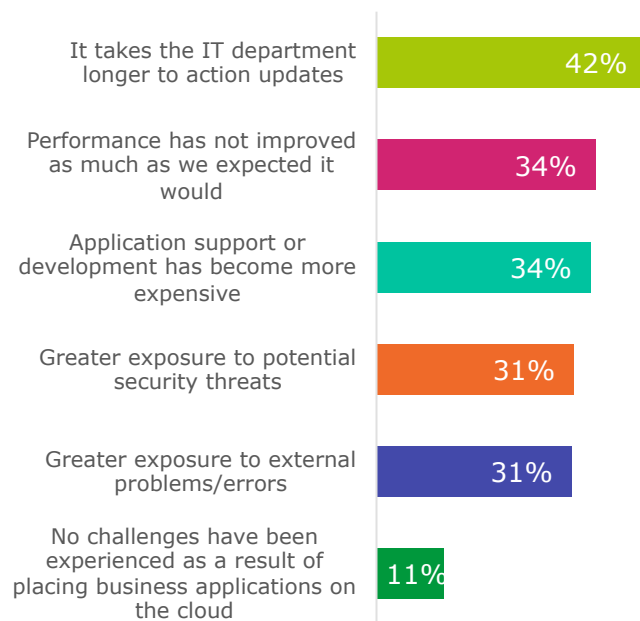


Figure 7: “Which of the following challenges has your organization experienced through using cloud-based/SaaS applications in the cloud?” Asked to all who report that at least 10% of their organization’s applications are accessed via cloud/SaaS (264 respondents), showing top five only

This explains why so many organizations have already moved applications to the cloud, or are planning to, as 74% agree that using cloud-based solutions provides better access and performance than having the application deployed on their own servers. Moving applications to the cloud should therefore solve the issue of speed.

However, cloud-based applications have their own problems. Respondents in organizations that are using cloud-based applications are most likely to report that the IT department takes a long time to action updates (42%).

This shows that some organizations may have underestimated the work required to migrate their application infrastructure to a cloud-based service, and also underestimated the work required to support it once the move is complete. This is supported by the fact that 34% also report that performance has not improved as much as expected – demonstrating that many may not be taking full advantage of what cloud-based applications have to offer.



Role, country and sector comparisons

LOBs and ITDMs are broadly in agreement regarding issues experienced through cloud and non-cloud-based applications. They are also generally in agreement on the impact of these issues, and the performance of the organization when it comes to critical deployment factors – the latter illustrated in fig. 8.

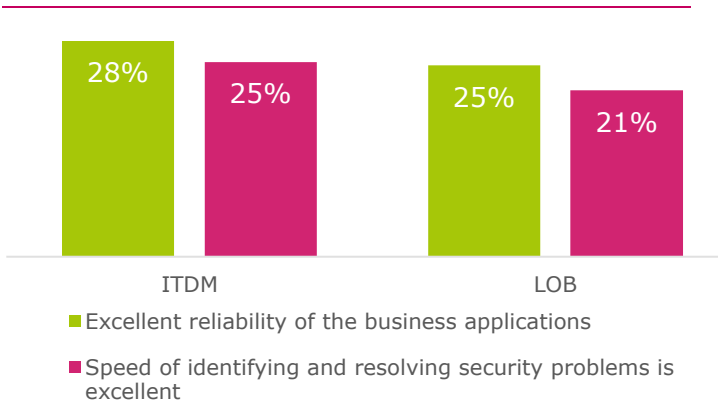


Figure 8: “How would you rate your organization’s performance when it comes to the following factors of application deployment?” Asked to all (440 respondents), showing top two most important, split by role

The consistency of answers reported by ITDMs and LOBs shows that there is likely to be at least a reasonable level of communication between IT and other departments, and also that the issues are acknowledged through different areas of the organizations. This means that if a solution is offered to solve the application issues, or at least minimize their impact, decision makers from across the organization are likely to be in broad agreement as to whether the solution will help their organization. This is important, because it is critical to get IT and other departments cooperating with each other if applications are to be fit for purpose and work efficiently inside the organization’s infrastructure.

There is however some disagreement when it comes to respondents in organizations from different countries. Whereas respondents from US, China and UK are almost certain to report experiencing at least one challenge from cloud-based/non-cloud-based applications, a quarter of

those from France, Germany and Russia report that no challenges are experienced.

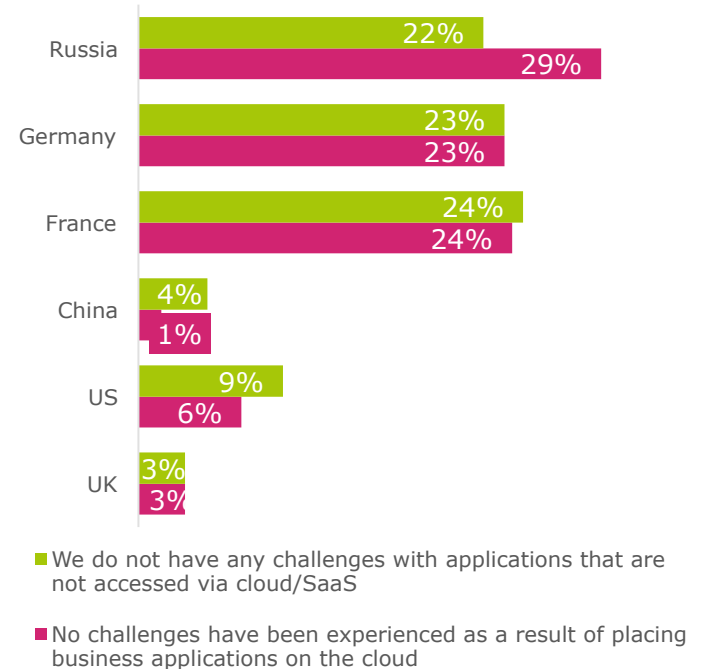


Figure 9: “What challenges has your organization experienced through using/not using cloud-based/SaaS applications in the cloud?” Asked to all (440 respondents), split by country

This shows that respondents in organizations in these three countries are less likely to be sensitive to application issues. The reason for this can be traced to the fact that China and the US are far more confident of meeting non-peak performance SLAs, but almost equally as likely to be confident of meeting performance peak-SLAs.





Figure 10: “How confident are you that your organization's applications can meet their SLAs in terms of access and performance?” Asked to all (440 respondents), split by country

When it comes to Russian, German and French organization respondents, their confidence in meeting performance SLAs is not significantly worse at peak times than it is at non-peak times. However the confidence shown by Chinese and US organization respondents drops hugely (from 67% to 25%, and from 66% to 33% respectively). This shows that these respondents are more likely to notice issues, as they are more likely to notice the significant drop in performance that results.

In addition to these notable variations by country, there is one sector in particular that stands out when it comes to respondents' confidence in their organization's ability to meet application performance SLAs. When it comes to demonstrating peak vs. non-peak performance, respondents from the retail sector are most likely to report the most consistent complete confidence in their organization. 50% are completely confident regarding their organization's application performance during non-peak times (matching the overall average of 51%), and this only drops to 48% for peak time performance.

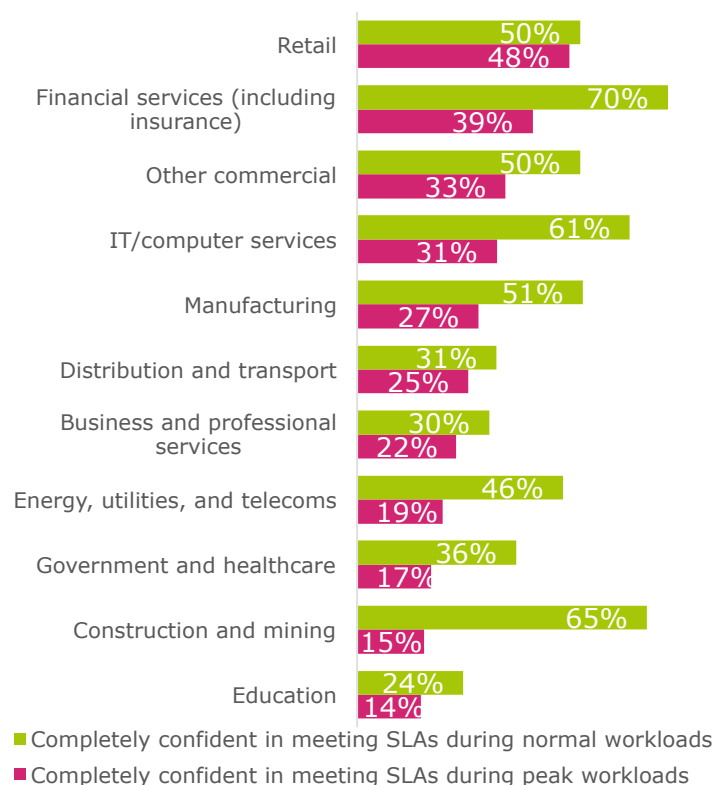


Figure 11: Respondents who are completely confident that their organization will meet SLAs during normal/peak workloads, Asked to all (1140 respondents), split by sector

This demonstrates that retail organizations are likely to have consistent application performance (whether it be good or otherwise), whereas organizations from other sectors are less likely (in some cases a lot less likely) to be completely confident about their peak performance than non-peak performance.

For some sectors, the drop in confidence can be extremely large, such as with the financial services sector (from 70% that are completely confident regarding non-peak time performance, down to 39% that are completely confident about performance at peak times) and the IT service sector (from 61% to 31%). This reflects the extent to which usage peaks can be unpredictable in some sectors, whereas larger organizations in the retail sector are likely to have historical data on such peaks, and understand best how to predict them as a result. This is particularly important when it comes to ecommerce applications, which retail organizations are naturally most likely to have focused on.

Core application use now and in the future

Application use is increasingly mobile

The role of applications in modern organizations is critical – not surprising when considering that, on average, respondents’ organizations are using over 300 applications. The majority (63%) agree that the number of applications being used will grow over the next five years.

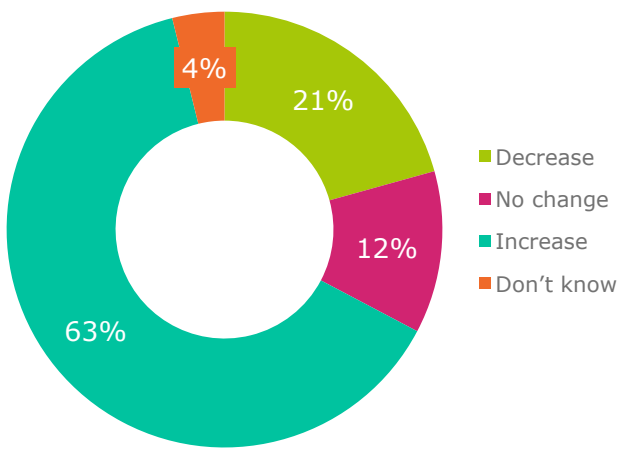


Figure 12: “By how much do you think the number of applications being used by your organization will change over the next five years?” Asked to all (440 respondents)

In addition to this is the finding that around two-thirds of these applications, on average, are mobile applications. The growing importance of mobile applications is further shown by the fact that 72% of respondents agree that almost all procurement of their organizations’ sales will be conducted online/via mobile devices within the next five years. 69% of respondents go even further and agree that in the future, all applications will need to be mobile. This means that ecommerce will soon be the standard in many organizations. This is despite the fact that, currently, only a third of transactions are on average made via mobile devices.

Respondents are also most likely to report that mobile applications are currently important to strategy, and that they will be even more critical in three years’ time.

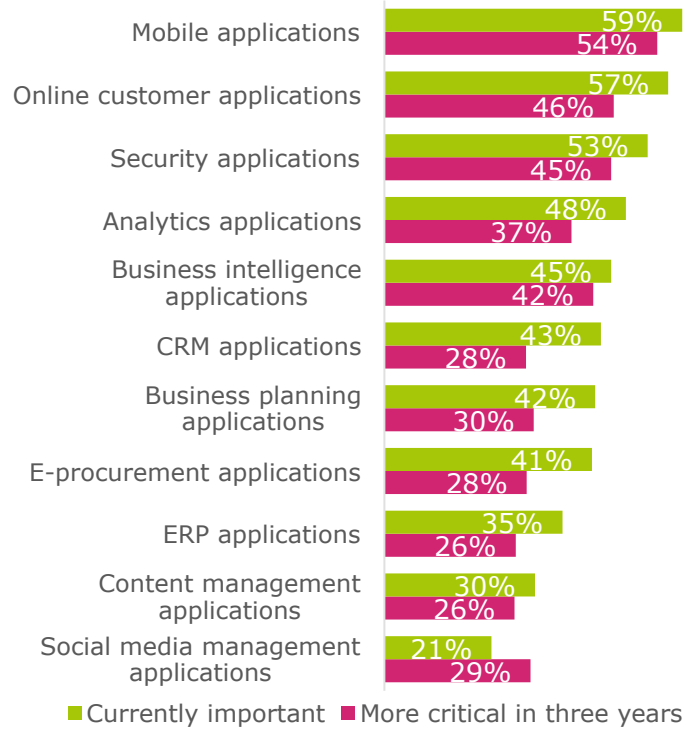


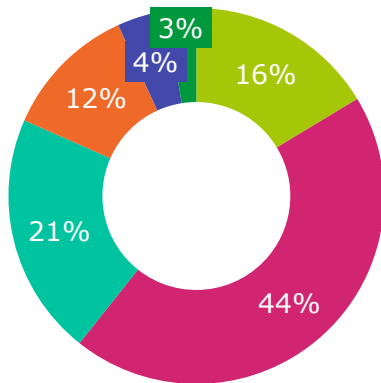
Figure 13: “What are the most important types of applications to achieving your strategy today/Which type of applications do you think will become more critical in the next three years?” Asked to all (440 respondents)

However, almost all application types are currently regarded as important by more than a quarter of respondents, and all are regarded as being more critical in three years by more than a quarter (see fig. 13). On average, respondents report between four and five applications as being important. This shows that organizations are likely to regard a variety of application types as being important to their strategy, both currently and as they develop and grow. Although this variety is likely to be different depending upon each organization’s aims and needs, it means that if an organization cannot maximize the performance of their applications, it can have a negative impact upon several areas of operation.

Applications will be vital to the survival of organizations in the near future, if they are not already, and this growing importance is driven largely by the increasing use of mobile applications. This growth may increase pressure upon the IT department.

Deployment and maintenance

According to respondents, new applications are regularly being deployed to replace old applications: 60% report new applications are always or usually deployed to replace old applications. This is as opposed to simply updating the old applications.



- New applications are always deployed to replace old applications
- New applications are usually deployed to replace old applications, but the rest are updated to extend their life
- New applications are deployed about half of the time to replace old applications, and half are updated to extend their life
- Most applications are updated to extend their life, but new applications are deployed from scratch for the rest
- All applications are continuously updated to extend their life and rarely replaced
- Don't know

Figure 14: "What best describes how your organization or external provider keeps the applications up-to-date when they approach their end-of-life?"
Asked to all (440 respondents)

Only 16% report that their organization always or usually only updates their applications to extend their working life. This shows that organizations are likely to be placing far more focus on building new applications from scratch rather than patching old applications to extend their use.

This, combined with the predicted increase in applications being used (illustrated in fig. 12), demonstrates that organizations are likely to be creating a large number of new applications, either for new requirements or as replacements to older applications.

Six in ten respondents (61%) also report that their organization currently deploys applications in

the cloud, and a further 31% are planning to do so.

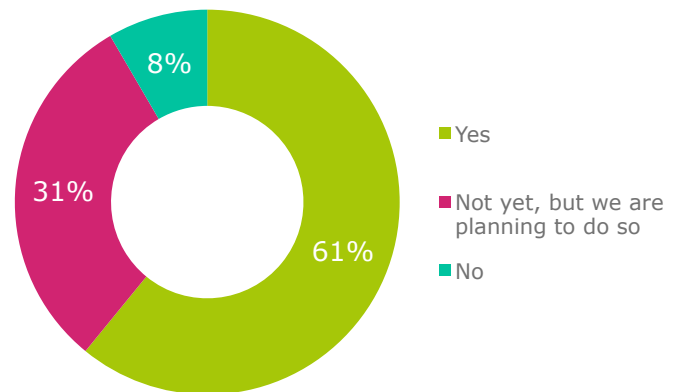
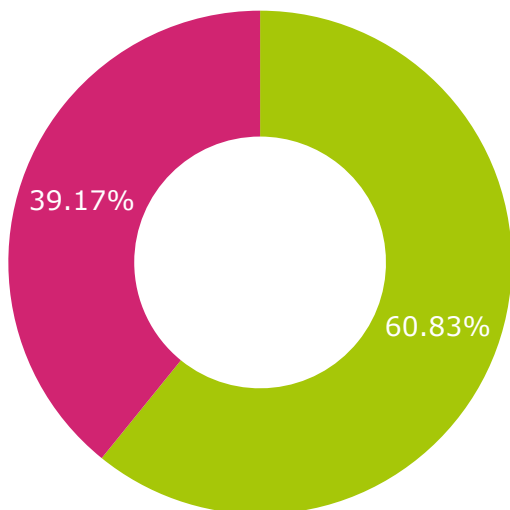


Figure 15: "Does your organization use cloud-based applications/SaaS?" Asked to all (440 respondents)

This shows that even though a significant proportion are yet to adopt cloud, almost all intend to do so. The driver of this adoption is mostly to improve access and performance, as 74% of respondents agree that using cloud-based solutions provides better access and performance than having the application deployed on their own servers. In addition, almost as many (67%) agree that using cloud-based solutions is as secure as having the application deployed on their own servers. This demonstrates that the majority have overcome the security fears that limited cloud adoption in its early years.

Looking in more detail at cloud adoption, of those respondents whose organization is using cloud-based applications, on average 39% of the applications that are deployed are cloud-based, with the remaining 61% deployed and owned onsite.





- Average proportion of respondents' organizations' business applications deployed and owned onsite
- Average proportion of respondents' organizations' business applications accessed via cloud/SaaS

Figure 16: Average proportion of respondents' organizations' applications deployed and owned onsite, asked to all whose organization uses cloud-based applications/SaaS (268 respondents)

This shows that the majority of applications are not yet SaaS-based in those organizations that are already using cloud for their applications. However, with more organizations planning to use cloud for their application deployment, the number of SaaS-based applications looks set to grow in the near future as organizations pursue better performance.

Applications are vital to operations

Core applications are critical to organizations' sales. Use of mobile applications is already significant, and is expected to increase mostly due to the important role that they are predicted to play for sales in the future. This is driving an increased development of mobile application development, which in turn is likely to be influencing the decision to create brand new applications to replace the old ones. Applications are also increasingly likely to be deployed via the cloud to aid performance – in the future it will not be enough to create an application that can run on a local server.

But more advanced applications that can run on a number of devices and a variety of conditions will require support from the IT department if mistakes are to be avoided, regardless of whether the application is created from scratch by the organization, or if it is purchased off-the-shelf. This is likely to place further pressure on IT departments, as they try to keep pace with the increasing demand for more applications, whether they are mobile and/or cloud-based.

Role and country comparison

Responses from ITDMs and LOBs regarding their organizations' development and deployment of applications vary in several areas. ITDMs, in theory, should have a better level of knowledge of the technical details and of the overall infrastructure of their organization, so where there is a difference in response it is likely to demonstrate a lack of knowledge in this area, to an extent, of the LOBs.

ITDMs report a much higher average number of applications in use, although a much lower average number when it comes to the number of applications in use.

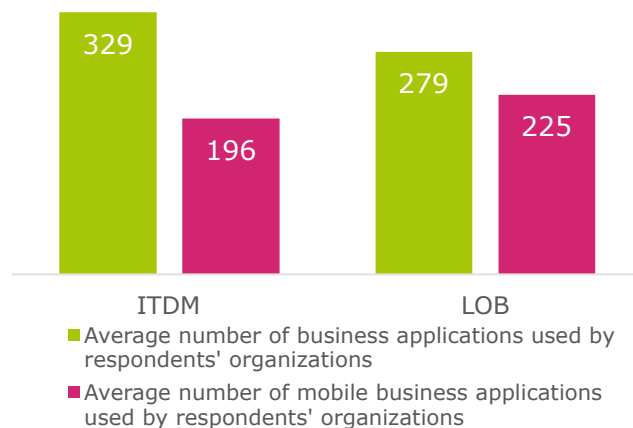


Figure 17: "How many applications/mobile applications does your organization currently use?" Asked to all (440 respondents), showing average, split by role type

This demonstrates that while LOBs may be underestimating the number of applications in use in their organization, they may also be slightly overestimating the number of mobile applications. This shows how important mobile applications are

to departments outside of IT – and how important they are to the front-line operations of the organization.

LOB’ relatively low level of detailed knowledge is important to note when considering the direct influence that they can have upon applications, a theme that will be explored in the next section.

Respondents from Germany and the US are more likely to report that their organization uses a high number of applications (368 and 367 respectively).

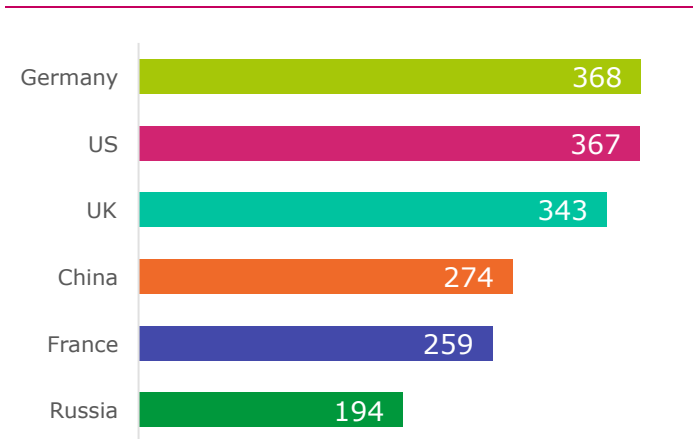


Figure 18: “How many applications does your organization currently use?” Asked to all (440 respondents), showing average, split by country

Respondents from the US are most likely to report that their organization has already deployed applications through the cloud – with 78% already doing so.

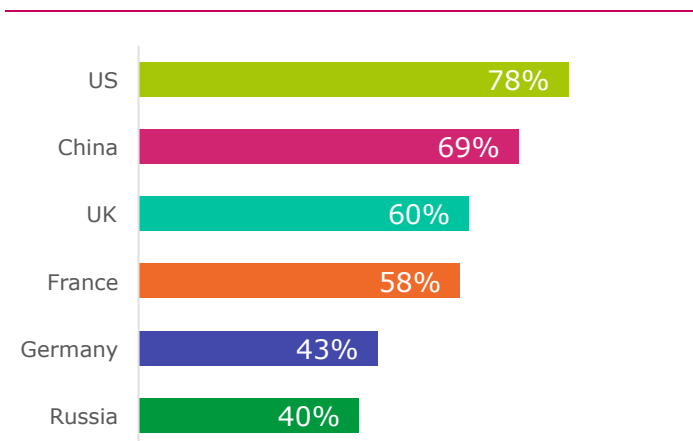


Figure 19: Organizations that currently use cloud-based applications/SaaS, Asked to all (440 respondents), split by country

Respondents from the US are also likely to report that a large number of the business’ transactions are made via mobile devices – 38%, which is bettered only by respondents from China who report an average of 46% of business transactions being carried out on mobile devices in their organization.

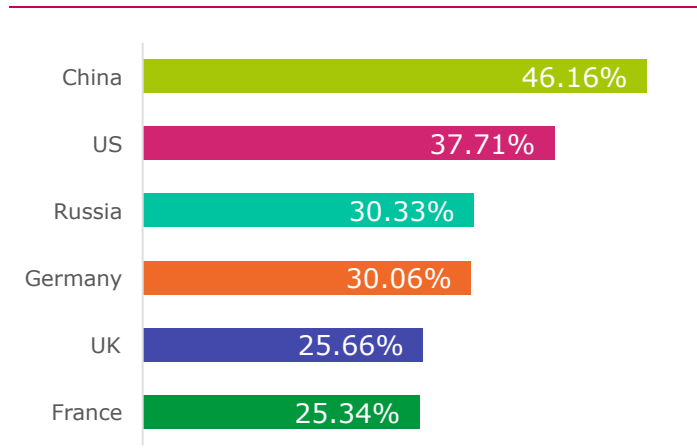


Figure 20: “What percentage of your business transactions are made via mobile devices?” Asked to all (440 respondents), showing average, split by country

Respondents from China and the US are more likely to report a greater average number of applications as being currently critical, and also a greater average number as being more critical in three years’ time, compared to respondents from other countries.

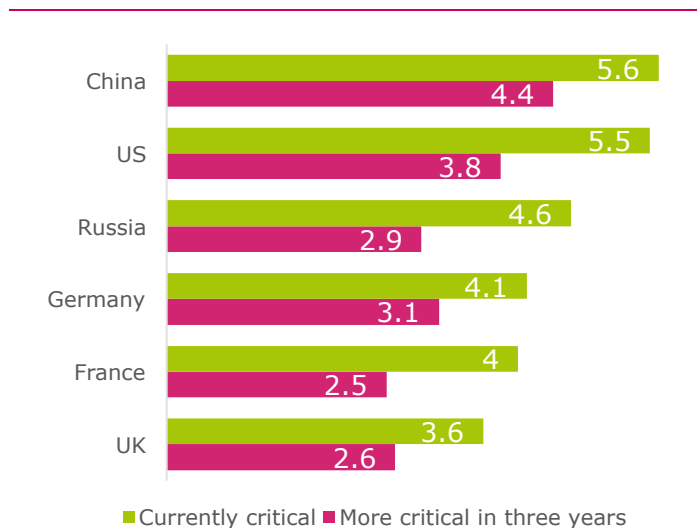


Figure 21: Average number of applications that are currently critical/expected to be critical in three years, Asked to all (440 respondents), split by country

This shows that these organizations are focusing on a greater number of application uses, and as a result are best placed to capitalize upon the increasing number of applications being used in all industries.

China and the US are also the two countries from which respondents are driving the high figures for mobile applications when it comes to the applications that are predicted to be even more critical in the next three years.

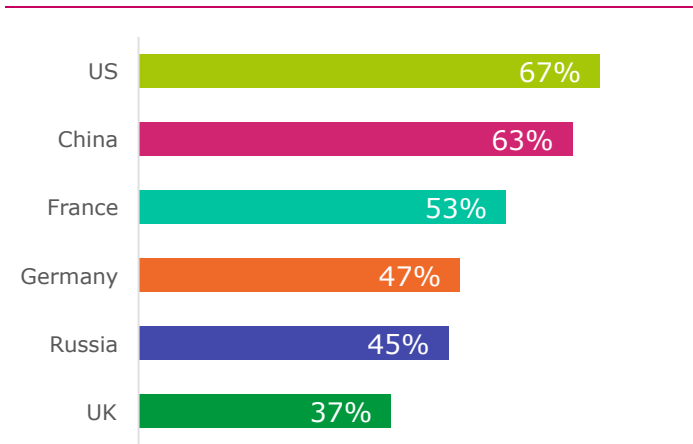


Figure 22: Respondents reporting that mobile applications will become more critical in the next three years, Asked to all (440 respondents), split by country

These organizations are therefore more likely to recognize the importance of mobile applications, and so are best placed to take advantage of them when their use becomes even more vital to their sales in the future.

Respondents from US organizations show that they are more likely to be reporting advanced and forward-thinking attitudes when it comes to various core application deployments and uses. Even if respondents from Germany or China report slightly higher numbers overall in some areas (particularly when it comes to Chinese respondents reporting high levels ecommerce through mobile applications), respondents from the US are more consistent in this. US organizations should therefore be regarded as most likely to be taking advantage of their applications' potential.



Project communications and shadow IT: ITDMs and LOBs compared

Application deployment outside of the IT department

More than one fifth (22%) of LOB respondents report that their non-IT departments are creating applications without the IT department's support, and a further two fifths (41%) are potentially considering this.

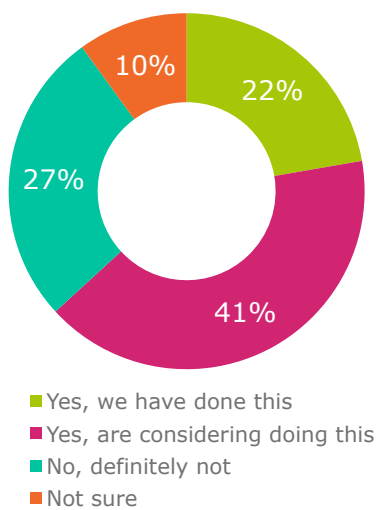
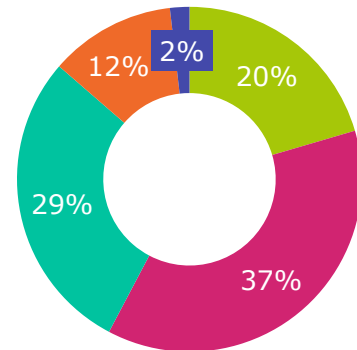


Figure 23: "Has your department rolled out or considered rolling out your own application projects, without the IT department's knowledge or support?" Asked to LOBs (220 respondents)

These figures are equalled almost exactly by the ITDM responses, 20% of whom report that other departments have definitely rolled out their own application projects without the IT department's knowledge, and a further 37% who report that they believe that this may have happened.



- Yes, definitely
- Yes, potentially
- No, definitely not
- No, although I have no way of knowing for sure
- Not sure

Figure 24: "Are there any departments that have rolled out or are considering rolling out their own application projects, without the IT department's knowledge or support?" Asked to ITDMs (220 respondents)

This supports the view previously highlighted that knowledge is being shared between IT and other departments, even where the other departments are seeking to bypass IT controls by deploying their own applications.

But these other departments are deploying their own applications despite the fact that 80% of respondents agree that applications created by departments other than IT are a security risk. Agreement with this view is almost equally likely to be reported by ITDMs and LOBs, which shows that LOBs are aware of the potential impact of their actions. Again, this demonstrates that communication between departments is likely to be occurring, but it does also show that the communication should be more detailed, so that LOBs can understand more clearly the implications of their department's actions. Security should not just be the concern of the IT department, but all departments, and the most efficient way of making this approach a reality is to help departments tap into and make use of the knowledge that the IT department holds. This should be the case even where project requirements necessitate applications being deployed outside of IT's direct influence.

ITDMs and LOBs are also likely to report similar reasons when it comes to why other departments are rolling out their own applications.

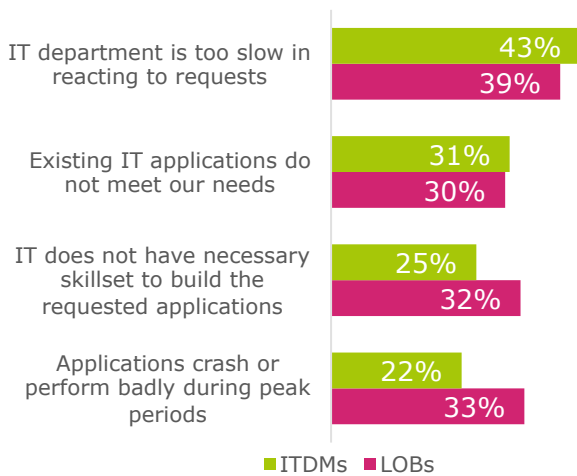


Figure 25: Reasons for departments other than IT rolling out their own application projects without the IT department's knowledge or support, Asked to all who report that projects are being rolled out without IT support (305 respondents), showing key reasons, split by role

This similarity is particularly important for the reason reported by both role types most often: the IT department being perceived as too slow in reacting to requests (reported by 43% of ITDMs, and 39% of LOBs). Furthermore, ITDMs (31%) and LOBs (30%) are also equally likely to report that the current IT applications do not meet requirements. This shows that IT departments are likely to broadly agree on what issues, or perceived issues, are causing departments to roll out their own applications.

The combination of these two factors demonstrates that a significant number of employees believe that their organization's applications are inadequate in their current state, but also believe that updating the applications to improve them happens too slowly when the IT department is responsible. But the IT department is equally likely to acknowledge these issues, where they exist.

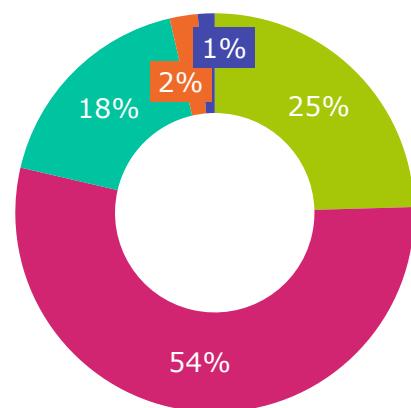
There is however some disagreement when it comes to more specific issues with application development. LOBs are more likely to report that they believe that the IT department does not have the necessary skillset to build the applications needed (32%), and they are also more likely to report that they think their

organization's applications perform badly during peak periods (33%). This demonstrates that even though the IT department acknowledges that there are issues to be solved, the actual nature of these problems is disputed in some cases. Despite the indications that the IT department is communicating with other departments regarding application projects, the communication may not be as detailed as it could be.

Communication between departments

The similarity in responses reported by the two role types shows that, as with the reported problems and impacts of poor application performance, communication between IT and other departments is happening. Decision makers across the organization are therefore likely to have a consistent view about the progress of application projects.

However, the communication that does happen regarding application projects is only of a high standard in a minority of cases.

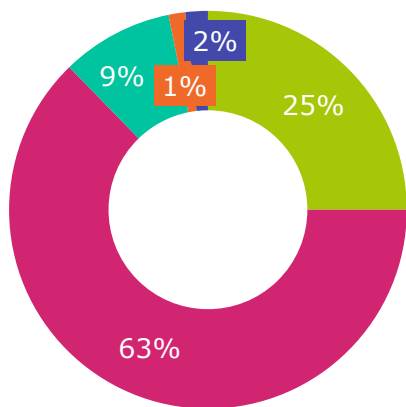


- IT department is completely clear about the technical aspects of projects
- IT department is fairly clear about the technical aspects of projects
- IT department is not very clear about the technical aspects of projects
- IT department is not at all clear about the technical aspects of projects
- Application projects are not discussed

Figure 26: "When discussing and planning application projects with the IT department, do you understand the technical aspects and challenges of the project from the perspective of the IT department?" Asked to LOBs (220 respondents)

Although only 1% of LOBs report that no communication happens at all regarding application projects, just 25% of LOBs report that the IT department is completely clear about the technical aspects of application projects.

Similarly, despite the fact that only 2% of ITDMs report that no communication happens at all regarding application projects, just 25% of ITDMs report that other departments are completely clear about the business needs of application projects.



- Other departments are completely clear about the business needs of projects
- Other departments are fairly clear about the business needs of projects
- Other departments are not very clear about the business needs of projects
- Other departments are not at all clear about the business needs of projects
- Application projects are not discussed

Figure 27: “When discussing and planning application projects with stakeholders from other departments, do you understand the business needs of the project from the perspective of these other departments?” Asked to ITDMs (220 respondents)

This shows that departments are unlikely to be benefitting from each other’s knowledge to the extent required. Bearing in mind also the data from the second chapter in this paper that demonstrated a comparative lack of detailed technical knowledge of LOBs, it shows it is likely that important application knowledge is not held by LOBs. This is of critical importance when recalling the fact that almost a quarter of respondents report that departments other than IT are rolling out their own application projects.

This means that departments, which demonstrably do not have the same level of technical knowledge as the IT department, are deploying applications.

Looking ahead, 59% of LOB respondents report that they definitely, or probably, expect to roll out their own application projects over the next three to five years without the IT department’s help. This shows that this behaviour, and so the issues that go hand in hand with it, are likely to continue.

Communicating and supporting IT to improve application performance

The customer experience is most likely to be impacted by application issues, regardless of what exactly is causing the issues. Respondents are likely to understand the implication to the organization’s bottom line, but despite this only a minority are approaching application projects in a manner where the IT department and the rest of the organization is unified in their aims and knowledge. The IT department ideally should change the perception that they react slowly to requests, either through process improvements or educating LOBs of the practicalities of making certain application updates.

But this is difficult for the IT department in organizations facing an increasing number of applications being deployed (of which many are mobile applications), and where performance during peak usage periods is not meeting expectations. Ultimately, all departments must communicate more effectively with each other to help IT maximize the capabilities and efficiency of the organization’s applications.



Conclusion

The customer experience suffers from poor application performance, and this is inevitably having an impact upon organizations' bottom line. Issues with ecommerce applications can have an impact where sales are concerned. This is affecting organizations' ability to compete, potentially preventing them from being the market leaders.

Having non-IT departments that are building their own applications is not an ideal situation, but this trend is likely to remain, at least in the near future. Because of this, organizations must find the best way of using this situation to its advantage, and minimize the problems by working more closely with the IT department.

The good news is that, although knowledge regarding applications across the organization is not necessarily perfect, there is evidence of reasonable levels of communication between different stakeholders within the organization. But the IT department and other non-IT departments need to work together to optimize these communication channels, and agree best practice approaches. This will minimize the chances of serious application performance or security issues appearing in the future, and should also allow significant progress to be made on current issues.

Lessons can be learnt from the respondents from US organizations, and to a slightly lesser extent, respondents from Chinese organizations. These respondents' organizations are more likely to be getting more from their application development projects, with an increased number of application types regarded as critical now and in the future. They also have a stronger sense that mobile applications in particular are increasingly critical to their organization's sales. These respondents are also very likely to be completely confident regarding their organization's application performance during non-peak periods, demonstrating that meeting SLA performance targets is a realistic goal.

However, even US and Chinese organization respondents indicate weakness in their organization's application performance when it comes to periods of peak demand. In these situations, the proportion that show complete confidence in their organization's applications collapses to levels similar to that of respondents

from other countries. Respondents from the US and China may be more likely to report more extensive use of applications, but the main problems of core applications are reported to a similar extent by all respondents, regardless of their organization's country or sector.

At this point, the retail sector can be regarded as a promising guide of how to create consistent and predictable (if not perfect) application performance. There may only be slightly less than half of the respondents in the retail sector who report this consistent performance, but this still shows that this sector is performing significantly better than other sectors, many of which experience wildly inconsistent application performance. This is of particular importance when regarding the vital role that ecommerce applications play in retail organizations.

Improving core application performance is a difficult task for the IT department alone, and the majority of organizations are struggling with this. It will require a concerted effort from all stakeholder departments across the whole organization to deploy a unified solution that allows applications to be developed that are fit for purpose. But it is vital for organizations to begin this process if they wish to attain a high level of customer satisfaction. Improving the customer experience will allow organizations to maximize revenue and efficiency, leading to a more competitive organization that is not held back by poor application development and deployment.



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This report was originally published on behalf of Brocade.

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