Supporting Mobile Professionals in Global Banking: The Role of Global ICT-Support Call-Centres

Adel Al-Taitoon & Carsten Sørensen
Department of Information Systems
London School of Economics and Political Science
Houghton Street, London WC2A 2AE, United Kingdom
Pho: +44 (0) 20 7955 7655
Fax: +44 (0) 20 7955 7385
{a.k.al-taitoon; c.sorensen}@lse.ac.uk
http://mobility.is.lse.ac.uk/

Abstract

The aim of this paper is to address the role of ICT-support call-centres in supporting mobile professionals. In global organisations, mobile professionals require constant and continuous access to information services. In modern global banking firms, ICTs are intensively utilised for electronic transactional processing and in supporting banking professionals in accomplishing their global tasks across geographical locations and time zones. The use of ICTs by global mobile bankers is crucial to access real-time information, anytime and anywhere. In their remote mobility, banking professionals may experience technology failure or difficulties in accessing information services. This inability of the banking mobile professionals in utilising ICTs could have serious consequences in terms of risk on the bank operations and profit. The ICT-support call-centres play major roles in supporting the mobile user. This paper discusses how a global help desk unit accomplishes this role in a global banking organisation. This is achieved through analysis of the call tickets from the global helpdesk tracking system.

1. Introduction

Information and Communication Technology (ICT) departments in modern organisations are struggling to keep up with the demand for computing, rapid technology changes and the fundamental transformation of work (Leithelser and Wethrbe, 1986). Moreover, ICT support specialists and experts have been further challenged with the shift from the traditional functional hierarchy of the Industrialised Society with highly functionally divided labour supported by centralised mainframes towards the flat, networked, organisation of the Knowledge, Information or Service Economy applying highly flexible, and possibly wireless, information infrastructures supporting knowledge work. In their book The Support Economy, Zuboff and Maxmin (2002) addressed the challenges for efficient production of goods and services. These challenges should be definitely addressed in this age of mobile ICTs. For instance, over the last decade, we have witnessed a large diffusion of mobile ICTs such as laptops, mobile phones, personal digital assistants, and tablet-PCs, together with a rapidly emerging mobile information and interaction services (e.g. emails, instant messaging, wireless applications, and location-based services) which have further transformed the work of mobile professionals (Sørensen et al, 2002). This widespread diffusion of mobile computing devices and services creates added complexities for the computer services support staff in their day-to-day work in supporting mobile professionals.

In global organisations, where professionals require constant and timely access to global information for making decisions (Kumar and Palvia, 2001), the effectiveness of ICT support process becomes significantly important to ensure availability of global
information services for mobile professionals. In modern global banking, for instance, the ongoing improvements of information processing, telecommunication, and financial technologies have enabled global banking professionals to access digitally represented products, process electronic transactions, administer larger information flows from different locations and manage risk at lower cost (Scott and Barrett, 2002; Berger et al., 2003). The use of ICTs by global mobile bankers is crucial to access information on a real time basis anytime and anywhere. Technology could fail and the users may experience difficulties. In the financial industry, particularly in banking organisations, this failure of technology or inability of users to access information services could lead to serious consequences in terms of loses and impacts on the bank’s business. The ICT-support call-centres, therefore, have strategic roles to play in supporting the remote mobility of banking professionals and in enabling global banking organisations to manage the complex implications of their globalisation strategy within the highly competitive global financial industry.

Academics and practitioners have discussed the roles of ICT-support call-centres (e.g. Leithelser and Wethrbe, 1986; Pitt et al., 1995; Kettenger and Lee, 1997). This paper aims at addressing the crucial role of the ICT-support call-centre in supporting mobile professionals in global banking. The paper adopts a case study approach to discuss how a 24x7 Global Help Desk (GHD) accomplishes this role in a global banking organisation. This is achieved through analysis of calls-tracking tickets created in a web-enabled Global Help Desk System (web-based application), which is used for managing all end-users’ requests, and facilitates multi-branches global support process. The tickets are created by the GHD analysts as a result of calls that are made be any mobile professionals who work for this global bank. The ticket includes details of the problem and of the solution provided. The tracking-tickets analysis is complemented with ethnographic-based participative observation by the first authors who also work as the head of the global help desk and report to the Chief Information Officer (CIO) in this global banking organisation.

In the following section we briefly outline the research methodology. Section 3 discussed related research on mobile professionals and on ICT support centres. Section 4 outlines the institutional context of the global help desk within the bank. Section 5 presents the empirical results of analysing the support tickets and classifies these according to the three stages of pre-, in- and post-mobility. Section 6 concludes the paper.

2. Research Approach

This paper reports on the initial empirical findings from analysing requests from mobile professionals for help to a global help desk of a global bank. The primary method applied has been the analysis of global help desk tickets each reflecting a request reported to the help desk by mobile professionals. The global help desk system had more than 21,000 tickets covering users’ requests on different ICT services related to client’s technologies, server’s technologies, standard applications, banking systems, and users’ interaction services. Although 24% of the GHD tickets involved supporting users of mobile client devices such as notebooks, mobile phones, PDAs, and TabletPCs, only 1000 support tickets were selected and analysed since the analysis focused on remote mobility support requests. Content analysis was used in order to understand the categories reflected in the support request tickets (Bauer and Gaskell 2000; Silverman, 2001). In addition to the analysis of the support tickets directly, the fist author of this paper engaged in participant observation and reflection-in-action (Schön, 1983) through his day-to-day role as head of the global help desk reporting to the Chief Information Officer (CIO). Barley and Kunda (2001) advocate that observation-based techniques provide credible sources of information on what people actually do or how they do it for acquiring detailed, contextually sensitive data on work practices. This technique can reveal the significant and important meanings of professionals’ everyday work practices (see Rabinow, 1986).

3. ICT Support Call-Centres for Mobile Professionals

Modern organisations have been extending their information services and systems to reach out remote sites and mobile workers to sustain competitiveness and address the challenges of the contemporary global economy (Kellner, 1997; Sørensen and Kakihara, 2001; Avergerou, 2002). The huge growth in laptop computing, personal digital assistants, mobile phones services, wireless technologies, and wide range of mobile ICTs has prompted many organisations to address the needs for managing and supporting this form of extended enterprise (Jarvenpaa, 1994; Sørensen et al., 2002; Al-Taitoon et al., 2003). The increasing use of web-based services has further
accelerated the global transformations of organisation (Castells, 2001). Many have started to argue that these extended organisations of remotely mobile knowledge workers and executives are destined to become the norm, rather than the exception (Kristoffersen and Ljungberg, 2000; Kakihara et al., 2002; Kakihara and Sørensen, 2002b). The workplace is changing forever and millions of employees around the world work regularly outside the geographical boundaries of the enterprise. This army of location-flexible and nomadic knowledge workers require ICT-supports that enable them to overcome technical problems and difficulties they experience. That creates a challenge for ICT departments and their call-centres in satisfying the enterprise employees (i.e. end users).

In measuring ICT service quality, it has been that reported that one of the most important factors in ICT service-quality is the match between users’ expectations and the ICT-support (Conrath and Mignen, 1990). For mobile professionals - the temporal, spatial, and contextual barriers (see Kakihara and Sørensen, 2002a) associated with mobility work increase the complexity of matching mobile users’ expectations to the ICT support efforts. User-satisfaction can be achieved when users’ expectations in terms of response time, problem resolution and the way the ICT support analyst manage his communications and interactions with the end-user (Pitt et al., 1995). Some studies on service-level-agreements suggested that end-users can be self-supported when some factors are available such end users willing for technology learning, needs to gain control, desire for flexibility, and opportunity to reduce cost (Leithelser and Wethrbe, 1986). Although some mobile professionals may develop the skills for self-support and technical problem solving capabilities, the rapid and continued growth in mobile computing creates the need for consulting the ICT experts such as call-centres support analysts. This model of call-centres and help-desk support units have been adopted by many organisations to meet their service-level-agreements requirements, ensure availability of ICTs to end-users, and manage the risks that could result from technology failure or users’ inability to use information services.

Some researchers in the field of ICT service-quality have argued that the dimensions of measuring the quality of ICT service should be: (1) Tangibles such facilities, equipment, and personnel appearance; (2) Reliability in terms of ability to perform the promised service dependently and accurately; (3) Responsiveness in terms of willingness to help end users and provide prompt service, (4) Assurance represented in knowledge and courtesy of employees and their ability to inspire trust and confidence; and (5) Empathy such as caring and the individualised attention the service provider gives to the end users (e.g. Berry et al., 1994; Kettinger and Lee, 1997). Pitt et al. (1995) argued that measuring the difference or gap between the perceived service quality and the expected service quality suggesting that this gap can be considered as the service quality formula captures the service quality for each dimension. Although it can be argued that the call-centres’ analysts in their support to the remote-mobile professionals can consider measuring the dimensions of perceived quality, the process of measuring service-quality for mobile users might not be an easy task since further complexities are associated with each one of the five dimensions. For remote-mobile users, the tangibles dimension, for example, is more complex to measure compared to local-office users, as it could be represented not only in the quality of mobile computing devices and services (e.g. specification, features, setup, etc), but also how the ICT-support analysts appears to the mobile professionals through their mobile interactions. Similarly, the reliability factor is difficult to measure, as the ability to perform the promised service does not only depend on the analysts but also on the mobile professional’s learning capability. Willingness to remotely follow support analyst guiding instructions remotely is also a critical factor. The assurance in terms of knowledge and ability to inspire trust and confidence as well as the empathy in terms of caring and individualised attention might be highly influenced by the effectiveness of communication between the support analyst and the mobile user. Users’ expressions of what they want are revealed from their expectations and their perceptions of what they think they are getting (Parasuraman et al., 1988; Zeithaml et al., 1990). The prime determinations of expected services quality are word-of-mouth communications, personal needs, past experiences, and communication by the service provider (Pitt et al., 1995).

4. A Global ICT Support Centre

Global Banking Organisation: The paper adopts a case-study approach using a Global Help Desk (GHD) support unit of a global banking organisation that has its head office in the Middle East and an international network of branches/units worldwide. The organisation is predominately a wholesale bank with some retail banking activities. Its strategy of diversified growth led to the development of its widespread network of branches, representative offices, subsidiaries and
affiliates in over thirty countries around the world, including the most principal international financial centres, e.g., London, Paris, New York, Singapore, Milan, Frankfurt, Sao Paulo, Hong Kong, Cairo, Amman, Bahrain, Madrid, Tunis.

Global Mobile Professionals: The bank adopts a hybrid model of organisational structure in which both hierarchal and matrix structures are integrated. While each branch and unit has a management hierarchy that reflects administrative reporting lines and relationships, the matrix structure is meant to address the functional reporting relationships between the branches and the senior managements in the head office. Executives and senior managers in the head office have global responsibilities. For instance, the CEO acts as the president of bank’s group worldwide. Executives, senior managers (and even middle level managers) in head office departments, e.g. treasury, operations, credit and risk, global information technology, financial control, audit, legal, human resources, premises and engineering, commercial banking, islamic banking, and retail banking, all have global responsibilities and they are expected to travel around these branches to ensure consistency in strategies, plans and practices. Professionals working in profit-making centres (i.e. departments) are expected to travel worldwide to deal with global clients. Professionals working in supporting centres are also expected to travel to manage global suppliers and provide global support to the bank’s units and branches. Due to these global responsibilities, a lot of the bank’s employees are highly mobile. Moreover, many executives and professionals of both profit centres and support centres are expected to access some ICT applications and services from home to manage risk (e.g. market risk, operational risk, etc). To support its global business and the mobility of its professionals, the bank has made large investments to enhance its global technology infrastructure.

Global ICT Infrastructure and Mobile Services: Five years ago, the bank decided to set up a Global Processing Hub (GPH) in its head office, connected through a modern wide area network operative throughout its branches and subsidiaries, to provide the communication infrastructure required to support the new banking systems and to address the needs of its professionals in managing global business. At that time, the bank completed the upgrade of its global telecommunications network to the new global managed data services which connects all wholesale units and disaster recovery centres. This integrated global network infrastructure covers the bank’s branches in eight cities in different geographical areas including Middle East, Europe, North Africa, East Asia, and North America. The new network connects the wholesale units to business applications. It also provides enhanced services such as voice services (allowing quick dial facilities for overseas calls at local rates), global e-mail, global storage for data access, information services and seamless backup capabilities. The bank has also made large investment on mobile ICTs enabling its mobile professionals to access information services whilst on the move. Mobile computing devices such as laptops, mobile phones, PDAs, and TabletPCs are heavily utilised by the bank’s mobile professionals for accessing wide range of information systems and services. Moreover, the bank’s mobile professionals use a virtual private network, Internet roaming services, terminal servers technology and remote access services to connect to different information services and applications using their mobile devices. This networking infrastructure and mobile services are heavily utilised and managed with sophisticated security tools.

Global Support Structure: The global help desk (GHD) acts as a single point of contacts for all end users in the bank. The GHD is a unit in the global information technology department, which includes three other support units: Global application development, global processing hub, and global networking services in addition to its global planning and coordination unit. The GHD provides support on clients’ technologies and resolve problems related to any standard or special banking client application software. The global networking services, provides support on server and communication technologies. The GPH has the responsibility of administrating the bank’s transactional processing and managing the bank’s operational systems. The global application development unit has the responsibility of designing, developing, customizing and supporting business application systems. These are, for example, in-house applications, banking systems interfaces, reports, e-Banking, Web-based Services. Although the support teams are based at the head office, traveling to

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1 Virtual private networks (VPN) enable mobile users of the bank to access email, corporate intranet and different web-enabled banking applications.
2 The internet roaming service enables mobile users of the bank to connect to the Internet with local dialup cost. This service enables the bank’s mobile users to use VPN globally from different geographical areas with reduced connection cost.
3 Terminal servers technology is a server-based computing that allows mobile users to use their client devices to access network resources remotely and it eliminates the needs for installing ICT services or storing data n the local client machines.
branches for project implementation purposes as required, there are only a few support staff in each branch to address day-to-day support requirements. Administratively the local support tem reports to the branch management, but functionally they report to the head office global information technology department.

**Global Support Process:** The GHD provides 24x7 hours ICT-support services. Users report their requests of ICT-support by calling a dedicated telephone number, by emailing the department or by creating a **support request ticket** using the Corporate Intranet which provides a web-based interface to the global help desk management system. A first level support analysts will receive the request and create a ticket for the user’s request in case it is sent by mail or telephone. The ticket will include data fields that provide all necessary details, such as, user name, department, branch, request category, description, priority, service level, and activity log. The analyst will try to support the user through the telephone. If the problem is not resolved through the first level telephone-based support, the analyst will assign the request ticket to a second level support analyst from one of the specialised units depending on the request category. The second level analyst will be notified using automatic email notification and a telephone call by the first line analyst, and short messaging service (SMS) notification is also used for certain problem categories. Using a web-based interface, each support analyst in the head office and other branches can access each ticket assigned to him or her, update it, transfer it to another analysts in his branch or to another branch, and finally close it when all tasks are completed. All analysts are provided with mobile phone and laptops to ensure that they are reachable to provide support outside the regular working hours in case the on-site support analysts require assistance. The first level analyst will monitor the call request tickets’ updates, movements and closure by second level analysts. The head of the global help desk has the responsibility of managing this global support process and escalate to the Chief Information Officer (CIO) any issues that require his attention or senior management actions.

5. Pre-, In- and Post-Mobility Support

Luff and Heath (1998) categorised mobility into three types: micro mobility, local mobility and remote mobility. Micro mobility is the way in which the artefact may be mobilised and manipulated for various purposes around a relatively circumscribed, or “at hand”, domain. Local mobility is more scattered, for instance, walking between rooms, floors and buildings at a local site. Remote mobility is when remote users interact with each other using technology such as the use of mobile ICTs during business trips, client visit or working from home. Analysing the GHD tickets revealed three categories of remote-mobility ICT support tasks; pre-mobility support prior to the mobile professionals leaving; in-mobility tasks generated whilst on the move; and post-mobility tasks emerging upon return. Further analysis of data collected through participant observation has enabled us to capture details and strengthen meanings, which have demonstrated the importance of ICT support to mobile professionals. Figure 1 shows a sample ticket captured from the GHD system.

The one thousand sample tickets have been analysed using Interpretation process. In his book *Interpreting Quantitative Date*, Byrne (2002) advocates that quantitative data should be interpreted to provide the necessary understanding in analysing research results. Table 1 provides eight main categories of requests made by mobile users. The tickets content has been qualitatively interpreted and as a result they have been categorised into three main categories (i.e. Pre-, In- and Post-Mobility Support Tickets).

5.1 Pre-Mobility Support Tasks

Prior to their business trips or leaving office, some of the mobile professionals in the bank have developed a routine and practice of calling GHD to check certain ICT services and ask for any new services that they may need for their mobility work. The GHD analysts perform a service verification process using the client inventory systems that store data about all services used in every single client device. All requests that users report prior to their business trips or leaving office are logged in the GHD tracking system. Around 54% of the analysed tickets are on supporting professionals prior to their remote mobility.

Some of these tickets document the mobile users’ desire for higher access rights privileges on their laptops. The laptops needed to be temporarily configured for accessing some additional local ICT resources during trips to different branches. Considering the banks’ security policy on user access rights, higher access privileges are very restricted. Therefore, for those mobile users, the GHD analysts would configure higher privileges only on local profiles, which should be used in different branches. Close monitoring is performed on these laptops using network monitoring tools in each branch by analysts from the various development units depending on the specific services accessed remotely. This process of
monitoring mobile users is audited annually. Records and monitoring logs are provided to both internal and external auditors.

Table 1: Analysis and Interpretation of 1000 Sample Tickets (Pre-, In- & Post-Mobility)

<table>
<thead>
<tr>
<th>Request Category *</th>
<th>Pre-</th>
<th>In-</th>
<th>Post-</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Client.RemoteDesktop.xxxx</td>
<td>36</td>
<td>49</td>
<td>21</td>
<td>106</td>
<td>11%</td>
</tr>
<tr>
<td>(2) Client.Laptop.xxxx</td>
<td>254</td>
<td>145</td>
<td>46</td>
<td>445</td>
<td>45%</td>
</tr>
<tr>
<td>(3) Client.PocketPC.xxxx</td>
<td>72</td>
<td>43</td>
<td>23</td>
<td>138</td>
<td>14%</td>
</tr>
<tr>
<td>(4) Client.TabletPC.xxxx</td>
<td>21</td>
<td>19</td>
<td>10</td>
<td>50</td>
<td>5%</td>
</tr>
<tr>
<td>(5) Client.ReuterSmartWatch.xxxx</td>
<td>41</td>
<td>21</td>
<td>9</td>
<td>71</td>
<td>7%</td>
</tr>
<tr>
<td>(6) Client.MobilePhone.xxxx</td>
<td>83</td>
<td>9</td>
<td>22</td>
<td>114</td>
<td>10%</td>
</tr>
<tr>
<td>(7) Client.SatellitePhone.xxxx</td>
<td>16</td>
<td>3</td>
<td>2</td>
<td>21</td>
<td>2%</td>
</tr>
<tr>
<td>(8) Client.OtherDevices.xxxx</td>
<td>18</td>
<td>29</td>
<td>8</td>
<td>55</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>541</strong></td>
<td><strong>318</strong></td>
<td><strong>141</strong></td>
<td><strong>1000</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

* Request category [.xxxx] indicates sub-categories of the problem/request (e.g. Client.PocketPC.GPRS, Client.Laptop.VPN, Client.RemoteDesktop.TerminalServices, Client.ReuterSmartWatch.Configuration, etc).
Another group of support tickets reflects that some users, who travel or need to work from home, frequently approached GHD in order to be educated on the use of certain services before travelling or leaving the office. These were in particular newly appointed managers or users who intended to use certain services for the first time. For these users, the GHD analysts provide short training sessions, user-instruction and technical tips. For example when the bank started offering a virtual private network coupled with Internet roaming services, a technical workshop has been conducted for each mobile user who has requested these. All users were reminded and educated about the security issues, precautions and risk relevant to the utilisation of virtual private networks in lights of the bank’s security policy. Each request has been tracked, scheduled and documented using the GHD system. Similarly, when the bank has started offering terminal server technology; there was an increase in the number of pre-mobility support tickets for educating those requiring this service. The global ICT department has offered terminal server technology as an alternative to the remote access service, particularly for those mobile users who require mission-critical banking applications on their laptops as some central banks do not recommend (but do not prevent) having banking applications on laptops due to security requirements. Some mobile phone users were also frequently educated on technical aspects such as configuring the mobile phone for accessing web and WAP services, synchronising the mobile phone and workstations for accessing emails, contacts and calendar data. Few tickets also documented the work done by the GHD analysts for educating and supporting satellite phone users who travels to areas where GSM networks were not available. Hardless et al. (2001) have addressed the needs for mobile professionals learning, and as members of the community of practice (Wenger, 1996), the bank’s mobile professionals have developed this proactive pre-mobility learning.

Evidence of the significance of pre-mobility support tasks has been found also in tickets on supporting PDA devices such as Palm, PocketPC and Nokia Communicators. For instance, prior to and during the recent three-week war in Iraq, many executives and senior managers called GHD for configuring News web-services such as Reuters on their handheld devices. The bank’s executives have been encouraged to use handheld devices as the CIO of the bank has distributed 80 Palm Pilots to the bank’s executives during board meeting three years ago. During the coffee breaks of that board meeting, the GHD arranged workshops demonstrating to the bank’s executives how handheld devices could support their work and how to access services such as email and contact lists. Many executives now use PocketPCs and Nokia Communicators. As they learn about services and applications supported by PocketPCs, they call GHD to get help with configuring these extra services on their PDAs.

The bank provided video conferencing facilities in eight main branches that also are integrated through the global helpdesk management system. Prior to their business trips, some of the bank’s mobile professionals used video conferencing for the preparatory meetings, which in some cases reduced the duration and cost of business trips. The GHD received video conferencing requests and created GHD tickets that included information about the video conferencing sites, about scheduling and on how the cost of the sessions would be distributed among the participating sites. The GHD analysts in each site (i.e. branch) were expected to coordinate with each other to ensure any technical issues were resolved.

5.2 In-Mobility Support Tasks
The bank’s global help desk provided 24 hours support throughout the week. Mobile professionals could remotely call GHD anytime and from anywhere to obtain support from the analysts available on- and off-site. This support coverage was crucial as the bank operated globally across most time zones. Although some ICT analysts were scheduled to be available on-site covering the 24 hours, the remaining analysts were accessible on their mobile phones outside the normal working hours. Around 32% of the analysed tickets are on supporting professionals during their remote-mobility.

The majority of tickets show that during their remote-mobility, the bank’s professionals primarily called the GHD for problems and requests on accessing network services. For instance, the account would lock if the password was entered wrongly for three times to access email and corporate intranet services through the virtual private network and two times only if the users were accessing banking applications using the
remote access service. Mobile users would ask the GHD to unlock their account and help them to overcome any technical problems they encountered. Over that last decade, some researchers in the IS fields have social and business theories of risk in studying the ICTs role in managing risk in the financial industry (e.g. Scott and Barrett, 2000; see also Beck, 1992, Giddens, 1999). For certain users such as some of the bank’s dealers or the ICT professionals who supported the bank’s critical-mission applications, the inability of accessing ICT services and applications could potentially result in large losses. This exemplifies the importance of discussing ICT roles in risk management.

Some tickets shows that mobile professionals call GHD to be remotely educated on using services that they have not familiarised themselves with prior to their remote mobility or for configuring and installing new ICT services. Those mobile professionals have technical capabilities without which it would difficult for the ICT support analyst to educate them remotely. Those mobile professionals and their supporting ICT analysts have developed the skills of interacting remotely for solving technical problems. Newly appointed individuals have required time to develop this type of mobile learning culture.

The GHD also offers remote-site support for executives who access the bank’s ICT services from their houses. Three GHD support analysts have been trained on communicating with executives and their ICT support requirements such as installation, configuration of desktops, laptops, ISDN4, ADSL5, Dialup, Satellite, Internet and wide range standard and banking applications and communication services. The increase of this type of support calls, particularly when there are major changes in the executive house or when the executives move to new houses, has promoted the GHD to define problem categories in the GHD tracking system to address the need of categorising this kind or remote site support. The GHD considers these calls as business calls to which high priority responses should be provided similar to the executives’ in-office ICT support requests. Briere and Heckart (1995) argued that while home offices can mirror the employees’ office desk setups and, therefore, allow them seamless use of applications, technical problems do arise, including difficulties with connections such as cabling, ISDN access, security, and remote support.

Some tickets reported issues relating to the bank’s global managed data services, that is the wide area network. This would be done either from different branches to the head office by remote-mobile users who are on business trips to the branch or by users permanently working in the eight integrated branches. The GHD first level analyst was expected to respond promptly and escalate the call to the global networking services analyst, unit head and service provider if required depending on the nature of the problem. Outside normal working hours, the global networking services analyst used their laptops for troubleshooting and resolving the problem immediately as this could greatly impact the bank’s business and transactional processing. Delays in resolving global managed data services problems could result in millions of US$ losses.

During the three weeks war in Iraq, the requests for news subscriptions resulted in the creation of a ticket for each request, which was then transferred to the global networking services unit for implementation. This unit were responsible for administering the news, which includes local and global news relevant to the war and which may have impact on the bank’s business. Prior to the start of the war, the bank performed intensive testing on its disaster recovery set-ups and prepared business continuity plans in which scenarios were created to address the need for switching to the disaster recovery sites in Europe or the Middle-East. The head office building was in the diplomatic area full of foreign embassies and political institutions. Peaceful demonstration took place close to the head office, and could potentially have impacted the bank had they gone out of control. Using the news services, the bank’s mobile users were updated and notified about any local and global developments. Some users even started to send news directly to the global networking services team responsible for broadcasting news.

5.3 Post-Mobility Support Tasks

Upon their return from for example business trips or from home, some the bank’s mobile professionals would ask GHD analysts to assist in performing certain tasks and to resolve problems that encountered and unresolved. Around 14% of the analysed tickets were of this type.

Users would, for example, ask about the best methods to complete the backup of any data from their laptops, PDAs, or tablet PCs to their network space.

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4 ISDN is Integrated Service Digital Network
5 ADSL is Asymmetric Digital Subscriber Line
The security policy emphasised that users should regularly backup their data to the network since all business data should be kept on the network. Leaving sensitive data on fixed, potable or mobile workstations without regular transfer to the network could result in sanctions and serious disciplinary actions up to dismissal from job.

GHD analysts also observed that some users using laptop while travelling developed a routine of leaving laptops in their office after their return. Most of the bank’s offices were in open-office environments, which made the laptop subject to internal security risks despite the building security arrangements that protect resources from some of the external risks and hazards. These observations were reported to the CIO who instructed the GHD analysts to start taking these laptops to the GHD workshops without the knowledge of those users. When they returned to the office next morning, those users would panic and report the loss of their laptop. Consequently, the GHD started to arrange for laptop locks for those users who need their laptops for business trips only. In his structuration theory, Giddens (1984) argues that sanctions (as interaction) reproduce legitimation (as structure) through norms (as modality). The two examples above exemplifies this reproduction process where structure, norms (i.e. rules), and sanctions reproduce each other.

6. Conclusion

In this paper, we have demonstrated the significant role of ICT call-centres in supporting mobile professionals in a global banking organisation. Both ICT support analysts and mobile professionals have developed mobile learning skills that enable them to interaction prior, during and after remote mobility to address mobile ICTs support requirements. The ICT support services that the global support call centre provided for remotely mobile users have been classified into three categories: Pre-Mobility, In-Mobility, and Post-Mobility. The study clearly demonstrates that the issues related to establishing mobile organisations goes far beyond procuring mobile and wireless devices. Mobile working requires mobile support and this implies an extensive support infrastructure ensuring proper use and support of the technologies.

References


