

CHAPTER 12

CALL CENTERS IN DISTANCE EDUCATION

Andrew Woudstra, Colleen Huber, & Kerri Michalczuk Athabasca University

Introduction

In the past decade, call centers and contact centers have evolved to become the front line for customer interaction in many types of organizations. As such, they have a critical importance in the implementation of organizational strategy (Evanson, Harker, & Frei, 1998). Call centers have application in many industries offering customer service, as they can provide customers a single access point to diverse services. Many organizations use call centers to solicit clients or customers for new sales or donations and contributions. They can also be used to accomplish surveys of customer satisfaction or public opinion. Call centers can be divided into groups: those that focus on outgoing calling; those that focus on incoming calls, such as customer information and help areas; and those that are established to accomplish multiple tasks.

In education, call centers can be useful to the educational institution in many ways, ranging from simple provision of information to prospective students, to fundraising, collection of survey data, and even provision of instructional services (Hitch & MacBrayne, 2003). In distance education in particular, the call center concept can be an effective communication tool, enabling the institution to provide and improve service to students in many areas, including instruction (Adria & Woudstra, 2001; Annand, Huber, & Michalczuk, 2002).

At Athabasca University, call centers are used in a number of contexts, and show a good deal of potential for expansion and consolidation, to take advantage of economies of scale in technology. After a brief introduction to the place of call centers in business theory and practice, this chapter uses Athabasca University's practice and potential as an example in its exploration of call centers and distance education.

Call Centers in Organizations

Call centers have particular significance in three areas: in customer service and retention, in direct marketing, and as sources of management information and customer feedback (Friedman, 2001).

- *Customer service and retention:* In business operations, call centers have become the primary contact point with customers, and serve as the means by which the organization creates a long-term relationship with individual customers and maintains customer satisfaction. Customer satisfaction will generally lead to retention and to word-of-mouth recommendations. In distance education, call centers can help create the same type of relationship. In the context of a university's service standards for processing applications, marking assignments, or answering calls and messages, call center staff are the consistent point of contact with the student, and become their advocate.
- *Direct marketing opportunities:* The support provided by a call center is increasingly seen as a service that customers expect to find integrated with product offerings, and to be available by phone and on the Internet. This contact with the customer (who, in the case of online or distance education, is a student) may result in opportunities to help the student choose additional products (programs or courses) and services (e.g., advising, counseling, tutorial).
- Source of management information and student or customer feedback: A call center with good software accumulates a great deal of information about customers or students. This information is collected by analyzing call documentation data, or by directly presenting questions to the customer or student. Distance education institutions should make the collection and analysis of information a major call center goal.

Strategy and strategic decision-making have long been areas of active academic and practitioner inquiry. Chandler (1962) studied the development of American corporations in the early twentieth century, and postulated that corporate structure was designed to implement strategy; in other words, that structure followed strategy. Many other scholars followed with theories of their own. Mintzberg and Lampel (1999) identify ten "schools" of theory about strategy, and note that recent work has begun to cut across these schools or historical perspectives. Much recent work (Eisenhardt, 1999; Markides, 1999; Pascale, 1999; Kim & Mauborgne, 1999) studies strategy as a dynamic that emerges from the competitive environment, evaluates that environment in an ongoing manner, and flexibly adjusts the corporate course when necessary. Organizations compete on the edge, adjusting their deployment of employees and other resources as necessary strategic changes are made (Hamel & Prahalad, 1994).

Over the past 20 to 25 years, experience has shown that information technology is an increasingly important potential contributor to an organization's productivity, and that organizations experience maximum value when information technology investments are strategically driven. Davenport and Short (1990), who studied the relationship between information technology and business process redesign, postulated an enabling link between, on the one hand, the development of strategic vision and process objectives, and on the other, successful, IT-driven process redesign.

Call centers provide an example of the application of these concepts. Call center design has been enabled by the use of telecommunications technology and its ongoing integration with information technology. Call center concepts are becoming integral to the redesign of business processes (particularly informational processes as distinguished from those focused on physical objects), and where call center implementations are strategically driven and aligned, their value to the organization is the greater.

It is important that objectives established for a call center support and further the organization's strategic direction. For example, a call center focused on routing telephone calls to the appropriate staff member or department has a relatively narrow task; it will be suited to an organization that needs to be able to give short, concise answers to a high call volume. An inbound telemarketing call center focused on sales will allow longer calls, focusing on minimizing waiting times and maximizing sales impact. However, if the organization as a whole were strategically focused on the creation of customer loyalty, the call center would be a primary means to achieve that goal, and both of the examples above would fall short in contributing to this corporate strategy (Holt, 2000).

Many call center managers are looking for ways to build costeffective, competitive operations using industry benchmark information.

We've become obsessed in this industry with mass comparison. We survey and benchmark and publish averages, quartiles and percentages. These numbers get proclaimed as "industry standards" that your call center should aspire to match. (Cleveland & Hopton, 2002).

However, as these authors go on to note, surveys reveal that "customers are, overall, not happy with service." Given the diversity of mission and function of call centers, it is likely that what fits one will not fit all. It is much better to examine what the organization is trying to achieve, and to build processes and systems that help achieve these goals in effective and efficient ways.

Call centers can very well be a strategic asset for organizations, as they can be used to strengthen customer relationships, and can enable the organization to learn more about customers, so as to serve them better. Adria and Chowdhury (2002) make a strong case for using call centers to improve an organization's ability to serve its customers. They argue for empowerment of call center managers and employees to enhance customer service, and they note that the main responsibility for workers in a call center operation is to maintain and enhance the reputation of the organization. That is, the organization's carefully developed customer service culture is at risk during each customer interaction. Distance education shares the trends affecting many firms in financial service, telecommunication, and technology industries. A dominant trend is the increasing distance from the customer (or student). Phone companies, utility providers, and banks once operated many small outlets, scattered throughout cities and present in every small community; now, however, there are a few large facilities (and increasingly, online services) backed up by call centers. For call centers to be successful and productive in any field, including distance education, a number of critical success factors must be in place. Successful call center implementations require the development of effective processes and policy, the implementation of appropriate technology, and effective human resource management processes (Evanson et al., 1998).

Processes and Policy

Once a call center business strategy has been developed, and the processes required to carry out the designated objectives have been adopted, it is crucial that those processes be evaluated. A key part of this evaluation involves looking at the types of contacts the call center is receiving, how contacts are routed, and how contact processes are managed. The call center should also establish polices and standardized operational procedures. Most importantly, quality monitoring and reporting processes must be in place, so that the call center can continue to meet established objectives.

Call centers are particularly effective, and had their genesis, in organizations that received large volumes of calls from customers who were experiencing uncertain results as they attempted to find the individual or department that could deal with their issue. Staff in such organizations were also frustrated, and not utilized effectively, as they forwarded calls or tried to help in areas outside their experience. The direction of calls to one area allows call center agents to handle queries in volume. Only calls requiring additional expertise not available in the call center are referred on to other areas of the organization. Call centers become a collection point for organizational information as databases are created to allow agents to handle a wide range of queries. Thus, over time, the expertise and information available to a call center is expanded, so that it can handle more of the calls coming to it without resorting to referrals and call backs.

A call center concept also can be used to allocate and distribute workload in the organization. Without such a center, highly paid professionals are often used to handle tasks that underutilize their expertise. A call center with good call routing processes can distribute calls to the individuals or automated agents most qualified to handle them.

Ideally, all relevant information about a customer and their issues is documented and available to all agents within a call center. In addition, with collaborative systems, more than one agent can simultaneously work out a particularly thorny issue with a customer, with each staff member contributing their particular expertise.

Organizations that are customer-focused use call centers most successfully (Evanson, et al., 1998). However, many firms seeking to become more customer-oriented purchase and install elaborate customer relationship management (CRM) software suites that track and record service transactions. If this installation occurs without significant planning, because managers are dazzled by the promises of the technology, the implementation is often a failure. Rigby, Reichheld, and Dawson (2003) emphasize that CRM installations work if the organization starts with a customer strategy, then realigns its structure and processes to fit the strategy, and finally selects the technology that is appropriate for the chosen strategy and processes. Whether implementing CRM technology, call center technology, or both, the organization must first ensure that its strategy is appropriately customer-focused, and that the technology being considered fits with that strategy (Hitt, Frei, & Harker, 1998; Rigby, et al., 2003).

CRM products have helped call centers organize some of their customer contact processes, and have also helped increase efficiencies and quality of service. According to John Kiska (2002), a new approach must be added to follow up on CRM processes. Customer experience management, or CEM, is emerging as a means to retain valued customers. It is widely know that retention of current customers is cost effective and highly profitable for an organization (Reichheld, 1996). This can also be true for a distance education organization that benefits from program or long-term students. A CEM process begins by identifying key measures for

customer satisfaction and retention. The statistics it gathers can help organizations make sound decisions when it comes to call center operations and policies (Kiska, 2002). Holt (2000) holds opinions similar to Kiska's, indicating that customer loyalty and satisfaction are linked very closely to the success of the organization and call center.

If call center operators used customer contact to understand attitudes to the company, to assess brand perceptions, to research responses to marketing activity, and to begin to unlock the secrets of long-term loyalty and advocacy, the value of that call center operation would increase immeasurably. It will enable other parts of the organisation to assess the relevant issues and take the necessary action. (p. 11)

Technologies

Information technology is increasingly important to a wide range of firms, and is the enabling platform for call centers, the Internet, and other innovations. Earlier in this chapter, we noted work by Davenport and Short (1990) on the relationship between information technology and business process redesign. Hitt et al. (1998) investigated adoption of technology in the financial industry. They note that research on IT investment has found that it is a substantial contributor to productivity and productivity growth.

In the last ten years, various call center technologies have become available to the market, including voice-over-Internet protocol (VoIP), customer relationship integration tools, and Internet and Web communication tools and products. In their study of call centers in the financial services industry, Evanson et al. (1998) note the requirement for call centers to ensure that their technology is effective or appropriate for the call center's strategy. Krol (2002) indicates that while excesses in the adoption of technology were common in the recent technology-bubble firms, organizations are now returning to basics. That is to say, call centers are more interested in products that provide mission-critical services. Customer loyalty and service objectives should drive call center technology investments. Technology is transforming the traditional call center, allowing staff to be in contact with customers in a number of different ways, including, but not limited to, e-mail, chat, Web browsing, and voice mail. Finding the right technology is not an easy task, but the first steps must be to determine the organization's needs, and to link customers with the information and services they require quickly. Knowledge databases, CRM or customer tracking, CEM or customer follow-up and retention, and handling of multiple contact media must be integrated into a system that is easily accessible to front-line staff, or to customers directly. Automated systems can match customer and call center staff, based on the customer's profile and the staff member's knowledge focus. The banking industry is experimenting with such "intelligent routing" to direct calls from the bank's best customers to particular representatives (Knowledge@Wharton, 2002).

The first generation of call centers focused on answering telephone calls from customers (students). As the Internet has become more widely used, call centers have made use of this technology as well. Internet technology allows feedback to customers or students to occur through either of these two channels, and the more flexible Internet media provide a variety of tools, including Web chat, asynchronous conferencing, video conferencing, and Web call backs.

Recently, call centers have also begun to make use of Web sites to provide their customers with more information. There has been a push to providing customers with "Frequently Asked Questions" (FAQ) pages, where customers can look up answers to their own questions. Intelligent question and answer systems can look up answers for clients, and provide them automatically (Brandt, 2002). Athabasca University has developed such a tool, called Ask AU (see http://www.askau.ca).

When considering any of the Web-based tools for use with a call center, it is important to consider their positive and negative aspects, and how they will affect call center operations. Since the Internet gives customers or students the power to seek out answers on their own, organizations have a challenge to develop integrated systems that allow delivery of services that are better and that operate faster than those that customers can find for themselves. In addition, people tend to like services that are "multi-channel"; they may use the Web site, but will also want direct contact with

representatives. The channels should be viewed as complementary, not competitive.

The Internet is capable of providing vast amounts of information for call center staff as well as for current and potential customers or students. However, developing user interfaces that make this information quickly available in a format that satisfies the diverse needs of users is an ongoing challenge. A major impact of the new Internet-based technologies is that the service bar is being raised. If routine issues are handled on the Web through automatic agents, the call center must handle more sophisticated calls.

Human Resources

Bartlett and Ghoshal (2002) make the case that human, not financial, capital must now be the starting point and foundation for successful strategy. Financial capital and also technology are increasingly being commodified, and each is found in abundant supply. As a result, the skills, knowledge, and ability to innovate of an organization's staff will increasingly be the distinguishing factors for successful strategy implementation and value creation.

Customer service studies show that when something goes right, customers give credit to the individual employee dealing with the problem; when something goes wrong, customers usually blame the organization itself. This fact makes it crucial for any organization to have the right number of people, with the right skills, at the right place and the right time, ready to answer customer demands (Krol, 2002). In North America, personnel costs form 60% to 70% of costs in call centers.

Clearly, therefore, recruitment and hiring of front line and call center managers, training and coaching of staff, and ongoing performance management are very important to a call center's success. Call center staff are the front-line human element for the customer. They need to feel that they are a vital part of the organization in order to promote the reputation of the organization. Selection of staff with customer service skills, such as excellent communication skills, writing skills, and a positive attitude, is very important. It is also important to recruit personnel with appropriate experience and educational background, to ensure that they are capable of providing quality services to customers or students.

Training and ongoing coaching is also extremely important, as call center environments, technologies, processes, etc., tend to change rapidly. It is important that staff is involved in the changes, buy into the new processes, and have the information they need to be able to carry them out.

Assessment and performance checks are extremely important. What are the employee satisfaction levels? What are your customers saying about the service they are receiving? Retention of staff is as important as retention of customers, so that loyalty to the service is maintained. Rigby et al. (2003) note that the prime driver of customer loyalty is the loyalty of the organization's employees. Creating a positive and healthy environment for employees will improve the service they provide to customers. Evanson et al. (1998) found that institutions with customer service representatives recruited from within the organization experience lower turnover. Also, organizations that have fewer empowered employees have higher turnover. They also noted that institutions with higher employee empowerment tend to have higher overall customer focus, and that institutions with greater customer focus have higher average spending on labour.

Adria and Chowdhury (2002) argue that call centers can and should allow employees to upgrade their skills, make more and better decisions, and participate in team-based organizational culture. Skills training leads to higher employee satisfaction and higher productivity. Frontline staff should be corporate ambassadors for the organization. They also argue that organizations should pursue decentralization and team building: frontline employees are more productive if they are allowed to make decisions and provide input into the operation of the call center; and customer service is more effective if employees feel they are part of the common effort to achieve excellence. Early uses of call centers included marketing and promotion, as well as the provision of technical assistance. There are two primary operating modes for these functions. The first is to field calls from current customers wishing to place more orders or discuss products, and from new customers directed to the call center number by advertising and promotional materials. This is the function that increasingly involves the Internet. The second operating mode for a call center is the outgoing cold call. A possible customer is identified by region, income, or other factor, and is called at home with an offer the organization's product, a solicitation of a donation, etc. A carefully prepared script is provided for the call center staff to use in their contacts. This is a very popular function for a call center for charities and long-distance phone companies. Call centers are also used to carry out surveys (Coen, 2001; Hitch & MacBrayne, 2003).

In education, the primary use of call center technology in marketing and promotion is to field incoming calls from students who have learned of the educational institution through advertising, word-of-mouth referral, Internet search, or other means (Hitch & MacBrayne, 2003). Many institutions accept volumes of queries, from prospective students and their parents, in which they provide information about their programs, both educational and extracurricular. Often, large numbers of attendants are only needed during peak recruiting seasons. In distance education, where students are not on campus, there is additional pressure to fill the information needs of current students on a day-to-day basis, by answering questions about course availability, helping a student get information about their performance, and so on. Finally, the student advising function, in which an advisor works with a prospective or current student to work through program planning issues, is also an ideal candidate for application of the technologies and organizational format found in call centers. The question of cold calling to solicit customers or students is more questionable, but should perhaps not be dismissed out of hand. The structure of such calls and the criteria for initiation would require careful consideration. However, it is interesting to note that Evanson et al. (1998) found that employee turnover in call centers was lower when large calling campaigns were outsourced.

Many colleges and universities support multiple software and hardware platforms. With increasing offerings in online distance education, students will not only be calling with questions related to course content; they will also require technical assistance. Good service to students requires a single contact point for both technical and content related questions.

Helpdesk Meets Call Center

The helpdesk first emerged to help customers and staff of organizations deal with technical problems associated with computer use. Noel Bruton, a well known IT consultant in Great Britain, notes that the IT helpdesk took on its current form in the mid-1980s. The call center concept used today came later, in the nineties, to deal with issues and queries that are not related to technology (Bruton, 2002). According to Bruton, a key difference between a helpdesk and a call center lies in how the two functions deal with knowledge management. He contends that helpdesks, while they do impart prepared or premanufactured information, also require diagnostic skills from their staff

It is the experience of the authors that call center services to students engaged in e-learning require that call center staff have diagnostic skills that enable them to work with students to determine the nature of and solutions to their course content queries (tutoring), and to work through program issues (advising). To deliver a one-stop shop for students engaged in e-learning, it is important that the diagnostic skills offered by a helpdesk are combined with the directive and prepared services of a typical call center.

In a consolidated call center/helpdesk, the use of a knowledge base is important for both functions; however, with diagnostic situations, the bigger problem is usually trying to deduce the actual problem. The knowledge base built up for many course-related, programrelated, and technical questions can be very straight-forward and can comprise simple questions and answers. The knowledge base for diagnostic questions must also include a step-by-step guide for asking questions to determine the nature of the problem, followed by steps

for solving the problem. Learning to deduce the actual problem is a unique skill set and takes time to learn.

The staff of an online learning call center must incorporate skills from both call center and helpdesk environments, and have some specialists available to deal with particularly complex issues. Good skills within an environment such as this usually include strong communication skills, student (or customer) service experience, and an ability to adapt to new situations.

The call center manager can help staff answer all types of questions by ensuring that all staff are aware of any new technology being used. Demonstrations on how the technology works, and time to practise and become familiar with the application are important for the staff. A good set of "Frequently Asked Questions," complete with step-by-step solutions, should be made available to call center staff. And, as with course content queries, there should also be a technical expert available for more complex issues.

Brandt (2002) notes that only 14% of all helpdesk calls are new problems that require serious attention. The remaining 86% could all be resolved automatically, without human intervention, via Web-based features. It has also been shown that if end-users are equipped with better documentation or automated self-help Webbased facilities, calls to the call center or helpdesk can be greatly reduced (Hunter, 2000; Brandt, 2002; Lawlor, 2001). Lawlor (2001) points to surveys showing that organizations that reduced the number of helpdesk/call center calls by creating self-help options had a higher level of user satisfaction.

Doherty (2001) points out that help desks are typically organized in layers or tiers. Tiers can start at Web-based self-help which Lawlor (2001) designates as tier 0, and move up in hierarchy to the front line facilitator, tier 1; through the desktop analyst, tier 2; to the network specialist, tier 3. A consolidated call center/helpdesk in education will likewise be layered in tiers. Where possible, Web-based self-help (tier 0) should be developed, providing extensive FAQ files, bulletin boards, and conference and chat areas. Call center staff that are the first contact with students are tier 1, technical experts to whom questions are referred are tier 2, and the academics serve as tier 3.

Call center consolidation makes a great deal of sense for a number of reasons, including the rapid progression in technological advances enabling better access to organizational information for call center agents and customers. When there are similarities in the tasks performed and overlap in the services provided by currently separate call centers, there is an immediate potential for economies of scale. An agent in a large group can handle more calls at a given service level than they can in a small group. Mitchell (2001) points out that efficiencies can be achieved up to a center size of approximately 50 agents. After this point, incremental gains are minimal if they occur at all. While many call centers contain many more than 50 agents, the maximum optimal size for their subunits or teams is 50. Other motivators for call center consolidation include reduced equipment costs, simplified implementation of new technologies, better control over service quality, and reduced management staff requirements.

In the past, call centers segmented calls on the basis of skills. Consolidation can also occur within a call center by rationalizing the segmentation of some agent groups. For example, in a bank, commercial loans required different skills than personal loans. In other settings, technical help requires different skills than service, which requires different skill than sales. According to Mitchell (2001) knowledge management, process management, just-in-time training, and CRM all contribute to the tearing down of skills barriers to service. Mitchell notes that

today's segmentation strategies no longer look to agent skills as the basis for routing calls, but instead focus on client value to determine what services to provide through what media. Low value customers get routed to self-service technologies. High value customers get high-touch service. No matter who or what the customer ends up interacting with, the agent, human or computer, has all of the services, corporate knowledge and process flows needed to handle the customer requests.

In an educational environment, the concept of "low value" and "high value" customers has no place; however, the concept of segmentation is potentially useful. Such segmentation would be

based on student characteristics (program versus non-program, graduate versus undergraduate, area of study, etc.), as well as type of query. Many queries may be routed to self-service areas, while others are routed to specialized agents. Data collected within the call center will inform the segmentation. Improving data will allow each agent to handle more diverse and more difficult calls, and as more knowledge becomes incorporated into knowledge systems, training becomes more an exercise in teaching agents the "how to's" of developing customer relationships rather than focusing on each product or service offered.

Call Centers at Athabasca University

Athabasca University serves more than 30,000 students annually. Courses are offered primarily through independent study, in which students have the flexibility of time and place to set their own schedules, and so, in effect, to pursue part-time studies and a fulltime career. The University strives to remove the barriers of time, space, past educational experience, and to some degree, level of income. Athabasca University's mission and mode of operation make effective methods of communicating with students and prospective students very important. Using the call center model to build student satisfaction is an attractive alternative for Athabasca University.

Over the past 10 years, Athabasca University has developed three unique call centers, described below.

• The Information Center, the call center operating as a first point of contact, was established in 1995. Information Center staff field all incoming calls not directed to a private line or to one of the other call centers, and determine the purpose of the call. Information Center attendants are well informed about the University's services, programs, and courses, and have access to a wide range of information. Many calls to the Information Center are redirected to student advisors, to the Office of the Registrar, to the Computer Services Help Desk, to the School of Business Call Center, or to course assistants. Prior to 1995, incoming calls came to a single telephone number in the Office of the Registrar, and many calls were lost. In addition, students expressed frustration with their experience in finding the right person in the institution to deal with their particular problem. Since 1995, many of these problems have been resolved, and the volume of calls, and students, has increased exponentially. In the past five years, the volume of e-mail queries has also risen rapidly, and an automated information system called "Ask AU" has been added to enable students to obtain answers to questions without intervention of a staff member.

- The Computing Services Help Desk, established in 1994, provides technical assistance primarily to help University staff obtain information and support for University computing resources; that is, it helps staff resolve problems with their Athabasca University equipment and supported software. The Help Desk does provide assistance to students in computing science and psychology courses, but students are generally referred to the academic units for courseware support.
- The School of Business Call Center was created in 1994 as a pilot project to investigate the feasibility of alternative tutoring methods. It has grown to include almost all School of Business undergraduate courses, which account for approximately 11,000 registrations or 30% of the University's undergraduate course registrations. The Call Center is the central focus of student support in the undergraduate School of Business, and is integrated with its online course delivery platform, which will be described in detail below.

Potential Developments in Athabasca University Call Centers

The Information Center has operated as an inbound call center and has not been used to make outward calls, except to return messages. It has been very effective in provision of information and facilitates the recruitment process in this respect. In the future, there is no reason why the Information Center could not expand its role to also make outgoing calls to students graduating from high schools and college diploma programs to inform them of opportunities at Athabasca University, should the University decide to pursue this recruitment strategy. It would, of course, be necessary to balance the drive for efficient outgoing call practice

with the need for customer focus. When call center staff have underused time, they might be able to make outgoing calls, but they should focus on customer-retention calls (Evanson et al., 1998).

There is potential for consolidation of the three call center groups into a single organizational structure: together, they have less than 50 staff, and they do have some service overlaps. In addition organizational efficiencies are available. Even without consolidation of functions that involve direct student contact, significant improvement in the quality of functions can be obtained by centralizing operations such as center design, staff planning, network design and management, ongoing standards reporting, IT liaison, contact automation, quality assurance, and training. Consolidation can also simplify disaster recovery issues.

The three call centers have enough overlap to make the economies of scale attractive. Achievement of such economies would logically involve the widening of call center service to include all University academic units. Many of the calls handled by the Information Center deal with academic administration, and so mirror calls handled by the call center. The call center concept could also be extended to include functions served by the course assistants, who also answer student queries, relay mark and assignment information, and so on. As more of these functions, and those handled by staff from the Office of the Registrar, are placed online, the group of services eligible for call center service expands.

Call Centers in Distance Education and Distributed Learning

Can a call center be used as a vehicle for academic coaching and advising? In distance and online education, there is an automatic separation of the instructor and the student through the elimination of the classroom. The historical practice in distance education has been to prepare detailed and thorough learning packages to guide the students in their study, and to provide tutorial support by mail and telephone. The traditional tutor at Athabasca University is the focal point for student/institution contact, with the tutor answering many administrative queries and relaying marks, as well as directly helping in an instructional role.

In the early 1990s, the business faculty at Athabasca University developed a call center model as a one-window approach for its instructional tutoring (see Adria & Woudstra, 2001). The key to its success to date has been the development of a groupware call back conference, in which call center staff (called "undergraduate student advisors") post student subject matter queries they cannot answer, and requests by students to speak to the course academic. In this way, academics field only substantive, course-related questions or problematic administrative issues. This system can ensure that someone who can answer their questions and discuss the subject matter in depth quickly responds to students. The model also allows the separation of the tutoring and marking roles that are combined in the traditional tutor model at Athabasca University, and which, we contend, form a bottleneck in the effectiveness and efficiency of the instructional function, by preventing the use of economies of scale in marking and in the handling of administrative queries. In the traditional Athabasca University tutorial model, a tutor is responsible for all contacts for an assigned group of 28 to 40 students, and marks all assignments for this group. Tutors are generally available in three-hour blocks once per week. In the call center model, students in a given course are not broken into groups; administrative questions are answered by the undergraduate student advisors, who form tier one of the model; an academic expert role exists purely for answering students' academic content queries; and a specialist marker role has been created to handle marking duties.

Under the School of Business call center model, students in any course are able to call a toll-free central telephone number five afternoons and six evenings per week. The call center now provides about 60 hours of access to telephone and e-mail assistance each week to students, and can deal with 80% of the calls directed to it (Adria & Woudstra, 2001) referring to call back only the 20% of calls to which the course academic should respond. Course academics over a broad range of courses are freed from 80% of the calls they (or their tutors) would otherwise receive, and the student's queries are answered quickly, as received, rather than once per week during an academic's telephone contact hours.

It is anticipated that improvement of technology will allow the routing of calls directly to particular agents or academic area experts. The knowledge available to and level of expertise expected of selected staff will increase constantly, to allow direct answers to more of the 20% of queries now referred to academic experts. Call

center staff will handle more challenging calls about academic content, as well as providing help with student program advising.

Prior to the implementation of call center model, payments to telephone tutors were one of the School of Business's largest expenses. Each academic advisor now handles calls from about three times as many students per week as an average telephone tutor previously did. As a result, student support costs have been reduced by approximately \$100,000 annually in School of Business undergraduate independent study courses. The cost savings enabled the development of the call back conference. In addition, an online course development and delivery system incorporating the call center was developed for most School of Business undergraduate courses. The technology used was Lotus Notes[®], a groupware software suite. Online course materials are continually being developed and improved, so that students can access course help through their course Web sites, as well as interact with call center staff and academics via the Web, using chat or discussion boards.

The call back conference database allows undergraduate student advisors and academics to track and resolve student queries online, a necessity once student support was spread among academic and support staff. The tracking in the call back conference only accounted for approximately 20% of student contacts that could not directly be answered by the undergraduate student advisors (Adria & Woudstra, 2001). However, beginning in the 2002-2003 academic year, a comprehensive Notes-based student tracking system has tracked all queries to the call center, including those handled by the call back conference, whether by e-mail or telephone. The system is Web-enabled and allows academics and other University staff to access the database from virtually anywhere, using a standard Web browser. The database is also able to produce reports and statistics on student contacts, for use, among other things, in improving courseware.

Each year, Athabasca University surveys a group of students about their satisfaction with the services they receive from the academic departments (see Athabasca University, 2002). These surveys point to areas in which the Call Center can be improved, or areas where it should continue doing those good things that are working well. The surveys show that the differences between direct tutor-to-student interaction and call-center-to-student interaction are very small, and the accessibility of the call center is an accepted and valued service to Athabasca University students. Reports such as these, and tracking information received from call center databanks, inform decisions about how services will be distributed to students. Problems quickly come to light in the call center environment, whereas long delays often occurred in the previous student-to-tutor model.

A factor requiring improvement in the School of Business call center model is the involvement of the full time academics as a group in the delivery of instruction and service to students. While the opportunity exists for their involvement, many have chosen to concentrate on their research activities, and to "buy out" their academic tutoring responsibility. Students ask for contact with the course academic, and then find their contact is delayed or does not occur as they had supposed. Inclusion of student contact requirements in negotiated annual workloads would easily solve this problem.

Conclusion

As Athabasca University takes the shape of a decentralized, network environment, as envisioned by the Strategic University Plan, the call center organizational format becomes more and more natural. There is considerable scope to expand the concept of call center service to the two thirds of undergraduate students not in the School of Business. Some of these students obtain some service from the Information Center; others, who have had experience with the School of Business call center, try to use it to obtain service when they study in other areas of the University. Furthermore, many of the services provided by the Office of the Registrar and by the University student advisors are candidates for consolidation into call center formats.

- Adria, M., & Chowdhury, S. D. (2002, Winter). Making room for the call center. *Information Systems Management*, 71-80.
- Adria, M., & Woudstra, A. (2001). Who's on the line? Managing student interactions in distance education using a one-window approach. Open Learning, 16(3), 249-261.
- Annand, D., Huber, C., & Michalczuk, K. (2002, May). The use of Lotus Notes as a comprehensive learning, evaluation and production system. Paper presented at the Computers and Advanced Technology (CATE) conference, Cancun, Mexico.
- Athabasca University (2002). Report on student satisfaction with academic services: Undergraduate, domestic, individualized study. Athabasca, AB: Author.
- Bartlett, C. A., & Ghoshal, S. (2002). Building competitive advantage through people. *Sloan Management Review*, 43(2), 34-41.
- Brandt, D. S. (2002). Automating your IT help desk. *Computers in Libraries, 22*(3), 52.
- Bruton, N. (2002). Helpdesks and call centers—a comparison. Retrieved October 23, 2003, from http://www.bruton.winuk.net/articles/hdcc.htm
- Chandler, A. D., Jr. (1962). Strategy and structure: Chapters in the history of the American industrial enterprise. Cambridge, MA: MIT Press.
- Cleveland, B., & Hopton, T. (2002, October 5). Industry standards cannot replace sound decisions. *Call Center Magazine*. Retrieved October 23, 2003, from http://www.callcenter magazine.com/article/CCM20021005S0002
- Coen, D. (2001). Building a powerful telephone sales presentation. *Direct Marketing*, 64(7), 52-53.
- Davenport, T. H., & Short, J. E. (1990). The new industrial engineering: Information technology and business policy redesign. *Sloan Management Review*, *31*(4), 11-27.
- Doherty, S. (2001). Helpdesk salvation. *Network Computing*, 12(7), 42-48.
- Eisenhardt, K. M. (1999). Strategy as strategic decision making. *Sloan Management Review*, 40(3), 65-72.

- Evanson, A., Harker, P. T., & Frei, F. X. (1998). Effective call center management: Evidence from financial services. Retrieved October 23, 2003, from http://www.hbs.edu/research/facpubs/ workingpapers/papers2/9899/99-110.pdf
- Friedman, T. (2001, January). Call center management: Balancing the numbers. *Industrial Management, 43*(l), 6.
- Hamel, G., & Prahalad, C. K. (1994). *Competing for the future*. Boston: Harvard Business School Press.
- Hitch, L. P., & MacBrayne, P. (2003). A model for effectively supporting e-learning. Retrieved October 23, 2003, from http://ts.mivu.org/default.asp?show=article&id=1016
- Hitt, L. M., Frei, F. X., & Harker, P. T. (1998). How financial firms decide on technology. Retrieved October 23, 2003, from http://grace.wharton.upenn.edu/~lhitt/itdec.pdf
- Holt, B. (2000, December). Calling out for the human touch. *Customer Loyalty Today, 8*(1), 11.
- Hunter, P. (2000, September 8). Hands-on helpdesks. *Computer Weekly*, 60.
- Kim, W. C., & Mauborgne, R. (1999). Strategy, value innovation, and the knowledge economy. *Sloan Management Review*, 40(3), 41-54.
- Kiska, J. (2002, October). Customer experience management. *CMA Management*, 76(7), 28-30.
- Knowledge@Wharton. (2002). Web based call centers transform customer service. Retrieved October 23, 2003, from http://www1.skillsoft.com/elearning/wharton/archives/oper_mg mnt.html
- Krol, C. (2002, October). Firms stick to basics with call center tools. *B to B Chicago*, 87(10), 22.
- Lawlor, T. (2001, February 1). The people factor. *Computer Weekly.com.* Retrieved October 23, 2003, from http://www .computerweekly.com/articles/article.asp?liArticleID=26184&li ArticleTypeID=20&liCategoryID=2&liChannelID=30&liFlavo urID=1&sSearch=&nPage=1
- Markides, C. C. (1999). A dynamic view of strategy. Sloan Management Review, 40(3), 55-63.
- Mintzberg, H., & Lampel, J. (1999). Reflecting on the strategy process. *Sloan Management Review*, 40(3), 21-30.

- Mitchell, I. (2001, December) Call center consolidation—does it still make sense? *Business Communication Review*, 24-28.
- Pascale, R. T. (1999). Surfing the edge of chaos. *Sloan Management Review*, 40(3), 83-94.
- Reichheld, F. F. (1996). *The loyalty effect*. Boston: Harvard Business School Press.
- Rigby, D. K., Reichheld, F., & Dawson, C. (2003, March/April). Winning customer loyalty is the key to a winning CRM strategy. *Ivey Business Journal*. Retrieved October 23, 2003, from http:// www.iveybusinessjournal.com/article.asp?intArticle_ID=409