

Productivity or Pain

Measuring the value of mobile investment

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Time pressures on businesses and employees continue to mount. Increasing regulation, traveling and resource limitations compel many to work longer hours. For many roles, productivity is difficult to measure, so improvements might not be as simple as making a greater number of appointments, but making more beneficial decisions. A better understanding of whether productivity has been improved might be gained from assessing whether an individual employee has more control over managing their time, or if wasted gaps can be filled with useful activity. Technology can rarely increase productivity by itself, but gives the individual employee the means to increase it themselves, if they are sufficiently committed and willing to do so.

KEY FINDINGS

- **White collar mobile application deployment leads blue collar, moving beyond simply mobile email**
Almost 80% of enterprises are deploying mobile productivity applications for professional or white collar employees, and less than half are doing so for blue collar workers. Of those deploying to professionals however only a third are limited to mobile email, the remainder a mix of applications including mobile email.
- **Formal measurement of productivity gains prevail – smaller enterprises lead the way**
Over 50% of companies are using a formal process to measure productivity rather than ad hoc or informal checking. This is more prevalent in smaller enterprises, where the impact of a bad decision is more noticeable in the business. Smaller enterprises are also more cautious of the value of mobile data access, but almost 90% believe it adds to some extent to improvements in employee productivity.
- **Productivity comes from users taking control, but they can be distracted**
Over three quarters of enterprises believe that employee control of their own time is beneficial to their personal productivity, but a similar number admit that distractions caused by employees fiddling with their mobile device reduces this benefit. There is also the danger that employees resent having to take work home with them as they already believe they are working longer hours.
- **Users are not sufficiently involved in the process of selecting mobile solutions, which is still too IT led**
Despite the high level of importance of user acceptance in wireless remote access projects, over 80% of enterprises are not influenced by end users when selecting specific solutions or products, such as applications or handsets. Line of business and facilities or operations management have significant secondary influence, but the primary influence is first with board level, then IT management.
- **The business would welcome wider mobile deployment, but IT management is less sure**
The challenges of wider deployment are often first felt by those having to provide support and management, IT managers are marginally less confident than business management about the level of improvement coming from giving more employees wireless or remote access. Almost a quarter of business managers believe a great deal is there to be gained, despite concerns noted above.

RESEARCH NOTE:

The primary research data upon which this report is based was derived from an independent study conducted by Quocirca sponsored by T-Mobile. This involved 150 interviews of senior business and IT management from a broad cross section of industries in the UK. Respondents were divided evenly from among small (200-1,000 employees), medium (1,000-10,000) and large (10,000 and above) enterprises. Other sources of data are highlighted where they are used.

We would like to thank T-Mobile and the interviewees who contributed their valuable time.

Introduction

Measuring the value of any investment at a given point in time is always difficult. Knowing what to measure is even harder. In theory it is a simple equation for any business – return over cost – but not all costs or returns are easy to quantify. The tangible gains may be elusive, and there are rarely any rigorous frameworks for measuring intangible benefits, such as boosted employee morale, external goodwill, brand value or even customer satisfaction.

Technology benefits often fall into the category of difficult to measure, but the costs of hardware, software and services are often of such a magnitude that the benefits need to be tangible to justify the cost.

This report looks at the value of wireless or remote access in improving productivity for small, medium and large enterprises. As background to this, 150 UK based business and IT managers were interviewed.

The report examines the productivity challenges of mobile technology, and is intended to be read by those with responsibility for sourcing mobile technologies and dealing with mobile suppliers. It offers them a peer review and information for their internal discussions and negotiations with suppliers.

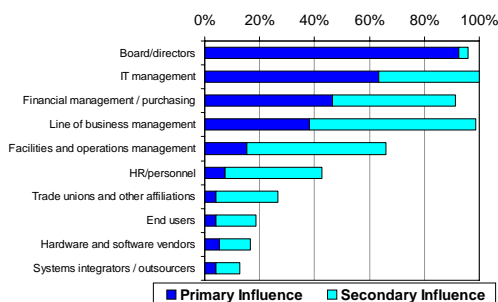
1 Who gets what?

When technology is applied to any job function, it inevitably changes the business processes and working practices, both of individuals and the wider organisation. So increases in personal productivity are heavily affected by the degree of end-user buy-in.

Fundamental to end-user buy-in is their involvement in the selection process. While many users do not care what IT hardware and services they are offered as long as they work, wireless and remote access is somehow more personal. Mobile devices, from laptops to the BlackBerry, make a style statement about the individual. When applications are being used in remote locations, while travelling or at home, user understanding and acceptance of what they have to use rises in importance.

Despite this, device selection rarely involves users or trade union representatives or other affiliations, but is led from the board level or IT management (Figure 1).

Figure 1
Who would be influential when selecting specific products or solutions for wireless remote access (e.g. applications, handsets)?



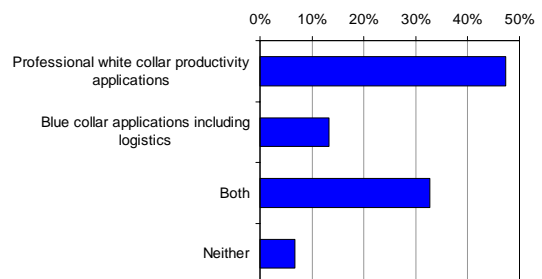
While this allows sound investment and technology decisions to be made, it does little to ensure that the broader issues affecting productivity are tackled. User resentment at what might be seen as intrusive will blunt any apparent gains from

the technology, but their involvement must be tempered with the reality of providing a practical solution.

Different types of applications lead different categories of users to deal with the issues in different ways. Blue collar applications tend to be supporting well defined business processes, so the effect of productivity gains can be readily measured. However workers in these positions are more likely to belong to unions, so the implementation process needs early involvement of both users and their representatives.

Current mobile application deployment is more oriented towards professional or white collar support, and the technology needs commitment and exploitation by the individual in order to make productivity improvements (Figure 2). To balance end-user and business needs, opt for an approach piloting several devices in parallel. This allows some choice and selection based on employee as well as corporate needs, but within a manageable framework.

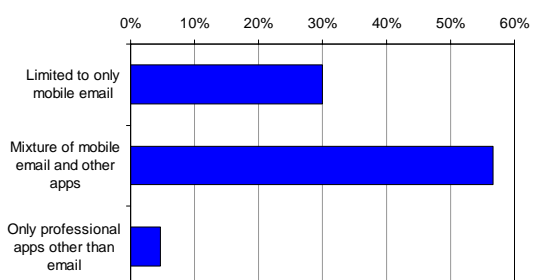
Figure 2
Which of the following mobile applications have been deployed in your organisation?



Professional productivity comes from improved response times, and filling gaps with useful activity, but this depends on the individual and their time management. For some, the technology will not make the difference intended, if bad habits prevail.

Much of the professional deployment of applications on handhelds revolves around mobile email, but other applications are becoming important. Email adds value quickly because it is easy to present on a small screen, and a simple alert to generate a response is often all that is required (Figure 3).

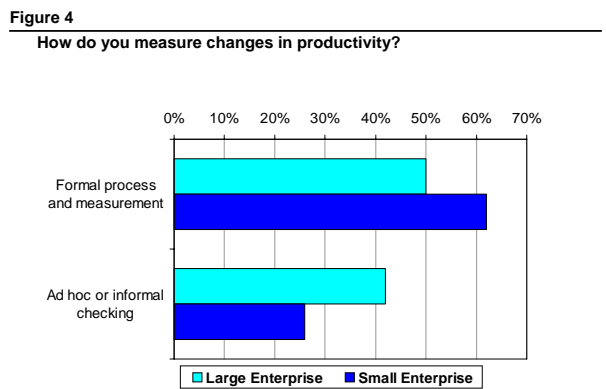
Figure 3
For those deploying professional/white collar applications on handheld mobile devices, not laptop – what are the applications?



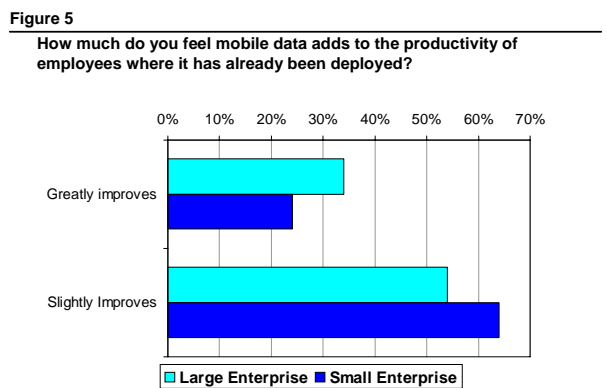
It is also simpler to integrate handheld mobile devices into the email application architecture, whereas to do justice to mainstream commercial business applications generally requires greater integration effort. That said, it is the natural next step to allow enterprises to liberate the assets held in the IT systems to their employees while on the move, and the numbers indicate widespread interest.

2 Measuring Productivity

Most companies have some form of process to measure changes in productivity, and more often this is a formal process. Perhaps surprisingly it is the smaller enterprises that are more likely to put formal measurement in place, but the more intense nature of business in smaller companies allows them less leeway to make mistakes or waste effort (Figure 4). Of the three categories used in the research, the results for medium sized companies, which fall between large and small, have been left off for clarity.



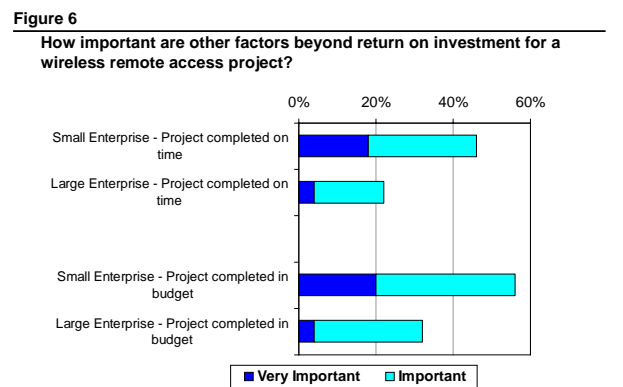
Since most companies are measuring productivity gains in some way, it is interesting to see that most feel that the productivity of employees is being enhanced by mobile data, with only a few noticing no difference (Figure 5). This is unlikely to take into account the harder to measure or intangible benefits, so the actual benefits across the business may be larger than recognised.



The impact in terms of cost and business change will probably also be greater than expected, and uncertainty is something that smaller companies in particular must avoid as they have less spare capacity or ability to make contingency funds available.

Larger companies also suffer from attempting larger projects, not only due to their size, but by extending the scope to bring in other departments or extra functions. This scope creep is often compounded by staff changes, leading to projects running over time and budget. A better approach is to focus down on a tight set of requirements and an incremental approach based on completing implementations in stages.

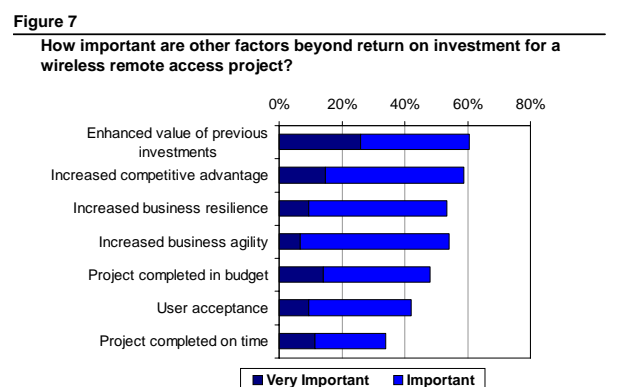
Time is money, and this increases the focus on projects completing on time and in budget for many smaller enterprises, but surprisingly most companies place less priority on these aspects than others (Figures 6 and 7). Cost and time constraints drive the thinking of those in smaller companies investing in new ideas, and are an example of good practice for those in larger companies.



Most companies overestimate the value short term changes, but underestimate the longer term impact. This makes it even more important to apply rigorous project management even on pilot projects if the direct financial value is not to be squandered.

3 Broader Benefits

There are other benefits that motivate companies to embark on wireless remote access projects beyond the immediate financial ones. Many look to the future to be more flexible, resilient and competitive, but even more look to unlock the value of past investments (Figure 7).

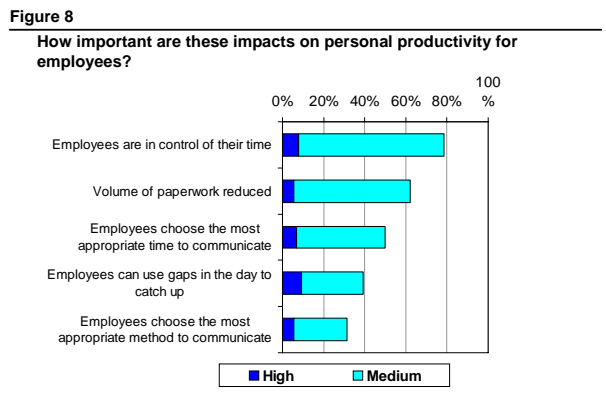


It is important to attach some value to this, when justifying future wireless remote access projects, but only if the past investments were for systems that have real value in themselves, and can usefully be extending for remote access.

Why have databases of vital customer relationship information if a sales person cannot confirm an order status when in front of a client? Why have real time inventory management if an on-site engineer cannot find out if a part is in stock and have it shipped to site?

In many circumstances these investments will have been large, with projects conducted over many months, and perhaps by different managers. Acknowledging that a further step must be taken to unlock their potential is a challenge and will need wider support than just the IT function, involving line of business managers, personnel and unions to look at the impact on the employee and how this will be managed.

All but the very smallest organisations need structured processes and procedures to document, manage and comply with industry, national and international regulations. This always imposes time constraints and time consuming bureaucracy for a company to deal with. When a company streamlines there is often more onus on individual employees, so time management and volume of paperwork have a direct impact on personal productivity (Figure 8).



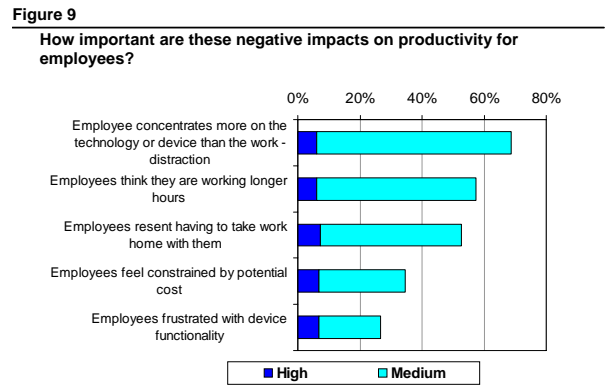
Wireless remote access provides process simplification. Interactions with IT systems can be made at the point when information is collected or known, rather than written down and then keyed into a system at a later date. Field engineers can complete job sheets on site, orders can be entered and checked by a customer, logistics consignments checked and verified on location.

This allows the information to be instantly accessed and acted upon elsewhere, reduces error propagation and the need to supply, manage and shred pieces of paper – a security and compliance issue in many industries.

For some individuals it reduces the tedium of form filling – although some will replace paper forms with those on-screen – and removes the need to collect or deliver paperwork to a depot, office or filing store, getting back some of their time.

However, there are issues with using new technology to increase productivity. Unless working practices are agreed, balancing the needs of the individual with the organisation, many will use the introduction of technology as an opportunity to raise wider grievances.

Something new can be a distraction, especially if the etiquette, best practices or guidelines for use are not adequately communicated. There is also the danger that users who have not been involved in the process will see this as an imposition, compelling them to work longer hours (Figure 9).

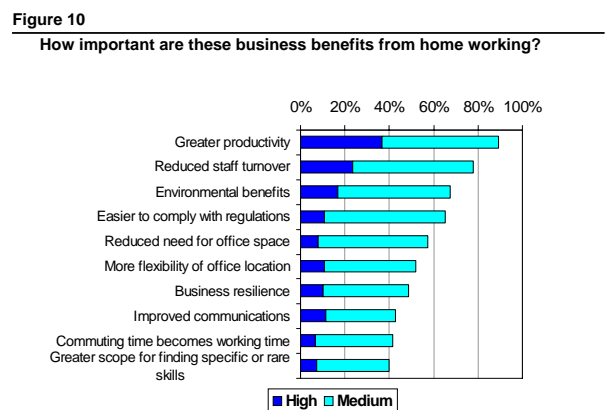


Of course, highly motivated individuals, in jobs they enjoy will relish the ability to use new tools that amplify their efforts, but in order to achieve the productivity benefits, even those at the other end of the motivation spectrum must be encouraged to use the new tools to advantage.

This requires those leading wireless or remote access projects to be thinking of the wider implications to the business – office space, location, changes to established working practices, user acceptance – and involving other groups early to get buy in, and also to understand where further business value lies.

This is particularly true with working from home, where historically there have been management concerns about loss of control, health and safety issues, and employees feeling they have to provide space for an office.

However, if these concerns are addressed early, beyond the effect on productivity, there is more flexibility for those managing the portfolio of business premises, a reduction in staff turnover and environmental benefits in the form of less travel, which also has a positive impact on the employee and the green credentials of the business (Figure 10).



Whilst most organisations will focus on productivity and use this to justify an investment, there is a broader business case that needs to be made to understand the total value proposition. Not all aspects are positive, but only by involving a wider circle in the decision making process can they all be adequately addressed.

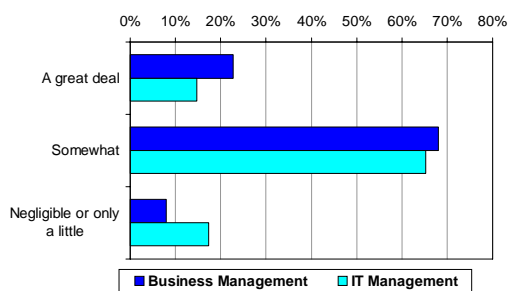
4 Conclusions

Most organisations have already taken some steps to extend access to their IT systems to some employees in flexible or remote locations – the questions are, should they continue to extend this process and how?

Most feel that wider deployment will be of value, and business managers favour this marginally over their IT counterparts (Figure 11). IT managers are no doubt reluctant as they see many of the negative impacts which they can do little about, but for which they are often blamed. Security, generally labelled an IT issue is often the result of lack of care or attention by the user. Projects suffer from scope creep and end up being delayed, this is frustrating for the IT department.

Figure 11

Do you feel much could be gained by wider deployment of wireless remote access?



To really understand the potential productivity gains, a wider view has to be taken, bringing the business needs in line with the IT reality. This has to be pragmatic, assume that external and internal changes will occur during the lifetime of the project, so must try to avoid dramatic changes by building even smaller scale pilots in well-defined stages.

The first stage of this involves identifying not the technology or suppliers, but the individuals and roles where changes may be made to the advantage of both company and employee.

A wireless remote access solution provides not only the means for access but also the functionality which has to be best suited to the user to extend their value to the company. Employees likely to benefit from this approach fall into several categories:

- Static remote workers, who generally remain at a single location for work, but are remote to the central company systems. These include home-workers or tele-workers and perhaps branch workers.
- Roaming users, who either work in an environment where a tethered solution is unsuitable such as warehousing or a shop floor, or where work occurs in multiple locations within a facility, such as in meeting rooms, flexible working or hot-desking.
- Nomads need access in hotel rooms, homes and other environments where modem use has been prevalent, and are now seeing increasing use of wireless technologies and devices.

- Road warriors - the ultimate mobile users – spend little time in the office but require regular access to data and communications while on the move, in transit or in hotels. These include sales people and field engineers, the groups most often referred to and addressed by wireless remote access vendors, but broader benefits are likely to be found in more mundane roles too.

Each will have their own requirements, their own way of working, and their own set of applications necessary to be productive. They will also be part of existing business processes and have working practices which will need to evolve to ensure both they and the organisation they work for gain the maximum benefit.

Only by bringing these wider aspects into the equation can wireless remote access projects really deliver on their productivity promise. The alternative is to endure the pain of projects which inevitably fail and waste the time and resources invested.

4.1 Acknowledgements

This kind of research is crucial to all of us in the business and IT community - suppliers and customer organisations alike. We would therefore like to thank all of those participants who contributed so generously, with patience and good humour, towards a better understanding of issues in this important area, and to the sponsor of the research behind it.

About T-Mobile

T-Mobile International is one of the world's leading companies in mobile communications. By Q3 of 2004, more than 109 million people were using the mobile communications services provided by companies in which T-Mobile or Deutsche Telekom have a majority or minority stake. And all that over a common technology platform based on GSM, the world's most successful digital wireless standard. This also makes T-Mobile the only mobile communications provider with a seamless transatlantic service.

T-Mobile UK, the fastest growing UK network, currently has 16.1 million customers. Its UK network covers over 99% of the UK population and currently offers roaming on 370 networks in 163 countries, including the USA. T-Mobile UK has 1,900 Wi-Fi locations, giving customers the largest UK Wi-Fi network as well as the largest network in Europe and the USA.

For more information about T-Mobile UK, please visit www.t-mobile.co.uk or contact the press office on +44 (0) 70171 50150.

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About Quocirca

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- Business Process Evolution and Enablement
- Enterprise Applications and Integration
- Communications, Collaboration and Mobility
- Infrastructure and IT Systems Management
- Utility Computing and Delivery of IT as a Service
- IT Delivery Channels and Practices
- IT Investment Activity, Behaviour and Planning

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca's mission is to help its customers improve their success rate.

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