

IT on the front foot

Sourcing, architecture and the progressive IT organisation

Jon Collins and Dale Vile, April 2008

A number of new and established approaches to IT are going to have to work in harmony. In this report, which is based on input gathered from 202 IT decision makers and influencers, we consider how some organisations are doing this better than others.

EXECUTIVE SUMMARY

There is indeed such a thing as the 'progressive' IT organisation

In this study we found a clear correlation between IT organisations that deliver services at a more strategic level to the business, and how businesses perceive their IT organisations. More importantly perhaps, there was also a correlation with stock market performance. While this cannot be put down to IT alone, it is a positive sign and adds considerable weight to the argument that IT can operate as more than just a cost centre.

Progressive IT organisations reveal a progressive approach to sourcing

We looked at a number of aspects of IT sourcing, from the flavour of the month, Software as a Service (SaaS), to the more traditional outsourcing of software development activities. In both, the study showed how the more progressive IT organisations were more likely to adopt such kinds of capability. While this may appear counter-intuitive initially, it also suggests that when IT organisations act more strategically, they are better able to decide on what should be kept in house, or otherwise.

We can learn from the experiences of more progressive IT organisations

Another thing the study shows us is how progressive IT views deployment and operational challenges (such as those documented here for SaaS). While there is no such thing as an 'average' deployment, organisations starting down the path can nonetheless benefit from the experiences of their peers: with SaaS for example, progressive IT organisations see integration challenges as a priority concern.

Architecture and integration become key elements of progressive IT

When we compared progressive attitudes with the propensity to adopt such approaches as service oriented architecture (SOA), once again we found a strong linkage. This suggests more than just a will to adopt new working practices; rather, it is an indicator of how such joined up approaches are a necessary element of a more strategic treatment of IT, which is illustrated further by the propensity to consider the adoption of hybrid models for example, blending elements of SaaS and in house software functionality using both on-site and off-site equipment. Once again, integration is the key – across different sourcing approaches as well as between the distributed systems they furnish.

The goal is for IT to raise its game

While many IT organisations have already adopted a more strategic role, there are many others that are still seen as no more than a cost centre. This is no place for glib statements, but there are a number of practical steps IT organisations can take to deliver a significantly higher level of service to the business.

This report is based on the findings of a research study completed in March 2008 in which feedback was gathered from 202 IT decision makers and influencers. The work was funded by Microsoft, though the study was designed, executed, analysed and interpreted on a completely independent basis by Freeform Dynamics.

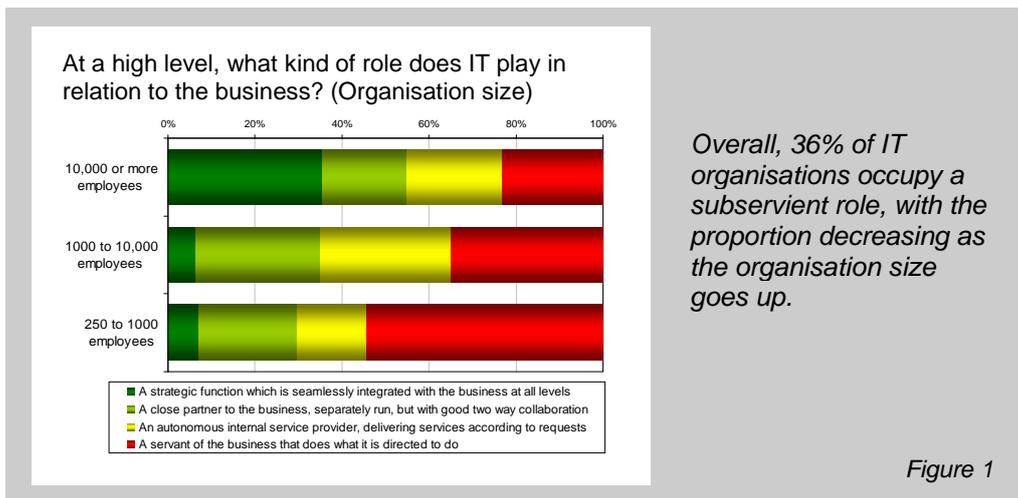
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The Microsoft logo, consisting of the word 'Microsoft' in its characteristic bold, sans-serif font.

What's a progressive IT organisation?

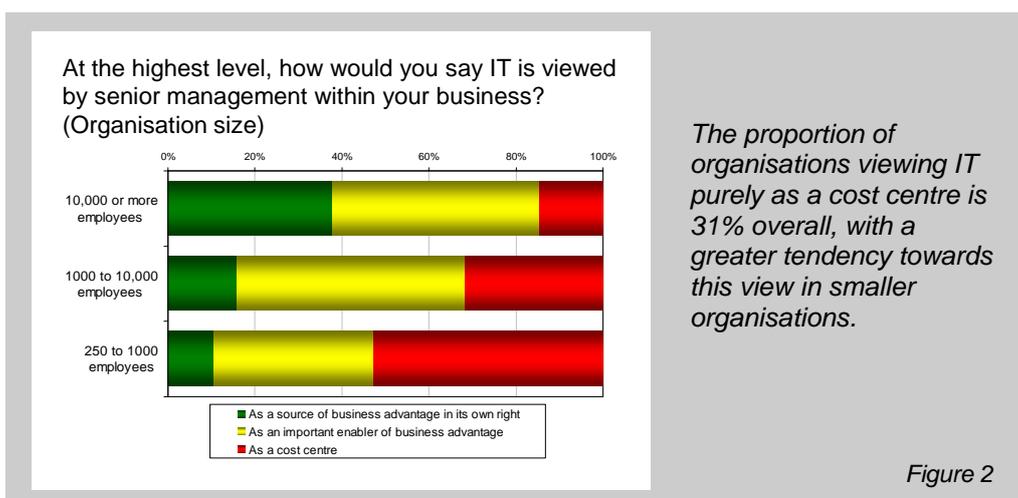
In this report, we shall be referring to “progressive IT organisations”. The exact term we use is less relevant than the point we want to get across – namely that the IT organisations in some companies and public sector bodies do appear to be in a stronger position than in others. There are a number of ways in which this can be viewed, but we shall concentrate on two: the role that the IT organisation plays in relation to the business, and how IT is seen by the business.

As we can see in Figure 1, many IT departments have a subservient role with relation to the business, particularly in smaller organisations. As the size of the organisation increases however, so does the perceived importance of the IT department.



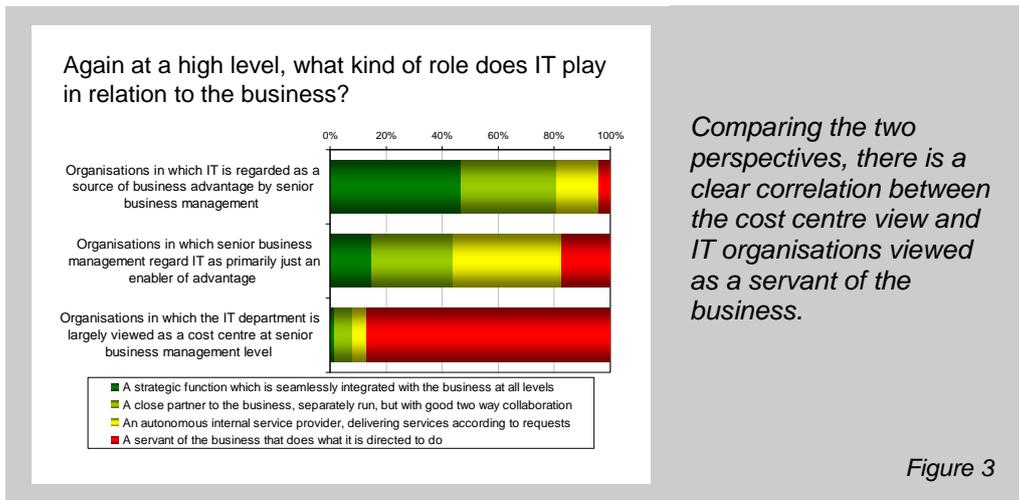
Meanwhile of course, we have what the business thinks of IT (Figure 2). Again this varies according to size, with only a small (less than 15%) proportion of the larger enterprises seeing IT as no more than a cost centre. However, the larger companies do not have a monopoly on being perceived as more than just a cost centre. Of the smallest companies we researched (250-1000 employees), approximately one half reported that IT was viewed either as an important enabler of business advantage, or as a source of business advantage in its own right.

Please note that the smallest (sub-250 employee) organisations, which are less likely to have a formal IT structure were not interviewed as part of this study.



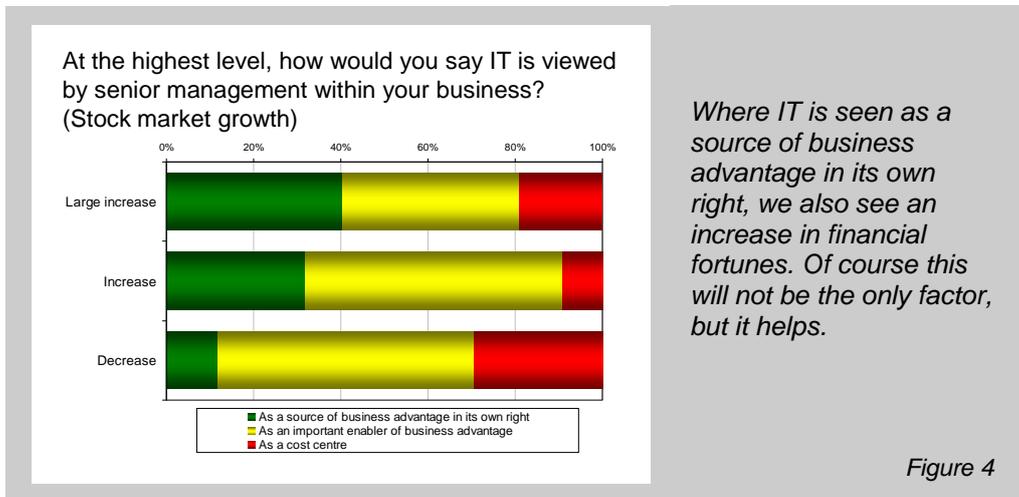
It's very interesting to compare the two perspectives, as shown in Figure 3. The massive correlation between IT being viewed as a cost centre and acting as no more than a servant of the business

should come as no surprise. Meanwhile however, it is heartening to see how the picture changes quite dramatically in organisations where IT is regarded as a source of business advantage.



The two perspectives are very much yin and yang – of course, if an IT organisation is acting in a strategic role, one would hope that it is viewed strategically as a result. Indeed, the IT organisations that consider themselves to be acting strategically, but which are viewed as no more than a cost centre, would be right to react with some alarm.

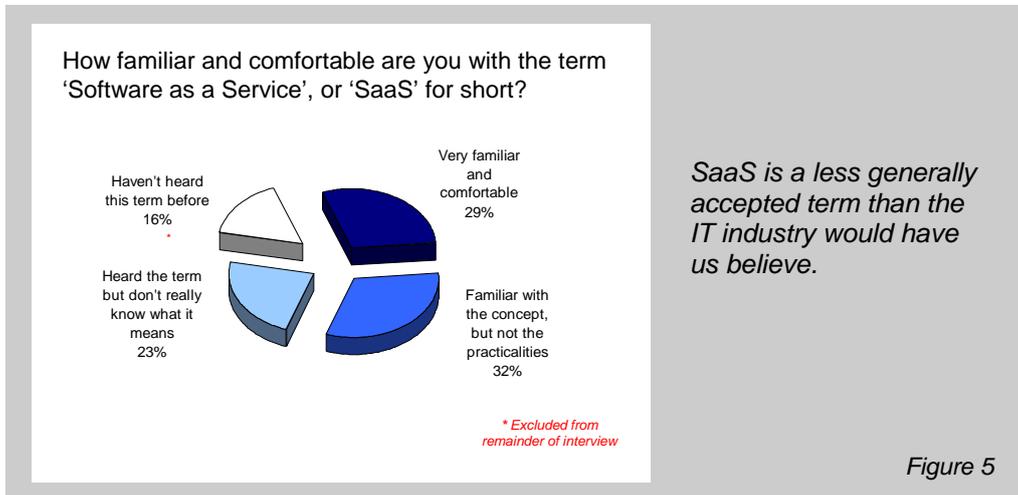
But does it make any difference? Well, Figure 4 below would suggest it does. When we looked into the subset of organisations that are listed on the stock market, as shown in the figure below there is a direct correlation between organisations that see IT as a source of business advantage in its own right, and those which have seen a larger increase in stock market growth.



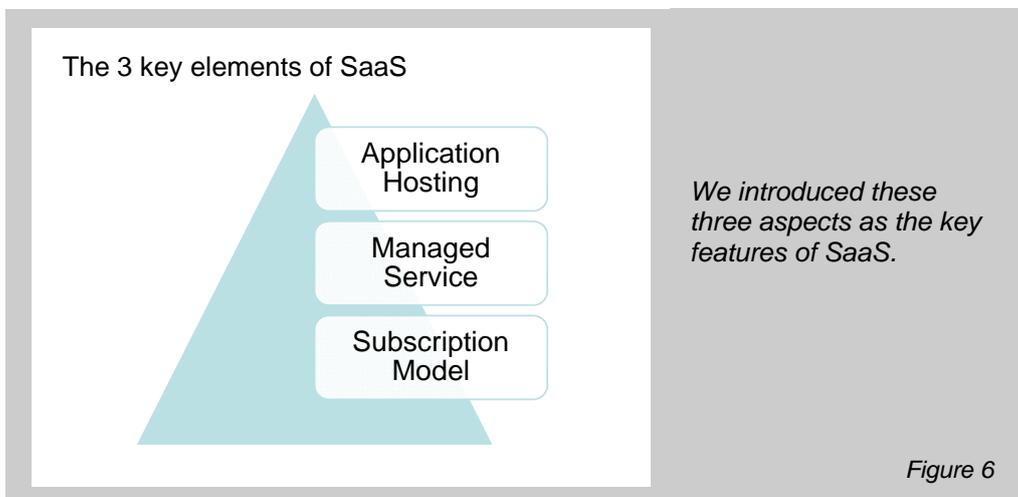
While larger companies are more likely to have ‘front-foot’ IT organisations, as we have already seen from Figures 1 and 2, organisations of all sizes may see their IT departments as strategic providers of business advantage. It is the impact of this strategic role that we shall be looking at in more detail, in the rest of this report.

Drilling into Software as a Service

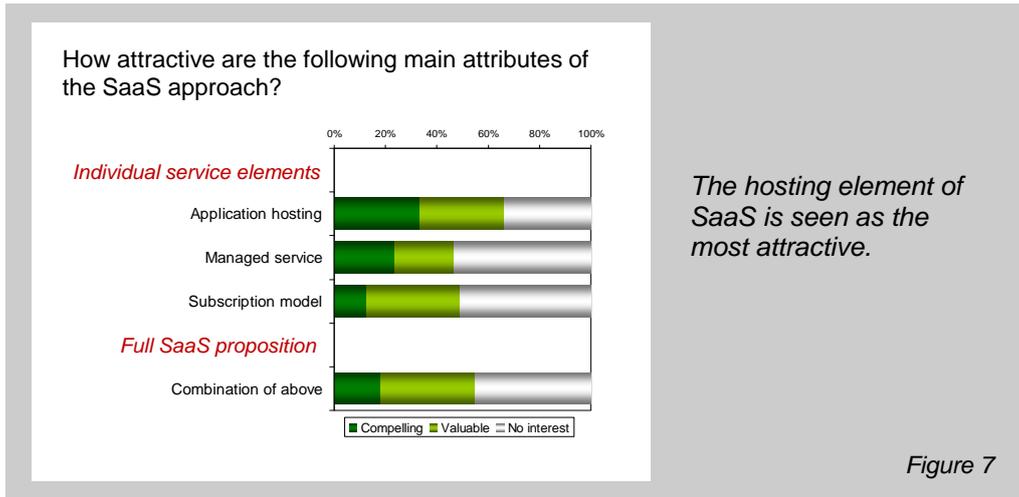
To kick things off, let's consider the general level of familiarity we can see with Software as a Service (SaaS). As can be seen from Figure 5, around 5 in 6 respondents have at least heard of the term. However, less than 1 in 3 respondents overall indicate a good level of comfort with the meaning and practicalities of SaaS. This is an important finding as it flies in the face of the "industry assumption" that SaaS is a well-understood term.



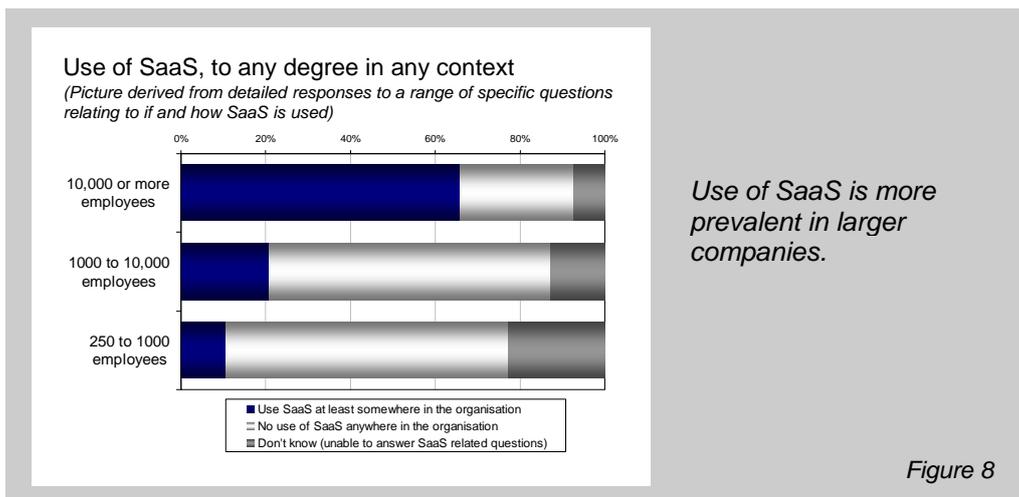
So, what is SaaS anyway? When presenting SaaS to interviewees, we introduced the 3 elements shown in Figure 6 and used examples such as hosted Customer Relationship Management applications for illustration.



When we asked why organisations would want to consider SaaS, the hosting element – that is, using somebody else's servers and equipment – is seen as the most attractive, compared to the other key elements of the SaaS proposition. It is interesting to note that the subscription model, probably the most frequently stated benefit of SaaS, was recorded as being the least attractive of the key elements. SaaS providers would of course highlight the point that the whole is greater than the sum of the parts, but this view is not borne out by the responses in Figure 7.



Use of SaaS is more likely to be seen in larger companies according to the higher level view shown in Figure 8 – this is in itself counter to a core premise of SaaS, that it is suited to less IT-skilled organisations (which tend to be found in smaller companies). Note, however, the question is geared around “use to any degree in any context” – so we need to add the caveat that a linear adoption by function would result in a larger adoption by company size. Simply put, larger companies use more software, so it is more likely that at least one element will be using the SaaS model. That said, at a minimum it does show that the SaaS proposition is not exclusive to smaller organisations.



Some of these points are corroborated when we look at the kinds of applications people see as suitable for SaaS. As shown in Figure 9, SaaS is generally considered to be more appropriate for requirements that are non-critical and stand-alone in nature. As either the level of criticality or the level of integration with other systems increases, however, there is greater concern over the suitability of the SaaS approach. When we look at the extreme of highly integrated business critical applications, the majority of respondents do not currently consider SaaS to be an acceptable option.

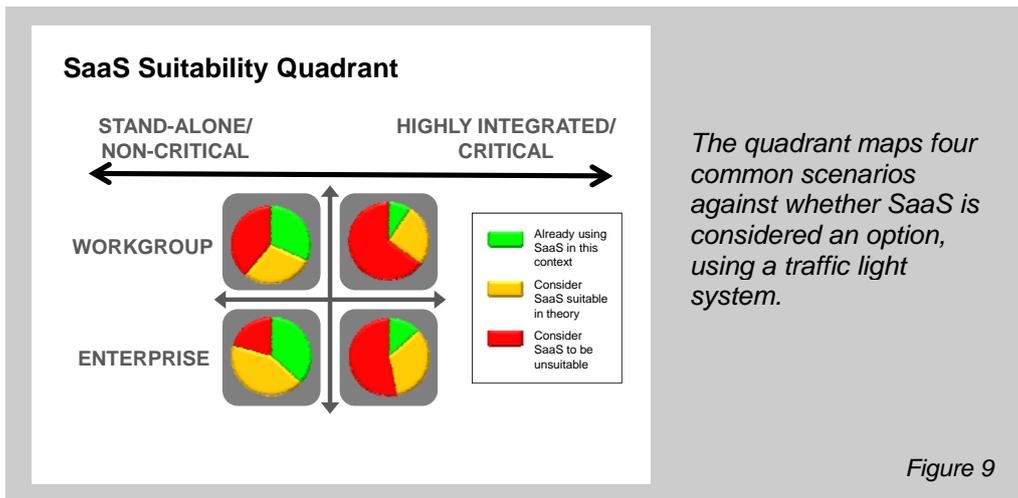


Figure 9

Finally, it's worth a look at the drawbacks to SaaS. As shown in Figure 10, there are concerns across the board among organisations that have not yet adopted SaaS, with integration and cost issues at the top of the list.

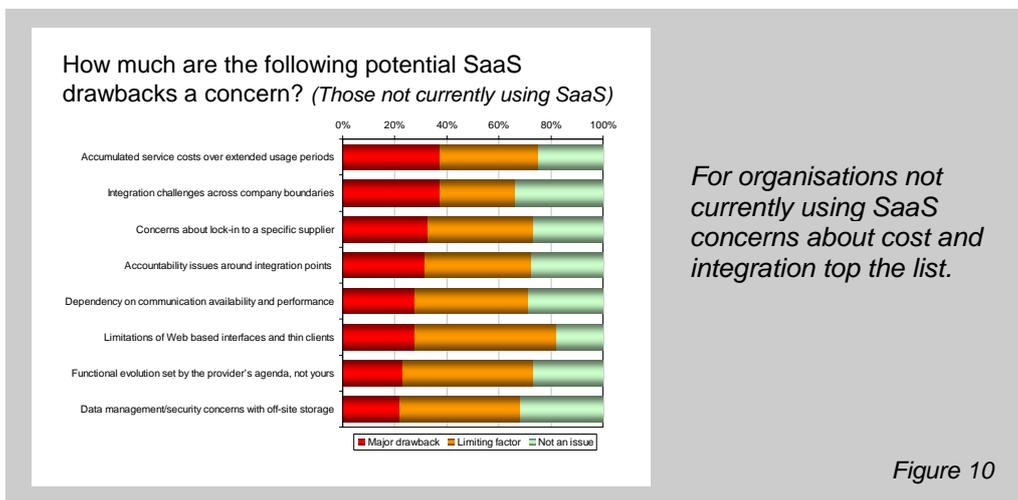
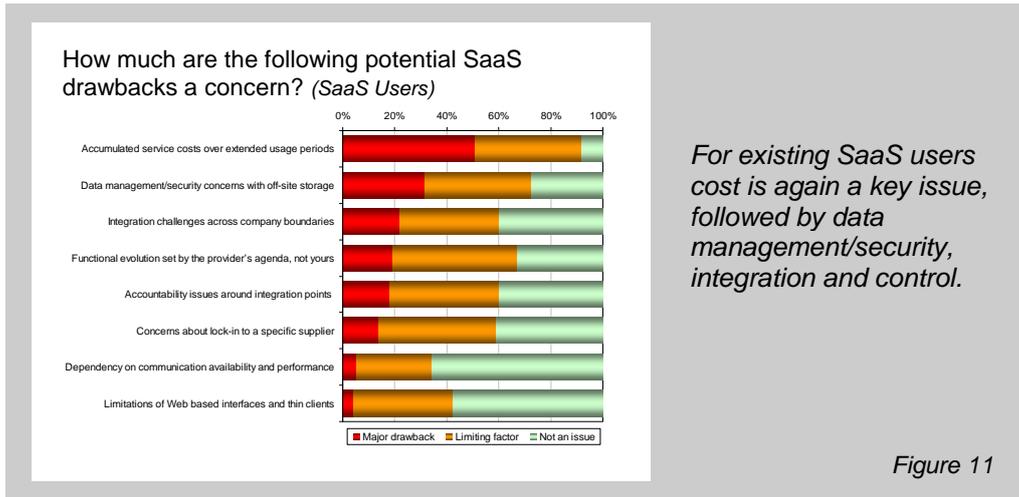


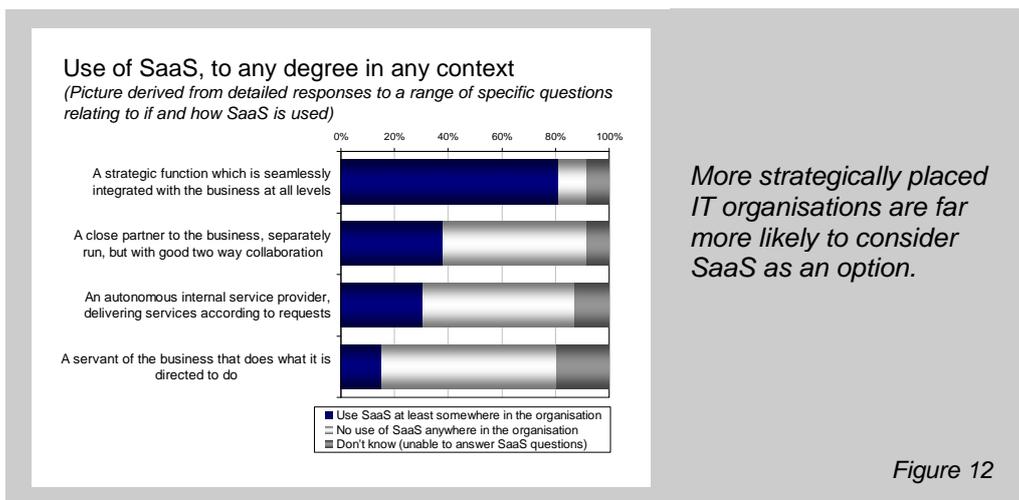
Figure 10

Cost becomes the outstanding issue when we look at existing SaaS users in Figure 11 below. In addition they give data management a much higher level of significance, followed by integration. Both of these can be considered as being highly interrelated and so add further support to the overall concerns of integration with a purely SaaS based approach.

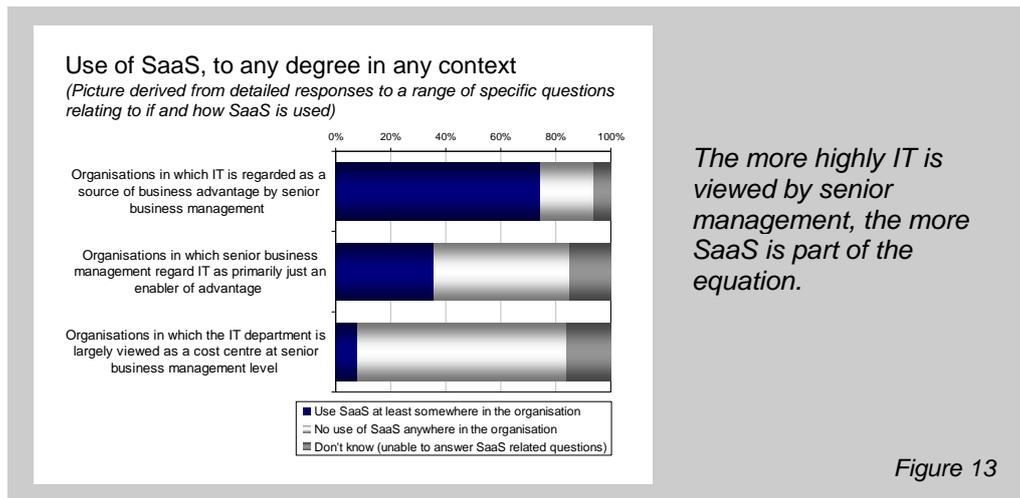


The progressive take on SaaS in particular, and sourcing in general

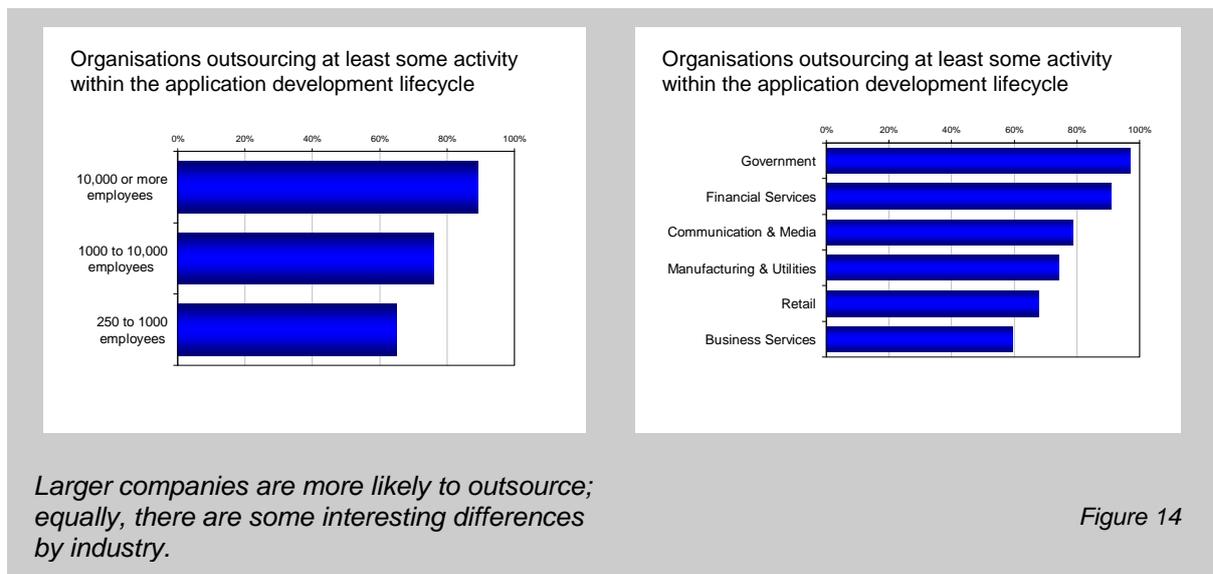
The generic view on SaaS is very interesting in its own right, but what if we consider it within the context of IT's role and perception with respect to the business? This is where things get interesting – for a start, from Figure 12 we can see a straight correlation between the perceived role of IT and the propensity for SaaS.



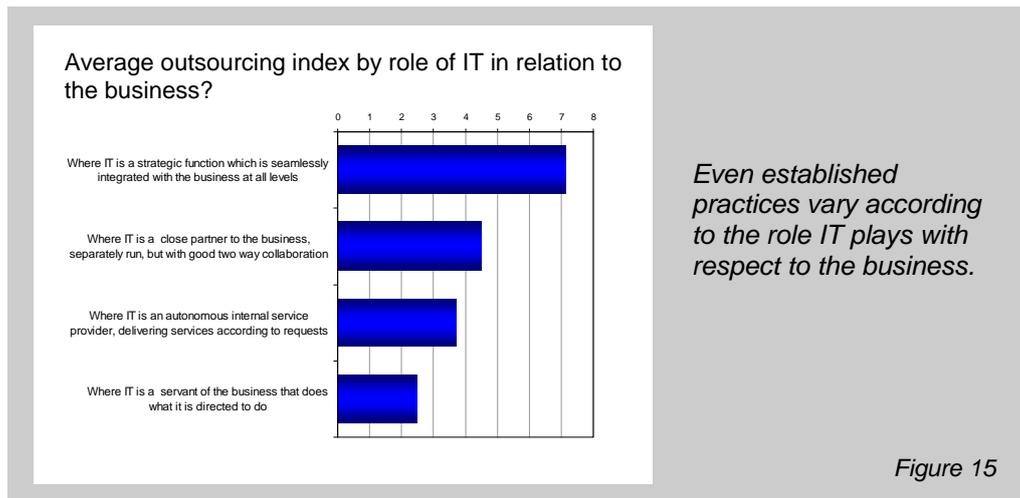
The view is the same from the business perspective: as shown in Figure 13, the higher the standing of the IT department within the organisation's senior management, the more SaaS is part of the equation.



Such patterns don't just appear for SaaS: we can see a similar picture for outsourcing – in this case, for application development. The subcontracting of development is not a new phenomenon, so it is to be expected that the majority of organisations are outsourcing development in some way. Larger organisations are doing more outsourcing than their smaller contemporaries, with 9 out of 10 making at least some use of outsourcing in this space (Figure 14). The acceptance of development lifecycle related outsourcing reduces with size, but even in the mid-sized category of respondents (250-1,000 employees) we see two thirds of organisations taking advantage of external resources. There are also some interesting differences by industry vertical.

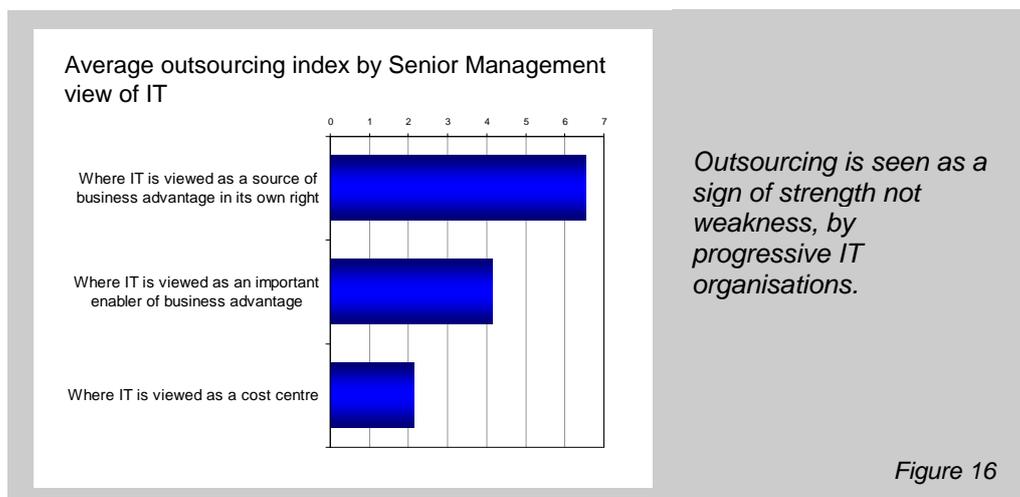


So, even given that application development outsourcing is better established, what's the progressive view? Figure 15 below shows a composite representation of some of the research findings. When speaking with respondents, we asked them to what degree they used external services in five separate stages of the delivery lifecycle, from requirements gathering, through design, coding, etc, to final testing and rollout. As it is difficult to visualise differences in the breadth and depth of development outsourcing when looking at so many individual elements, we therefore derived an index from the data by allocating a score to each response – 2 for extensive outsourcing of an element, 1 for some outsourcing, and zero for none. This gives a maximum index of 10 for those who outsource all elements extensively.



As we can see, outsourcing is much more likely to happen if the IT department is positioned as a strategic partner to the business. This picture is perhaps counter intuitive, but it illustrates very strongly that when IT is genuinely embedded as a strategic and integral part of the business, its role is more one of facilitation and orchestration.

When we compare the degree of outsourcing with the standing of IT within the business, it is clear that use of external lifecycle services goes hand in hand with a higher perception of IT value (Figure 16). More mature CIOs are therefore the ones that put the emphasis on 'directing' rather than 'doing', and are not hung up on executing everything in house. At the other extreme, those who are protecting their technical empires are perceived to be delivering the least value to the business.

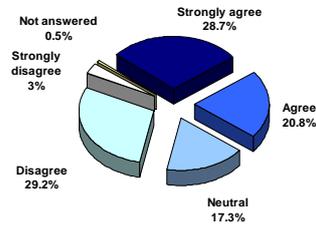


So – more forward thinking IT organisations are more likely to source technology and services externally, a view that is counter to the “if in doubt, take it out” view on both SaaS and application development outsourcing. Traditionally, both approaches have been viewed as a partial crutch to IT departments that are less able to deliver the services themselves – but more commonly, they are symptomatic of a mature IT organisation.

The architectural view

Are there any linkages we can draw out between progressive IT organisations and the role of architecture? One of the questions we asked was around the general level of commitment to service oriented architecture (SOA) – roughly 50% of organisations acknowledged some level of commitment (Figure 17).

How much would you agree with the following phrase: "We are committed to adopting service oriented architecture as we continue to evolve and modernise our IT systems"

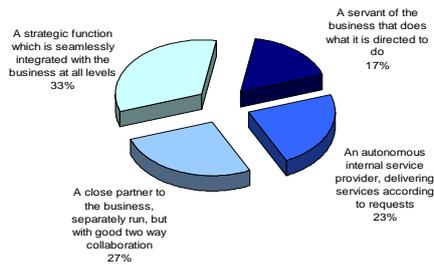


Roughly 50% of organisations acknowledged some level of commitment to SOA.

Figure 17

When we treated those organisations committed to SOA as a sample, we found that only 17% of organisations committed to SOA viewed IT as no more than a servant to the business (Figure 18). This is a fascinating correlation, indicative at the very least of the interconnections between technological approaches and the overall role of IT.

Again at a high level, what kind of role does IT play in relation to the business?
(Organisations committed to SOA)

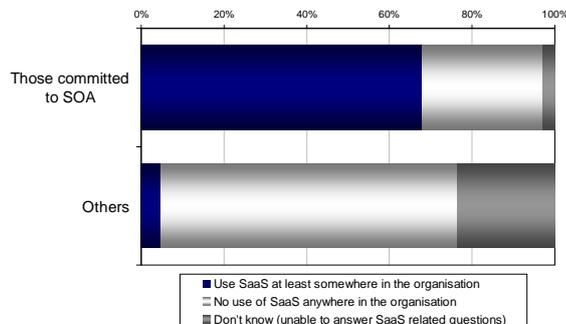


Organisations adopting SOA are less likely to have placed IT in a purely tactical role.

Figure 18

As shown in Figure 19, we also found a connection between the adoption of SOA, and the role of SaaS.

Use of SaaS, to any degree in any context
(Picture derived from detailed responses to a range of specific questions relating to if and how SaaS is used)



Meanwhile, organisations committed to SOA are also those with a propensity for SaaS. What's going on?

Figure 19

Not all of these views should be considered in terms of cause and effect. Rather, we can deduce that the kinds of organisations adopting SaaS are also adopting SOA, and these are also the ones perceived as progressive by their organisations. We cannot say from these responses whether organisations see SOA as a pre-requisite for successful deployment of SaaS. However, given the integration requirements we have already highlighted in Figure 11, the existence of SOA may well ease the pain.

What of the future? In general in IT, no great innovation has come about to the exclusion of all others; rather, even massive steps such as the Internet have been subsumed and integrated with what has gone before. Assuming it will be the same for such areas as SaaS and outsourcing, we can expect to see a situation where organisations are looking to integrate such approaches with in-house capabilities, with SOA providing a supporting framework.

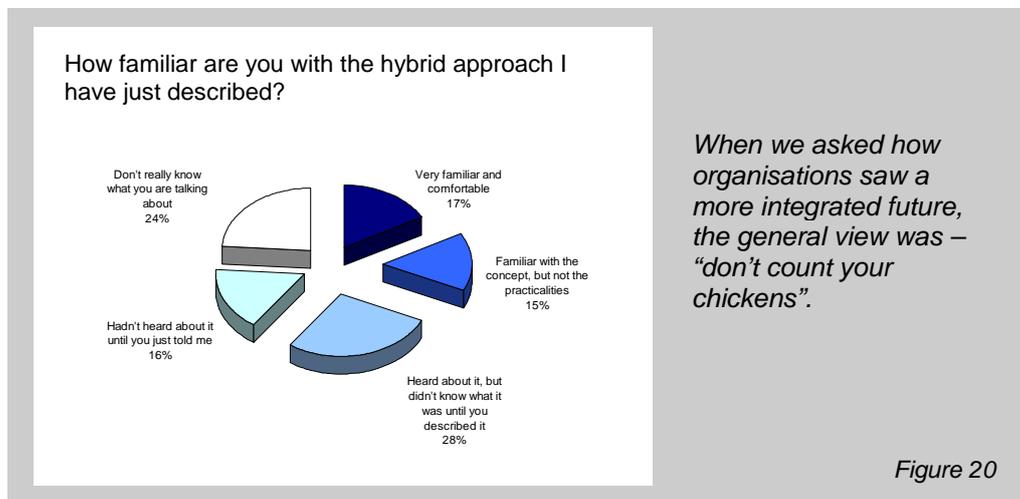
To determine whether this was the case, we described a potential hybrid scenario and asked whether this was the case, we found that use of such a model was limited but that there was evidence of early adopter activity. The exact scenario we described was:

A development that is picking up much industry interest, is the emergence of options to blend elements of the traditional SaaS approach with elements of the traditional on premise approach to deploying software. The idea is that it becomes less a case of choosing between one or the other for a given solution, and more about constructing architectures that allow local and remote capability to work together effectively.

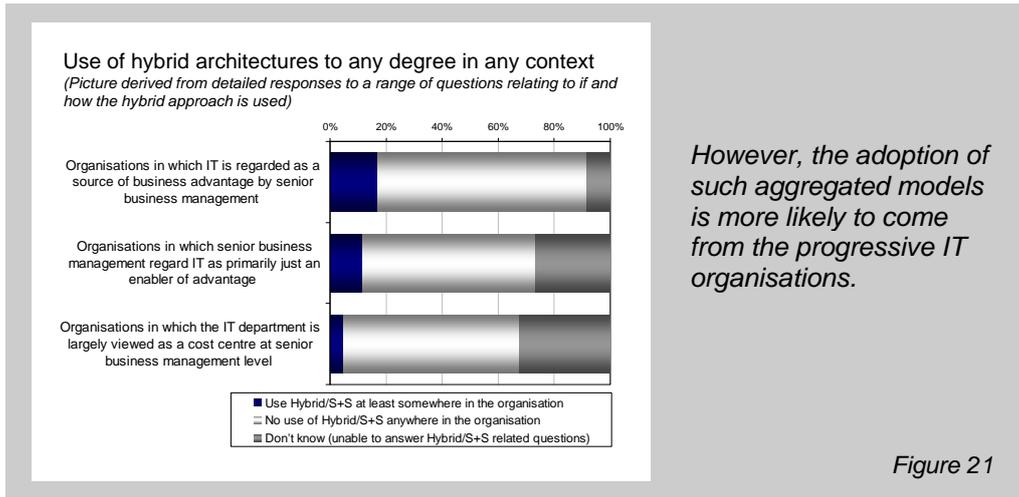
IBM discusses this when it talks about service oriented architecture enabling external providers to deliver web services that may be consumed by software running on a local server or desktop machine. Microsoft has coined the term 'Software plus Services' or 'S+S' to refer to the same thing.

The whole approach goes hand in hand with the trend towards service orientation, increasing standardisation of application interfaces, and the 'plug and play' or component based approach to software engineering and architectures.

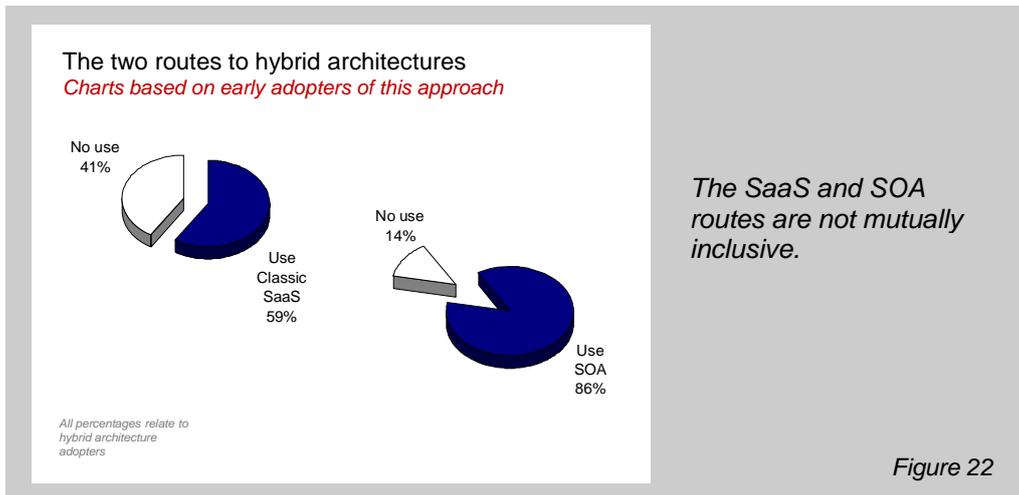
Only 11% of respondents said there was some kind of activity in this area – though as Figure 20 shows, 60% have some awareness of hybrid approaches.



Given such a small proportion, we need to tread with caution when interpreting the findings. However, we see a similar picture when we look at the front-foot aspects, as when we consider sourcing and SaaS. From a research perspective, Figure 21 below is pushing the bounds of statistical validity but it does give us a general indication: while the percentage is small, adoption is more likely to come from the leaders.



Some argue that the hybrid approach is an evolution of the classic SaaS proposition. However, as we indicate on Figure 22, while there is some evidence that this might be the case (referring to the left-hand pie chart) it is interesting to note that 41% of our small population of adopters are not actually SaaS users at the moment.



We do need to be careful about the fact that only 22 respondents are shown on this chart, but the correlations are consistent with there being two potential ways of arriving at a hybrid architecture – one as an extension of SaaS related activity and the other as an extension of an SOA, with the latter looking like a stronger and (arguably) more natural route. Independent of which direction the adoption comes from, it would make sense that the resultant hybrid model would need to have considered the integration issues of data and services being hosted both in-house and externally – suggesting that even if SOA is not a catalyst, it will be an element of the resulting architecture.

Conclusions

We can draw two indisputable conclusions from this study. The first concerns the relationship between the perception of IT by the business, and the performance of the business itself. As we have said, while it is important for IT to be delivering services to the business at a strategic level, the more important metric is what the business thinks of IT. It is like in a restaurant, where the quality of the menu has to be seen as subordinate to the reaction of the clientèle. It would be too much of a leap to suggest that the IT department is the main driver of business performance; what we can say however is that organisations that are “doing business right” are also “doing IT right” by recognizing the strategic role IT can play.

The second correlation concerns how such ‘progressive’ IT organisations consider, and then adopt certain technologies and approaches. In this instance we look at Software as a Service and the outsourcing of software development, both of which have been approached with some trepidation in certain quarters. In reality, such approaches are neither good nor bad in themselves – it is how they play within the overall IT strategy that counts. From this study, the variances in adoption suggest that progressive organisations are far more likely to consider such approaches than their more ‘back-foot’ counterparts. Given the propensity of progressive IT organisations for SOA, they also appear to be better placed to manage the kinds of hybrid architectures that are appearing.

At this point, it would be easy to slip into cliché by saying “Become a dynamic, business-aligned IT organisation and you and your business will reap great rewards.” As we all know however, things are not as simple as that. There are certain, practical steps an IT organisation can take to raise its game, as distilled down from a number of CIO interviews in our book *The Technology Garden* [1]:

1. The IT organisation needs to get the basics right
2. Create a common language between business and IT
3. Establish a peer relationship between business and IT
4. Work towards co-ordinated goals and objectives
5. Manage IT as a business-driven portfolio
6. Foster relationships with key IT suppliers

From experience we know that new technologies and approaches tend to be accumulated and aggregated with what has gone before. It is therefore a fair assumption to make that many of the current wave of so-called trends – SaaS, managed services, outsourced development and the like – will need to work in harmony with each other and with existing technology assets. We can also say with what we believe is a fair degree of accuracy, that the more progressive IT organisations will be better placed to manage the ongoing integration process that will be required, and deliver appropriate services to the business as a result, than those seeing each wave as a source of headaches.

The bottom line is that IT does not matter in itself, it is only as an enabler of business services that it has any value at all. While we cannot offer any silver bullets, we can state with some confidence that IT organisations that adopt a more progressive approach are better able to adopt new technologies and serve their organisations better. Not only this, but in the yin and yang between business and IT, it is the more profitable organisations that recognize this. Putting all motherhood to one side, that has to be a goal worth gunning for.

References

[1] *The Technology Garden : Cultivating Sustainable IT Business Alignment* by Jon Collins, Neil Macehiter, Dale Vile, Neil Ward-Dutton , John Wiley & Sons (6 Jul 2007)

For further information, visit the book’s web site <http://technologygarden.wordpress.com>.

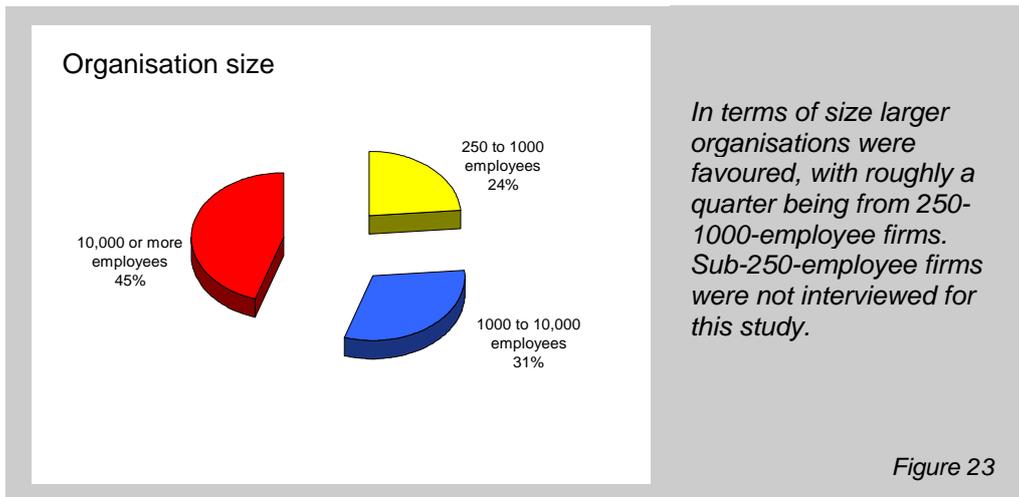
The research sample is provided in [Appendix A](#).

Appendix A

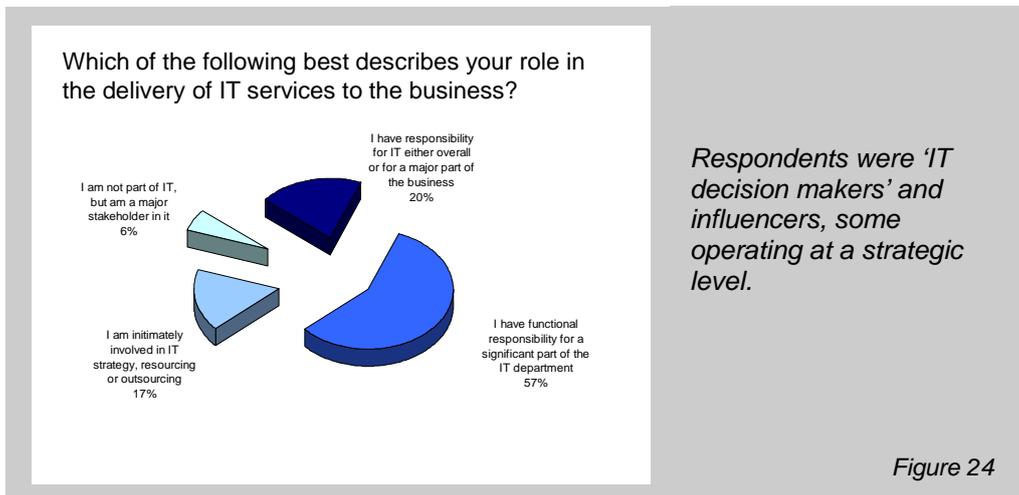
RESEARCH SAMPLE

The research sample was comprised of 202 UK-based respondents, split approximately equally across the following industry sectors: Financial Services, Government, Manufacturing & Utilities, Communications & Media, Business Professional Services and Retail (including Wholesale & Distribution, Transport & Logistics).

Organisation size was as follows:



In addition, we focused on the following respondent profiles.



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Paul Curtis, Easyjet
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Rupert Brown, Merrill Lynch
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Stephen Simpson, Logica
Mark Boggis, Clifford Chance
Stewart McEwan, Digital Semantics
John Pollard, Unisys
David Marshall, Pfizer
Bryan Boreham, Barclays Capital
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Ian Race, Agile Enterprise
Oliver Presland, Cap Gemini
Ed Bradford, Royal Bank of Scotland
Jeremy Locke, British Energy

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