Delivering Effective IT Support

A Business Management Perspective

August 2006

Regardless of the size of your organisation, the chances are that IT has become a fundamental part of your business. Making sure users are properly supported in their use of IT is therefore very important. But how well is your IT department doing in this area and what are the opportunities for optimising the delivery of IT support services? This report considers these questions and others based on an online research study completed in mid 2006.

KEY FINDINGS

Perceptions of IT support are positive on balance, but there's room for improvement

When 2,630 IT and business professionals were asked to rate end user attitudes to IT support during a recent online survey, the majority of respondents said their users were positive on balance. Overall, the ratings provided gave rise to an average satisfaction index of 6.5 on a scale of 0 to 10, where 0 = "Very Negative", 5 = "Neutral" and 10 = "Very Positive".

Better performance in smaller organisations underlines the value of relationships

IT staff in smaller organisations with less than 200 employees are typically involved in development and/or operations, as well as support. The increased number of touch points with users, along with the lower number of people involved on both sides of the equation, allows better communication and encourages greater mutual empathy. The end result is stronger relationships driving a higher satisfaction index of 7.2, compared to 6.0 and 6.2 in large and mid-size organisations respectively.

Knowledge of the installed base is critical to effective support delivery

Those with an accurate and up-to-date knowledge of the hardware and software installed in their IT landscapes and user base achieve a satisfaction index of 8.3 on average, compared to 5.5 for those with little or no confidence in their knowledge of assets and how they are configured.

The fitness for purpose of support systems has a direct impact on user satisfaction

Generally speaking, larger organisations make much more use of software applications to assist in support delivery, with smaller companies still relying heavily on ad hoc tools. The main driver of results, however, is fitness for purpose of whatever is used. Those saying their support systems are in good shape achieve an average satisfaction index of 8.1, while those with struggling systems at the other extreme score less than 5.

Best practices can boost user satisfaction, but results vary significantly by size

23% of enterprises with more than 5,000 employees are committed to best practices such as ITIL and COBIT. These achieve a 37% higher satisfaction index on average than their counterparts who have dismissed or not looked at best practices at all. Enterprises adopting a subset of best practice ideas that they regard as relevant achieve significantly less benefit. This selective approach, however, seems to work better than full implementation for mid-sized companies with less complex processes and fewer IT staff. Very few small organisations are active with industry best practices.

This report is based on an online survey of 2,630 IT and business professionals completed in June 2006. The study was designed and executed independently by Freeform Dynamics with sponsorship from Numara Software.

Introduction

Information technology is now an essential business enabler. Given this, it would be nice to think that it always worked in the way that it should, but it doesn't. The number of factors that can interfere with the smooth running and use of technology is high – the quality and reliability of hardware and software, the interplay, dependencies and conflict between different components, and, not least, the way in which end users use and abuse systems and equipment.

The reality is that things can and do go wrong for a myriad of reasons. One of the critical functions of any IT department is therefore to anticipate and reduce the risk of problems occurring, and be prepared to fix them quickly and effectively when they inevitably do.

How well this is done can have a direct bearing on the value delivered by IT overall. Without adequate support, users are unduly hampered in their use of IT and may even be prevented from doing their jobs. Effective delivery of IT support is therefore a key enabler of overall business performance. The trouble is that all too often business management doesn't see it in this way. In many organisations the IT support function is viewed as simply a cost or overhead that needs to be managed.

To illustrate the point, it is interesting to consider attitudes to IT systems availability. Many an executive can quote the cost of downtime associated with the failure of a central system that is critical to the business. Indeed, service levels around availability at this level are often used as a key indicator of IT performance. To an individual user, however, the time between reporting a problem to the help desk and getting that problem resolved can also represent downtime, or at least an impediment to their productivity and effectiveness. Yet the business impact of IT related problems occurring at an individual user level are often not assessed, even though the aggregate cost and disruption can be significant.

Against this background, it is becoming increasingly important for business management to take an interest in how effectively IT support is delivered and acquire an understanding, at least at a high level, of the investments and initiatives that can help to optimise performance in this area.

With this in mind, the remainder of this report looks at the factors influencing the effectiveness of IT support based on the results of an online study in which feedback was gathered from 2,630 respondents. The objective is to provide insights, advice and guidance to those wishing to drive improvements in this area, particularly looking at where best to put the emphasis in terms of activity and investments to achieve the greatest positive impact. We have taken more of a management level perspective rather than a practitioner viewpoint while doing this, the intention being to help with the formulation of an improvement strategy, rather than to deal with the specifics of implementing particular improvement initiatives.

Assessing Effectiveness

There are many ways of assessing the effectiveness of IT support and different organisations will emphasise and track different parameters – case throughput, resolution times, user feedback scores, and so on. Within the study, however, which covers a broad cross-section of industries and company sizes (Appendix A), we needed a simple way of assessing the impact of different factors on performance without getting too bogged down by complex metrics.

We therefore elected to use a simple satisfaction indicator based on responses to the following question:

> *How does the end user community in your organisation generally feel about the IT support services they receive?*

An index score was derived from this on a scale of 0 to 10, where 0 indicates a very negative feeling, i.e. the lowest level of satisfaction, 5 indicates neutrality, and 10 indicates a very positive feeling, corresponding to the highest level of satisfaction.

While subjective in nature, use of this kind of indicator works very well with large sample sizes such as the one obtained in this study for comparing and contrasting different groups within the overall respondent base, and the findings are very revealing as we shall see.

Resourcing and Relationships

The average satisfaction index achieved across-the-board is 6.5 on the scale previously described. As the sample is predominantly made up of IT professionals, this represents IT departments telling us that on average, they perceive a net positive feeling among their users, but that there is clear room for improvement.

When we look at the satisfaction score by organisation size, we see that smaller organisations generally achieve better results than larger ones (Figure 1).

End user perception rating of IT support services by organisation size

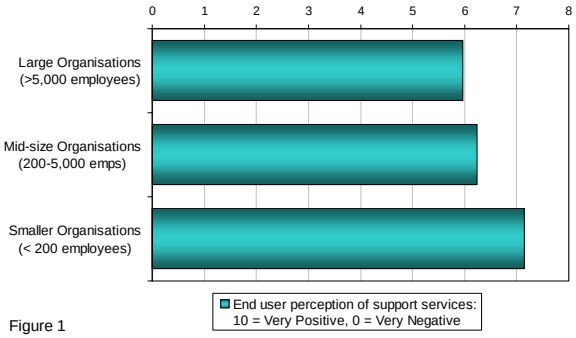

Figure 1

Smaller organisations generally achieve better results than larger ones.

Looking at the way in which IT support is resourced can provide a clue as to why this might be. Firstly, there is the obvious factor of scale, with larger organisations having many more users to support and therefore many more technicians involved in providing that support (Figure 2).

How many people within your IT department are directly involved in end user support?

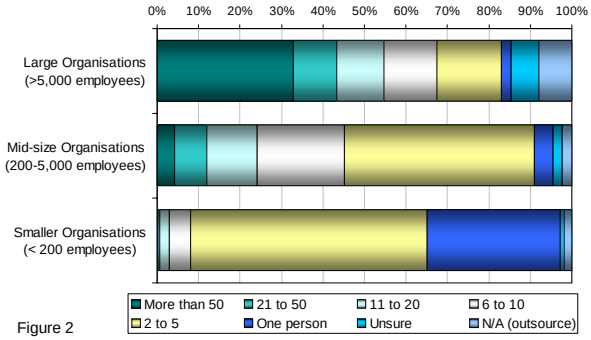

Figure 2

The more intimate nature of support in a small organisation, in which IT staff are often on first name terms with a relatively small number of users, tends to enhance the level of service.

While scale often works in our favour with regard to efficiency, however, the same is not necessarily true for effectiveness. In the business world in general, good working relationships often enhance effectiveness, and this principle holds true in relation to IT support delivery. The more intimate nature of support in a small organisation, for example, in which IT staff are often on first name terms with a relatively small number of users, tends to enhance the level of service. The opportunity for ongoing working relationships to develop in a large enterprise environment is much less, as the centralisation to drive economies of scale tends to depersonalise the support experience, with users more likely to encounter a different technician each time they call the help desk.

The other big difference between larger and smaller organisations is the degree to which support staff are dedicated (Figure 3).

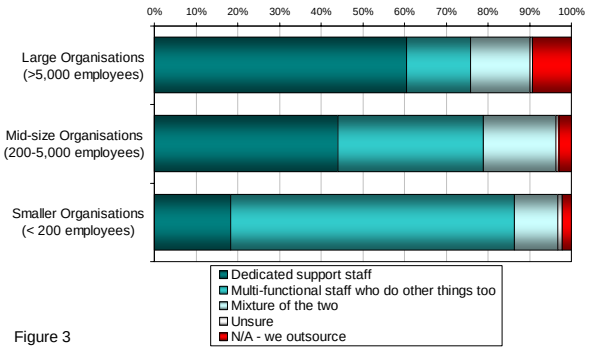

Figure 3

Smaller organisations are much more likely to be using multifunctional staff who do other things apart from IT support delivery. Such staff will generally have a broader knowledge of the systems they are supporting.

As we can see, smaller organisations are much more likely to be using multi-functional staff who do other things apart from IT support delivery. This can potentially cause time and availability issues as staff can be pulled in different directions according to conflicting priorities. It also, however, means they are likely to have a broader knowledge of the systems they are supporting through development, maintenance and/or operations activities. This in turn can enable a more holistic approach to troubleshooting and support, with fewer hand-offs and escalations along the way.

The principles we have been discussing here are corroborated when we look at the other extreme, in which organisations have outsourced IT support to a third party (Figure 4).

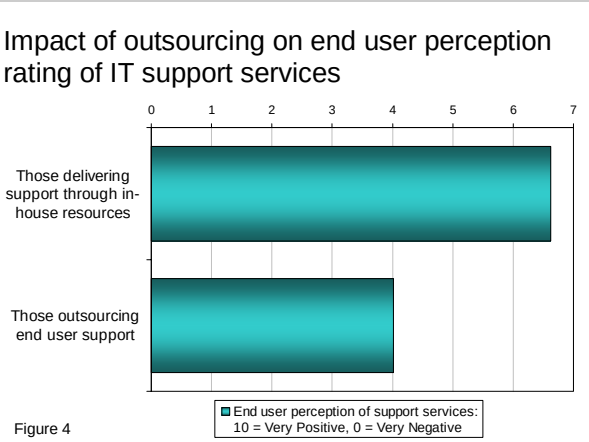

Figure 4

Organisational distance between technicians and the users they are supporting makes maintaining user satisfaction a challenge when IT support is outsourced to a third party.

We need to be careful about taking these scores literally as they are largely based on the opinions of internal IT staff who may not have the best relationship with the outsourced service provider, but the difference observed is large enough to suggest there are real challenges in this area. Organisational distance along with the possible cultural and language differences between technicians and the users they are supporting (common challenges with a centralised outsourced service, especially when off-shoring is involved), can clearly have a negative impact on the effectiveness of the service delivered.

There are potential lessons in the above findings for larger organisations in particular, some of which could benefit from aligning support teams with specific business units to encourage

relationship building. This is not always possible, especially when specialist skills are involved, but it is certainly something to consider.

It may also be worth larger organisations considering experience programmes or job exchange initiatives to provide dedicated support staff with a more rounded view of the systems they are supporting. Even better if they can spend some time in or with the business, acquiring a feel for the environment in which the users they are supporting actually work. Again, this is not always easy to implement, but the results achieved in smaller organisations in which such things happen naturally suggest there are potential benefits, even if the approach is applied selectively with a subset of support IT staff aligned with particularly key or sensitive departments.

But it is not just about people, their individual knowledge and how they are deployed. Those supporting the business also need access to the right information.

Knowing Your Installed Base

Technology advances in some areas and commoditisation in others, has led to a general proliferation in the number and type of components that need to be tracked, managed and supported – servers, desktop PCs, notebook computers, printers, switches, routers – not to mention PDAs, wireless access points and other emerging mobile and wireless technologies. Layered on top of this is the myriad of software applications which need to coexist on a variety of machine specifications, including applications and equipment acquired independently of the IT department.

The challenges in this area are fully discussed in a research note published in June 2006 entitled "*Hardware and Software Auditing*", which may be downloaded from the Freeform Dynamics website (www.freeformdynamics.com). One of the most important research findings discussed in this is the relationship between knowledge of installed hardware and software, and the effectiveness of IT support delivery assessed in terms of end user satisfaction using our familiar perception scale (Figure 5).

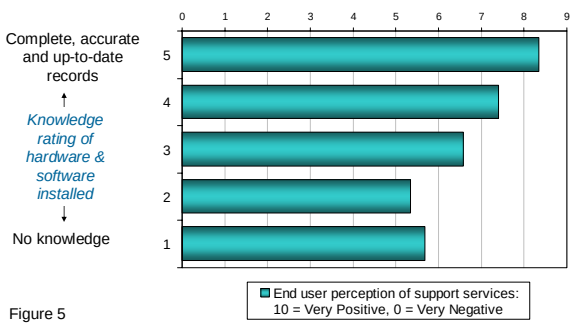

Figure 5

The ability for the IT department to both prevent and solve issues arising from the use of IT is greatly enhanced if reliable knowledge of installed equipment and software is available.

This relationship arises because the ability for the IT department to both prevent and solve issues arising from the use of IT is greatly enhanced if reliable knowledge of installed equipment and software is available in a configuration management database (CMDB) of some kind.

Knowing what is in use and how it is configured, for example, allows potential compatibility problems and dependencies to be taken into account when planning the rollout of new or enhanced facilities. In the context of technical support, having accurate records of PC, server and network configuration at hand can streamline the troubleshooting process and avoid the user being bombarded with technical questions they don't understand or see the relevance of.

If all additions, moves and changes concerned with IT assets were controlled by the IT department, keeping such records up to date may be something that could be incorporated into various change management processes. The reality is, however, that software and equipment are often introduced

into the organisation independently of IT by both business units and individual users. Users also increasingly consider it their right to make changes thereafter, something which is difficult or impossible to control.

The end result is that it is only possible to maintain accurate and up to date records through periodic auditing and, not surprisingly, the frequency with which audits are conducted has a direct impact on the quality of the knowledge base available (Figure 6).

Relationship between frequency of audit and completeness/accuracy of knowledge of hardware and software in use

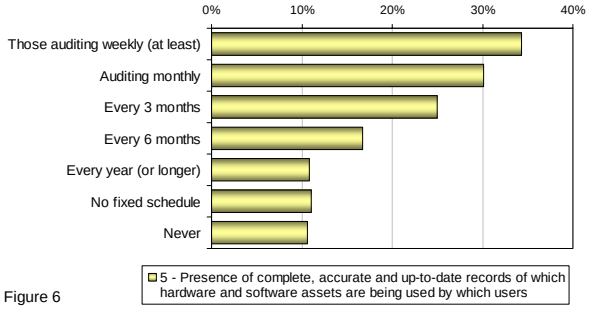

Figure 6

It is only possible to maintain accurate and up to date records through periodic auditing and, not surprisingly, the frequency with which audits are conducted has a direct impact on the quality of the knowledge base available.

When we look at the frequency with which auditing of IT assets takes place in practice, however, we find a great deal of variability, ranging from weekly or more frequent audits in some cases, right up to yearly or less frequently in others. Furthermore, over a third of organisations have no real audit schedule in place and about one in ten companies never audit their IT assets at all (Figure 7).

How often do you perform hardware and/or software audits?

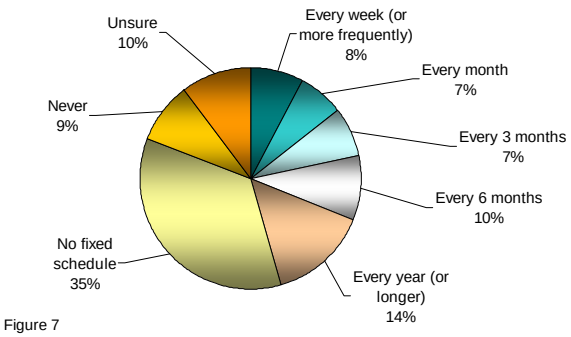

Figure 7

It is clear that an opportunity exists within most organisations to drive significant improvements in both efficiency and effectiveness of IT service delivery by paying more attention to asset management.

Having seen that IT support effectiveness is dependent on a good knowledge of the installed base, and the latter is, in turn, dependent on the frequency of audits, there is clearly an opportunity to drive significant improvements in IT service delivery within most organisations by paying more attention to this area.

However, auditing IT assets manually is an extremely resource intensive process, which inherently limits the frequency with which audits can take place within organisations relying on this approach. Automation is the obvious answer as systems exist today that can automatically discover and interrogate components on the network, either on demand, according to pre-defined events (e.g. network logon) and/or in line with a fixed schedule. This brings us onto the topic of the role of technology in IT support delivery in general.

The Role of Technology

Many solutions exist on the market to help with the delivery of IT support. These range from asset management and auditing systems which can help to maintain the knowledge of installed components that we saw was so important in the previous discussion, through to help desk systems which assist support staff in registering, tracking and progressing cases. It is not the intention of this report to go into the details of specific applications and functionality, but it is interesting to look at the degree to which some key IT support functions are automated (Figure 8).

How are the following functions enabled and/or automated from a systems perspective?

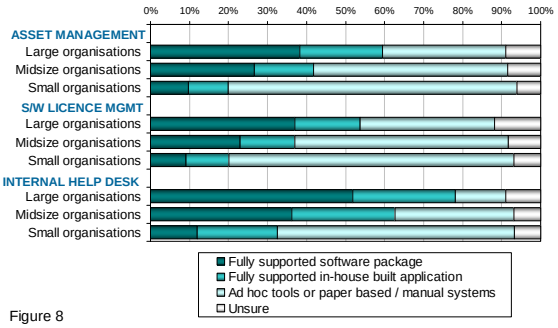

Figure 8

The general level of automation varies significantly by organisation size, with larger companies much more likely to be using fully supported software packages.

The general level of automation varies significantly by organisation size, with larger companies much more likely to be using fully supported software packages. This is not surprising as the greater the scale and complexity, the more apparent the need for automation in the IT support function.

Regardless of the degree of automation, however, the important question is whether the support systems in place are fit for purpose. If an organisation invested in a support package a number of years ago, for example, that does not necessarily mean they are well catered for. IT support systems, like most other areas of technology, have moved on significantly, particularly in areas such as asset management. It is also the case that many solutions only deal with part of the IT support requirement, so gaps in functionality can also be an issue.

When we pull these considerations together, we find that only one in five say their support systems do everything they need, over half say improvements would be desirable in at least some areas and nearly a quarter have a more pressing requirement because their systems are either struggling or despite there being a need are absent completely (Figure 9).

Which of the following statements best sums up the state of your IT support systems?

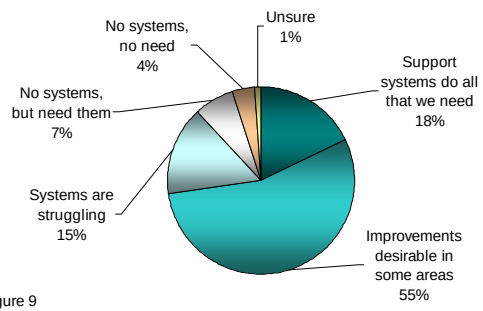

Figure 9

Only one in five say their support systems do everything they need, over half say improvements would be desirable in at least some areas and nearly a quarter have a more pressing requirement.

But how much does this matter? Well, the answer becomes clear when we correlate the state of support systems with perceived levels of end user satisfaction (Figure 10).

Impact of systems fitness for purpose on end user perceptions of support

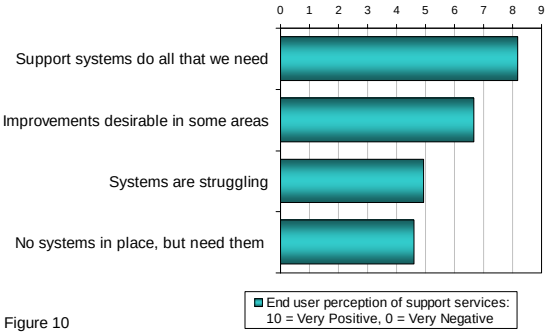

Figure 10

Business executives should listen carefully when investments are suggested in IT support systems, particularly if users are demanding an improved level of service.

This chart speaks for itself. The implication is that the majority who fall into the "Improvements desirable in some areas" category could achieve an average boost in effectiveness of over 20% with some additional investment in systems. Those who say they need solutions, either because their existing systems are struggling or they have no real systems in place at the moment, are looking at a potential 65-70% improvement in effectiveness on average.

While not a business case *per se*, these findings underline the significant impact technology can have on IT support performance, and why business executives should listen carefully when IT management suggests investments in this area, particularly if users are demanding an improved level of service. This logic is reinforced when we see how the level of service delivered also correlates to the priority given by senior management to investment in IT support systems (Figure 11).

Correlation between user satisfaction and priority given to investment in support systems

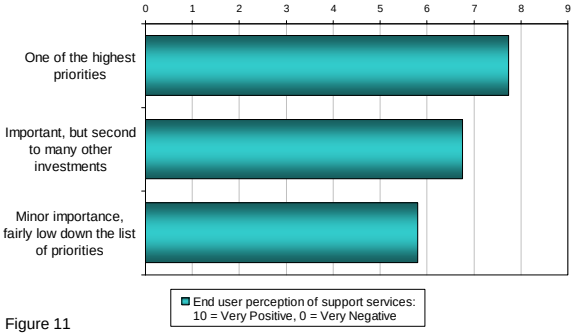

Figure 11

There is a direct correlation between the priority given to investment in support systems by senior management and the effectiveness of IT support.

Whichever way we look at the statistics, it is clear that the quality and completeness of an organisation's support systems has a direct bearing on end user satisfaction.

So far, then, we have seen that people, information and technology are important drivers of IT support effectiveness. But what about process?

Impact of Industry Best Practices

Another factor which can impact the level of service delivered is the effectiveness of support processes. Some organisations, for example, have very rigorously defined procedures laid down in accordance with industry best practices such as ITIL, COBIT or various ISO standards, while those at the other end of the spectrum work on an ad hoc basis or in accordance with their own in-house standards. In between, there are those who take notice of industry best practices, but just extract the ideas they feel are relevant to them.

The level of industry best practices adoption is another factor that varies considerably by organisation size, with much higher levels of commitment being seen in the large enterprise space compared to smaller organisations (Figure 12).

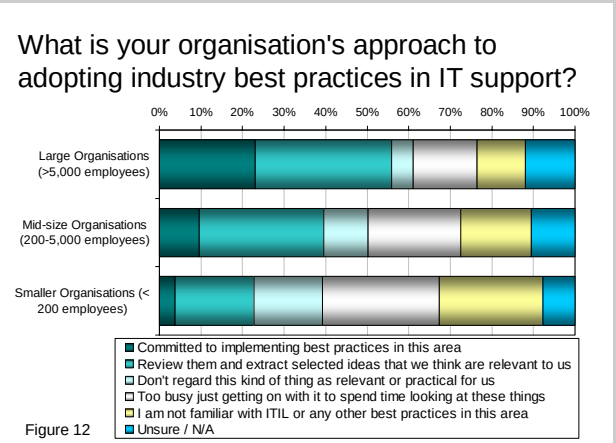

Figure 12

The level of industry best practices adoption is another factor that varies considerably by organisation size.

In large and mid-size organisations where adoption rates are higher, it is possible to analyse the impact of best practice related activity on end user satisfaction. When we do this for large enterprises, it is clear that results are driven by the level of commitment. Big companies adopting best practices fully have an end user satisfaction rating 37% higher than those at the other extreme, while those that review best practices and select just the ideas they consider relevant see around half of this benefit on average (Figure 13).

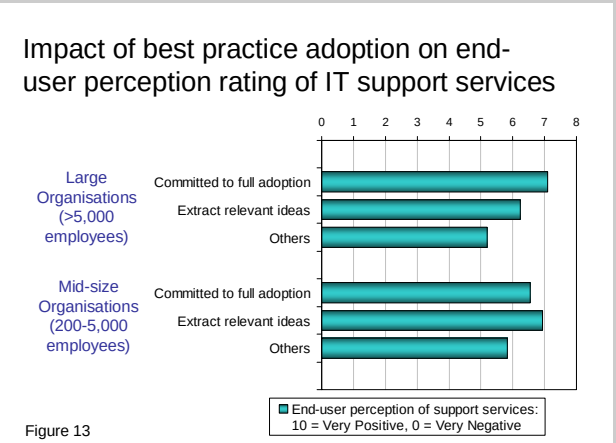

Figure 13

The potential benefit of full best practice adoption is clear for larger organisations, but midsize organisations seem to fare better if they simply review best practices and extract relevant ideas.

We can also see from this picture, however, that the situation is far less clear-cut with midsize organisations who seem to fare better if they simply review best practices and extract relevant ideas rather than committing to full adoption. The most likely explanation for this is that full adoption at this

mid-size level can actually lead to a net increase in complexity and overhead, with a tendency for the support function to become process bound.

With respect to smaller organisations (less than 200 employees), commitment to best practice adoption is very low, as implementation is generally prohibitively expensive from both the cost and resource availability point of view. Indeed, anecdotal feedback from respondents confirms the biggest barrier to adoption is finding the time and resource to implement (Figure 14).

Challenges for smaller organisations when considering the implementation of industry best practices

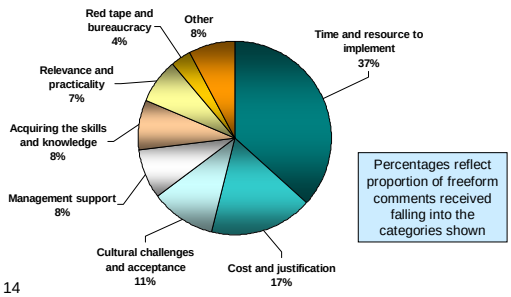

Figure 14

Commitment to best practice adoption is very low in smaller organisations, as implementation is generally prohibitively expensive from both the cost and the resource availability point of view.

The overriding lesson is that it is certainly of benefit for large organisations to consider the adoption of industry best practices, but midsize and smaller companies should think very carefully before committing to guidelines that may not have been designed with their scale of operation in mind.

Findings in this area are explored more fully in our research note published in June 2006 entitled *"Industry Best Practices for IT Support"*, which is available from www.freeformdynamics.com.

Beyond the Statistics

When looking at statistics, charts, and index scores as we have been doing, it is easy to forget that we are dealing with real people, real businesses and real challenges. During the study, we received a great number of freeform comments, within which respondents were permitted to express themselves freely. Through such comments, we are able to identify the most common wishes or complaints heard from users in relation to IT support.

The most common type of complaint is to do with delays, starting with initial response times, e.g.

> *"Time for Service Desk to answer the phone".*
>
> *"Time to respond with an adequately skilled person".*

There is then frustration with the amount of time it takes to actually resolve the problem:

> *"Length of time to resolve issues".*
>
> *"The speed of getting a satisfactory conclusion to a problem".*

Related to the time element is the commonly referred to lack of understanding between users and IT staff with regard to importance and prioritisation of tasks and issues. These two comments illustrate the problem from both sides of the fence:

> *End User: "Lack of understanding of the urgency of issues by support staff.... too often saying 'we'll get back to you some time later'".*
>
> *Support Manager: "Most users complain too much, but the areas where I would agree with them is probably in terms of response time. This is due to their lack of understanding our priorities - especially when they think they should be top of the pile".*

Perhaps one of the biggest frustrations other than resolution times is the problem of the support "black hole", i.e. users feeling they are not kept informed of progress once a case has been created:

"Better communication on the progress of IT support jobs".

"Lack of feedback/inability to track requests".

"A case being closed when the problem has not been fixed".

When a dialogue is taking place, IT staff sometimes find it a challenge to pitch the communication at the right level:

"Fine line between enough information and scary technical details".

"Simplify the language we use, but don't talk down to end users".

Overall, analysis of almost 1,600 freeform comments on areas for improvement tells us that the top three items in order of importance on the user wish list are as follows:

TOP 3 USER WISHES IN RELATION TO IT SUPPORT

1. Faster initial response times; getting to the right person more quickly
2. Faster resolution times, i.e. actually solving the problem more quickly
3. More empathy and clearer communication by IT support staff

The first two underline the importance of IT support at a business performance level. All of the time spent by users chasing and waiting on IT to get them properly up and running again is time they are not spending contributing to the business. The third item on the wish list reinforces the value of a more rounded IT staff experience and better relationships as discussed earlier.

Something that really focuses the mind, however, is the last finding we will present from the study which suggests that the farther you are removed from the sharp end of the support process, the less you are aware of any shortcomings that may exist (Figure 15).

Variation in the perception rating of IT support services by type of respondent

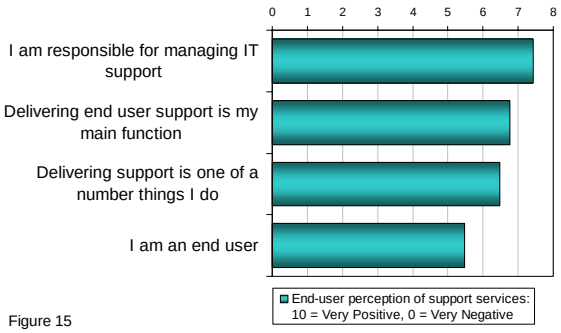

Figure 15

The farther you are removed from the sharp end of the support process, the less you are aware of any shortcomings that may exist.

We can also conclude from this chart that those responsible for delivering IT support often over-estimate how well they are doing, which emphasises the need for a collaborative approach to identifying and prioritising actions when formulating an improvement initiative. Such initiatives are less likely to be effective if they take place purely within the IT department.

Discussion and Conclusions

IT departments have an extremely challenging job to do when it comes to delivering effective IT support, and while there is often room for improvement, it is encouraging that on average, the end user experience is reported to be net positive by those participating in our study.

The research has demonstrated conclusively, however, that effectiveness of support is sensitive to the following factors:

- The way in which the IT support function is organised and resourced
- The IT department's knowledge of which hardware and software is installed and being used
- The fitness for purpose of support systems and tools

The first of these is particularly relevant to larger organisations, which tend to suffer more from the disjoint between support staff and business users that is a by-product of centralisation and optimisation for efficiency purposes. This in turn leads to the commonly encountered lack of empathy and understanding we see expressed in some of the anecdotal feedback, which is further underlined by the challenges we have seen in relation to outsourced IT support. There is no magic solution here but careful consideration of the options for better aligning support staff with business units should be part of any improvement programme.

The other sensitivity factors take us into the area of support systems, whether in the form of software to automate or track help desk activities, or solutions to deal with hardware and software asset management. Those organisations with older or incomplete systems clearly have the potential to drive significant increases in performance from incremental investment in these areas.

Of course the data presented in this report only provides a high level indication of impact, but it should be enough to make the case for a more detailed appraisal in the context of a specific business environment if the kinds of improvements in performance we have seen look attractive to the business.

Over-arching this whole discussion is the role of industry best practices such as ITIL, COBIT and the various ISO equivalents. These can in theory be used to create a framework within which improvements such as those suggested above and others may be implemented, thereafter providing a robust set of operational processes to deliver support services optimally on an ongoing basis. Software vendors and consulting firms in particular are advocating best practices and incorporating them into their solutions and services.

The evidence from our study confirms that there is, indeed, benefit to be gained from best practice adoption by large organisations. As we have seen, though, smaller companies need to be wary of becoming "process bound", and in any case are likely to struggle finding the time and resource to handle a full blown best practice implementation. The general advice here is to review what best practices have to offer, but unless forced by regulation, assess the cost benefit of implementing each element carefully before committing. Full implementation will undoubtedly make sense in some environments, but selective adoption of best practice ideas will be adequate for others to achieve while avoiding unnecessary cost or counter-productive overhead.

There are other factors in addition to the above which may also have a positive impact within an IT support improvement programme. With the growing popularity of Web based employee portals, possibilities have opened up to deliver elements of IT support on a self-service basis. Looking upstream in the solution rollout lifecycle can also help, e.g. making sure development and operations staff consider the support implications of new systems, upgrades and so on and coordinate properly with support staff to head off potential issues before they become real. This happens quite naturally in smaller organisations where the same team is often taking care of the multiple dimensions of IT service delivery, but larger organisations need to be more proactive about implementing IT service management holistically.

The bottom line is that effective delivery of IT support is a business issue that business management must take seriously if they are not doing so already. As organisations look to drive improvements in this area, we hope the information in this report will help to align business and IT priorities more effectively.

APPENDIX A

Sample Composition

Sample by Geography

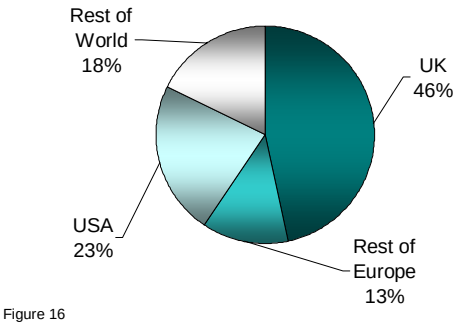

Figure 16

The study was executed online in English. The majority of respondents were therefore from the UK and USA, with "flavour" of opinion from other geographies.

Sample by Organisation Size

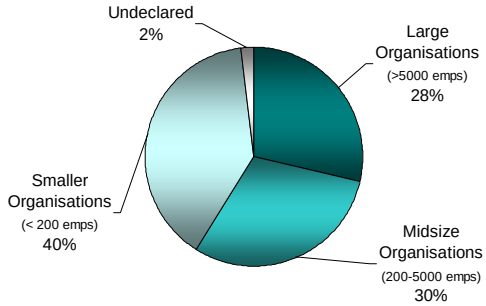

Figure 17

Organisations of all sizes are represented in the sample.

The research was completed in June 2006 and a total of 2,630 responses were gathered from IT and business professionals representing a good cross section of industry sectors.

Acknowledgements

Our thanks go to all those who participated in the study, whose feedback has been invaluable in providing insights into the practicalities and opportunities in this interesting and complex area.

About Freeform Dynamics

Freeform Dynamics is a research and analysis firm. We track and report on the business impact of developments in the IT and communications sectors.

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