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OFFICETECH®: A NEW PARADIGM IN OFFICE SERVICES?

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Abstract

OFFICETECH® is a startup company providing office assistance over the Internet. It certifies assistants’ skills, matches them with potential clients, supervises the quality of the work done, and provides software tools for online collaboration. The founder, Gayle Barr, believed that this type of assistance would soon be the predominant model due to a convergence of several trends. First, advances in the Internet technology, GroupWare, and their acceptance by managers and professionals coupled with growth in the amount of coordination across time zones due to globalization and expansion of the number of telecommuting workers indicated that clients would be willing and able to work in a virtual relationship with their assistants. Second, extensive corporate downsizing and a large number of home-based new business start-ups had created a large pool of clients who did not have adequate permanent assistance available. In addition, many companies were now using large numbers of part-time and contract workers on an ongoing basis for clerical and professional positions. Thus, Gayle reasoned, the technology was accessible, the need for part-time and temporary administrative assistance was apparent, and clients were now sufficiently comfortable with such arrangements that the OFFICETECH® concept should be feasible.

Keywords: Technology trends, office of the future, strategic IS, distributed work arrangements, telecommuting, remote work, social impacts

Gayle Barr was checking the latest e-mail messages for OFFICETECH®, a startup company located in Boca Raton, Florida, and contemplating the decisions she would soon have to make. The company had been established to allow busy managers to contract with “virtual office assistants” from around the globe, using the World Wide Web. The company had already prepared the public portion of its web site. Now, the question had become did she make the investment of time and effort necessary to turn the OFFICETECH® concept into a business? If so, what would be the best plan for doing so?

The OFFICETECH® concept was a simple one. Clients would contact the company to establish a long-term online relationship with one or more virtual office assistants. The company would play two key roles in fostering this relationship. First, it would identify suitable assistant-client pairings, based upon the manager’s needs, the assistant’s skills, and a brief trial period to determine if the “online chemistry” between the two was acceptable. Second, OFFICETECH® would provide the tools for effective online collaboration—including both computer-based tools (e.g., e-mail, word processors, timesheets, file transfer (ftp) sites), and other tools (e.g., faxes, scanners)—and make sure that the assistants were adept at using them. Clients would contract for the use of these assistants during specific blocks of time and would be charged by OFFICETECH® based on the hours and services they
required. OFFICETECH® would also take responsibility for ensuring that other qualified assistants covered any periods of assistant unavailability.

The fundamental question then became: would the concept work? The problem was not one of insufficient information. The company had already compiled a large list of potential employees interested in registering as virtual office assistants. Barr had also done extensive background research on business trends that demonstrated the need for help. Increasingly, executives in businesses with a worldwide focus were being required to make decisions and respond to questions outside of normal office hours. Often, without the availability of support staff. Large businesses vigorously pursuing rightsizing policies were eliminating the manager-secretary relationship—a relationship that was already endangered by technologies such as word processing. Telecommuters and virtual businesses often operated with no support staff whatsoever—yet they still had routine activities that needed to be performed. All of these managers could seemingly benefit from the OFFICETECH® concept.

Barr knew, however, that there was a huge difference between an enormous potential demand and a functioning business. Which potential benefits of virtual office assistants would be most attractive to clients? How could the company get the word out to potential clients? What if the company grew so slowly that it could not provide enough work for their virtual office assistants? Even more daunting, what if demand were so high that it swamped the company’s resources? And, even more basic, what specific services should they initially offer? The opportunity was enormous, but each week of delay increased the risk that another company would beat them into the market. She had already spent over six months developing the company. She realized that these decisions had to be made soon, or she could lose all the time and money already invested.

TRENDS IN ADMINISTRATIVE WORK

The OFFICETECH® concept was based upon a convergence of trends in two areas: changes in the performance of administrative work and electronic collaboration. Within the area of administrative work, a number of key trends seemed to support the eventual emergence of virtual assistants:

- **Outsourcing:** Companies increasingly relied upon outsourcing to accomplish administrative and clerical functions. One particularly common form of outsourcing was the use of part-time and temporary workers (temps).

- **Decline of the Traditional Secretary:** During the early part of the 20th century, nearly every manager was assigned a full time secretary. As the century ended, however, such relationships were becoming increasingly rare—replaced by pooled resources or eliminated altogether as managers performed more of their own clerical work using electronic tools.

- **Globalization:** As businesses became global, the need for around-the-clock support for business functions grew correspondingly.

These three trends suggested both the need for—and the feasibility of—the development of virtual relationships.

**Outsourcing**

Outsourcing occurs when a business uses third parties to perform activities that were traditionally performed by the business itself. One of the major changes that had affected the U.S. business community in the last decade of the 20th century was the trend toward outsourcing. For some companies, the focus was on reducing operating costs through a reduction in personnel. The result was downsizing their white-collar workforce. Downsizing could be achieved in any of several ways, but outsourcing work that was once done in-house was proving particularly popular throughout the 1990s. Companies that had undergone downsizing then hired outside contractors—sometimes the same individuals who had been downsized—to perform whatever work could not be done by those remaining. Outsourcing was also used to provide flexibility and a focus on core competencies. Outsourcing was common in both manufacturing and support functions, such as accounting, finance, sales, and customer service. The Outsourcing Institute
had estimated the outsource contracting market at $100 billion in 1996 and predicted it would grow to more than $300 billion by 2001.\(^1\) Any company that could capture even a small piece of that market would tap into a large and growing revenue stream.

Even companies that were not outsourcing functions were reducing their white-collar work force. Using layoffs, early retirement, and the increased use of part time and temporary workers (themselves a form of outsourcing), many companies had drastically reduced the ranks of middle management and administrative support staff. As of 1997, approximately 20% of U.S. workers worked part-time and about 5% were contingent or temporary workers.\(^2\) The overall number of temporary or contract workers appeared to be rising. Increasingly, these temps included highly skilled technicians, managers, and professionals. Despite the use of temporary workers, however, much of the work previously performed by those who had left the company fell to those who remained. As a result, the average American in the late 1990s worked five days more per month than he or she did 10 years previously.

Barr felt that the trend toward outsourcing and use of temporary workers greatly increased the likelihood of success for a company supplying administrative services online. First, heavy workloads provided motivation to find help. Second, managers would not have to be educated on the nature of the outsourcing relationship (as they might have in previous generations). Third, companies had already become experienced in packaging work for outsourcing. Specifically, many commonly outsourced jobs had already been designed so that high levels of company-specific knowledge were not required in order to perform them. Finally, companies already knew how to administer temporary workers and, therefore, would not have to develop entirely new forms of paperwork to handle virtual assistants.

### Decline of the Traditional Secretary

In the first half of the 20\(^{th}\) century, managers made decisions and secretaries performed clerical activities. The bond that developed between manager and secretary was virtually unbreakable, and many a manager experienced success (or failure) as the result of a secretary’s skills. With increasing automation, however, the traditional secretary started to disappear. As Jeremy Rifkin reported:

> The number of secretaries has been steadily declining as personal computers, electronic mail, and fax machines replace manual typewriters, paper files and routine correspondence. Between 1983 and 1993, the country’s secretarial pool shrank by nearly 8 percent, to about 3.6 million, according to Harvard economist James Medoff.\(^3\)

In addition, the nature of the secretarial job had also changed. Much of the transcription work that secretaries used to perform had been replaced by time spent “acting as gatekeepers and schedulers, maintaining an orderly flow of individuals and documents through their bosses’ offices.”\(^4\) Effectively, they had become information managers for their bosses.

Taken together, these trends had two implications relevant to OFFICTECH\(^{®}\). First, they indicated that opportunity was to be found in filling the gaps left by departing secretaries. Second, and perhaps more significant, the new virtual assistants would have to become information managers for their clients. That meant that they would need to become very familiar with each manager’s personal style and the information environment in which that manager worked. Such familiarity between manager and assistant mandated the forging of some form of enduring relationship.

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Globalization

Traditionally, workers who interacted with one another on a regular basis had to be located in the same place (e.g., an office, floor, building, or factory). Increasingly, however, such proximity can be scarce when business is done on a global scale. Global companies face many challenges, not the least of which is operating across vast distances and time zones. Workers who are scattered around the world must be able to collaborate with each other and to communicate with customers in a variety of time zones during their usual business hours. By the late 1990s, employees in many companies were already relying on their technological infrastructures to access centralized databases and coordinate with colleagues who may be down the hall, across town, or around the world. The explosive growth of telecommunications and of the Internet has increased managers’ comfort with long-distance working relationships. Recent technological advances, coupled with increased acceptance of distance collaboration, mean that many companies and their managers would not be shocked to discover that their virtual assistants were located on the other side of the world. Indeed, the arrangement could easily be viewed as a plus. Such global assistants could both act as a presence for the manager and complete important tasks while he or she slept. In that way, time zones could be used to their advantage.

TRENDS IN ELECTRONIC COLLABORATION

The development of telecommunications, most notably the telephone, ushered in the age of electronic collaboration. The potential for such collaboration, however, increased dramatically with the advances in data communications during the 1980s and 1990s. Three developments, in particular, had major implications for work sharing:

- **Workgroup tools**: New software tools, built around networking technologies, emerged to facilitate the sharing and routing of electronic work.
- **Telecommuting**: A growing trend in work performance was allowing workers to use data communications and information technologies in order to work from their homes.
- **The Internet**: The Internet, and particularly the web, had established a communications infrastructure that was causing distance to become irrelevant.

Workgroup Tools

One of the major factors revolutionizing the nature of electronic collaboration was the development of tools for sharing work, commonly referred to as workgroup software. To a large extent, the workgroup application, such as Lotus Notes and Microsoft Exchange, was a child of the computer network business.

Early computer networks of the mid-1980s existed mainly to allow resources (e.g., printers and disk drives) to be shared within office environments. They offered few tools to facilitate collaboration between individuals and even fewer tools for connecting networks to the outside world. In the late 1980s, however, the introduction of Lotus Notes signaled a dramatic improvement in collaboration technology. The Notes application was unique in many ways. Unlike most PC-based applications that preceded it, it had no clearly defined central purpose. Instead, it was a loosely organized collection of tools—e-mail, workflow processing, contact management, scheduling, conferencing, communications, and document sharing—all of which revolved around the theme of supporting collaborative work. The package was also highly customizable, with a scripting language that allowed companies to use the product to automate common administrative processes, such as multi-stage document approval.

With the huge success of Notes, other workgroup software, such as Microsoft Exchange and Novell’s Groupwise, soon emerged. In addition, the explosion of the Internet into the commercial environment spurred important modifications to workgroup architectures. Early versions of Notes and other packages tended to focus on intranet work connectivity (e.g., allowing users to work with others on the same network, allowing laptop users to connect to the system via network cable, and establishing dialup connections). Subsequent revisions of each product, however, facilitated Internet work connectivity (e.g., exchanging e-mail with users in other networks, transferring documents between networks, sharing calendars across the globe). The TCP/IP protocol of the Internet was the most common means of implementing these connections across networks.
Telecommuting

One of the most dramatic workplace changes in the 1990s was the rise in telecommuting. On average, American workers who did not telecommute spent seven and a half hours a week commuting to and from work. Many companies, hoping to improve productivity and avoid fines associated with Clean Air regulations, were allowing workers to telecommute several days a week using modems, e-mail, telephones, and fax machines. An estimated 42% of U.S. companies allowed some telecommuting in 1997.5 The number of people working at home almost tripled between 1990 and 1997 and was expected to exceed 20 million by the year 2000.6 According to FIND/SVP, a business research firm, approximately 11.1 million workers did some telecommuting in 1997, a number that has been rising at 15% per year. In addition, many companies had taken this trend one step further and employed newly available workgroup and data communications technologies to become virtual organizations that required no central office space or set location. In these companies, each employee either worked at home or at the client’s location. Indeed, in 1997, more home-based businesses were started than were commercial-site-based businesses.7 The economics associated with such arrangements were often favorable when compared to traditional office-based work. By eliminating commute time and office distractions, productivity was often increased 10% to 20%. Management by objectives coupled with workgroup and specialized monitoring software often made it possible to monitor the performance of telecommuting employees just as effectively as on-site employees. In addition, expense reductions resulting from reduced need for office space, furniture, and other facilities typically more than offset any increased telecommunication expenses. With the rising acceptance of telework, a company could employ home-based workers across town or across the world.

On the supply side, the ability to telecommute was often perceived as a major benefit to potential employees. By the late 1990s, participation in the U.S. workforce far exceeded any other time in history, both in numeric and percentage terms. This high level of participation came with a price, however. Functions that had normally been performed by the “unemployed” segment of the workforce, most notably childcare and, increasingly, elder care, were now being performed by couples who both worked full time. In addition, many disabled workers found that telecommuting allowed them to enter the labor market more easily. For many individuals, the only viable alternatives to telecommuting were (a) outsourcing family responsibilities to third parties or (b) not working at all.

The Internet

Although the popular conception of the Internet is based on the familiar World Wide Web, it is actually better described as a communications backbone rather than as a specific application. In a nutshell, the Internet exists to connect computer networks together using a relatively simple set of protocols (communications standards) collectively referred to as TCP/IP. These protocols form a foundation upon which other services can be offered, such as the familiar WWW (based on http), e-mail (based on SMTP), file transfer (based on FTP), chat (based on IRC), and remote terminal access (based on telnet). Although the Internet’s existence as a backbone dates back to the 1970s, it was not “discovered” by business until the mid-1990s. At that time, graphic-based web browsers such as Mosaic and Netscape’s Navigator burst upon the scene and made it easy to see the web’s potential as a communications and marketing tool.

Although the web was a nice application, the Internet’s true potential for facilitating collaborative work only began to be realized in the late 1990s. At that time, nearly all of the popular network operating systems (e.g., Novell Netware, Windows NT, and OS/2) had become capable of connecting directly to the Internet. In addition, workgroup software (e.g., Notes, Exchange) had been redesigned to use Internet protocols. That meant that their features could just as easily be used around the globe as they had been used within the company’s local network in the past. In other words, with the right tools, users could connect with their networks and workgroups from anywhere in the world. The only major drawback to using the Internet was a significant decline in connectivity speed when compared with the local networks. But, by the late 1990s, telecommunications companies were already

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developing approaches to increasing performance—both the speed of the Internet as a whole and the speed of the dialup phone connection into the home or office.

There were three major advances that made use of the Internet for remote collaboration preferable to simply using the phone system:

- **Universal access**: There were few major business centers in the world where connections to the Internet were not available.

- **Reliability**: The TCP/IP protocol had reliability checks built into it that were not available when a typical dialup link between systems was established. The checks did come at a price (lower speed) but were much less sensitive to bad phone lines—a problem in many regions of the world.

- **Variety of applications**: Because TCP/IP was an open standard, and extremely popular, a wide range of applications (such as web browsers) had been developed to use it as a communications backbone. This meant that many off-the-shelf tools were available for Internet-supported collaboration using text, graphics, and sound.

**OFFICETECH®**

Gayle Barr, President of OFFICETECH®, founded the company in late 1997 to take advantage of the opportunity born of the intersection between the changing workforce and the introduction of new technologies for electronic collaboration. She came from a background in high-tech marketing and Web site design, with 20 years of experience running her own design and marketing firm. In addition, she had extensive consulting experience in the fields of digital imaging, computer hardware, and software, had authored numerous articles for an international trade publication, and had previously prepared comprehensive marketing campaigns encompassing product launch through data base management. Her education included undergraduate degrees in graphic design and communications and a master’s in Marketing. Her husband, Jim Barr, had acted as an advisor during the startup of the company and was an expert in corporate turnarounds and hyper-growth. He had also previously acted as CEO, President, COO, and CFO for a variety of public and private companies as well as having been a partner in several start-ups. Most recently, he had been the COO of one of the world’s largest resellers of IBM computers. His experience included redesigning entire organizations from their sales force to their financial structure and he was considered an expert in establishing strategic alliances. He had also been a contributing editor to a best selling business book and wrote a monthly column for an international publication.

**The Market for Virtual Assistants**

Despite hours of research, Barr could find no statistics on the number of people working as virtual assistants or the dollar volume of business done. She suspected that this lack of information was due to four factors:

- **Crossing SIC Categories**: Virtual assistants represent a subset of workers providing services to businesses across the many different industries represented by the Standard Industrial Classification (SIC) system used by the U.S. government, so market estimates broken down by SIC code were not useful.

- **Recent Emergence of Virtual Assistants**: The industry had arisen only recently (the oldest and best known training program for virtual assistants was only three years old). Consequently, the trend was too new to have come to the attention of firms tracking emerging issues in the economy and there were no industry analyses yet available.

- **No Clear Definitions**: Virtual assistant work could range from simple keyboarding or stuffing envelopes through work traditionally done by executive assistants. Some definitions even included Web site designers and programmers as virtual assistants.

- **Small Size**: Over 95% of virtual assistants were working alone from their homes and many worked only part-time. Due to zoning laws, they often did not apply for business licenses or phone lines and so were difficult to identify.
However, experts\(^8\) in the business services area estimated that about 18,000 firms provide secretarial services in the U.S. of which about 8% (1,440) were estimated to be doing virtual secretarial work in 1999 and this percentage was expected to grow to 15% in 2000. Another expert\(^9\) who had been working in the industry for several years and had been active in founding the International Virtual Assistant Association (a company that trains, certifies, and supports virtual assistants) estimated that about 150 people identified themselves as virtual assistants and another 400 to 500 were doing similar work, but did not use that term. She also believed that over 2,000 local business support companies were moving to provide their services globally through the use of IT.

On average, virtual assistants billed about 30 hours a week at $22.50 per hour and had overhead rates of about 10% to 12%. So, virtual assistants\(^8\) would gross an average of about $33,750 and net about $29,700. Conservatively, if there were 550 virtual assistants now, this represented a market of $16.3 million. If existing companies expanded into the virtual arena, this could easily grow to $86 million. From the demand side, because of their special support needs, home-based businesses and telecommuters were expected to be the biggest users of virtual assistants in the near future. If even 10% of the 11.1 million such businesses used a virtual assistant, that would represent over a million customers. With the virtual assistant’s average customer using about eight hours of services per week billed at $22.50 per hour, this represented a potential market of $10.3 million per year.

Over 95% of virtual assistants worked alone and built their customer bases through referrals. The next most common type of company in the industry had between two and six employees that shared the work according to their specialties. A much smaller group of firms employed a large number of specialized virtual assistants (six to 20) whose work was coordinated by a team leader. Four companies (AssistU, StaffCentrix, International Virtual Assistants Association, and the Global Association of Virtual Assistants) provided some combination of training, referrals, certification, and professional support.

It seemed clear that the market potential for OFFICETECH\(^\circledast\) was considerable so, during the company’s first six months of existence, Gayle’s primary focus was on researching typical work activity patterns to identify specific potential needs that a company such as OFFICETECH\(^\circledast\) might fulfill. By the spring of 1998, the company began the development of its initial web site (see Exhibit 1). At that time, her focus was increasingly drawn toward the practical aspects of supplying virtual office services with the technologies available.

### Potential Client Needs

Barr reasoned that OFFICETECH\(^\circledast\) could gain market share if it could provide managers with an assistant at a lower cost than a regular full-time permanent employee while—at the same time—maintaining or improving productivity. Not all business activities, however, were equally well suited for performance by virtual assistants. For this reason, her initial research efforts were focused on identifying the time spent on relatively routine administrative activities. Interviews with 210 executives indicated that approximately 48 hours each month (or 1.5 workdays each week) were spent on eight administrative tasks: message retrieval, memo writing, letter writing, report writing, meeting preparation, appointment scheduling, filling out forms, and making travel arrangements. The breakdown of these activities is presented in Exhibit 2.

Barr’s research indicated that, when all of the relevant payroll costs were included, performing these tasks cost businesses an average of $18,043 per manager per year. Further, hiring an assistant to help perform these duties would, on average, cost a company $40,991 per year (including direct and indirect payroll costs, lost productivity, and the indirect costs of equipping an employee). Based on her analysis of virtual office assistant costs, however, Barr concluded that OFFICETECH\(^\circledast\) could provide an equivalent number of productive hours at a price of $24,960 while still turning a profit (financials are available from the authors upon request). Thus, a company could potentially save $16,031 per assistant per year, if assistants were employed on a full-time basis. Perhaps even more relevant—since Barr did not believe that most contracts would be for full-time use of assistants—it demonstrated that virtual office assistants were likely to be substantially cheaper, per hour, than full-time secretaries.

The types of tasks that OFFICETECH\(^\circledast\) assistants could perform fell into three different categories: basic clerical work, special projects, and sales or marketing tasks. For managers who were swamped with work and in need of basic administrative support,

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\(^9\)Source: Christine Durst, StaffCentrix and International Virtual Assistant Association, personal communication, September 9, 1999.
assistants could retrieve and screen e-mail or voice-mail messages, write standard memos and letters, and word process from 
dictation via taped phone calls, e-mail, faxed notes, or video-conferencing. They could also do basic research, schedule meetings 
or appointments, prepare for meetings, make travel arrangements, and organize entertainment for the manager or clients including 
purchase of tickets, making restaurant reservations, and hiring transportation. Assistants who were qualified could also perform 
tasks for special projects. These included sending broadcast faxes and e-mail messages, creating PowerPoint® presentations, 
managing databases (for example, for sales contact management), developing Web sites, performing legal, medical or technical 
research using the Internet, and generating new sales leads. In addition to the above, qualified assistants could also perform 
demographic analysis to support the marketing function.

Conceptually, the range of services that OFFICETECH® could conceivably offer could be pictured on a two-dimensional grid (see 
Exhibit 3) that plots required skill versus company specific knowledge. Initially, the target tasks needed to be in the low-to-
medium skill range, and requiring low-to-medium company specific knowledge. By establishing a long-term relationship between 
client and virtual office assistant, Barr hoped to raise the level of company-specific knowledge held by the assistants. Doing so 
would gradually increase the percentage of a manager’s tasks that could be performed by the assistant.

The OFFICETECH® Concept

OFFICETECH® envisioned its virtual assistants providing companies with a way to outsource their non-core functions in order to 
focus on their core competencies. Clients would include executives, managers, sales representatives, and entrepreneurs. Virtual 
assistants would be experienced, highly skilled, and thoroughly trained administrative assistants located around the world. They 
would be of all ages, might be physically challenged, or could simply prefer home-based work to allow improved flexibility for 
study or family care. Bilingual assistants would also be available. Clients would normally contract for a regularly scheduled 
block of time. They could, however, also arrange for hourly help.

Clients would contract with OFFICETECH® to match them with a qualified assistant who would perform tasks from their virtual 
location for a rate determined by the nature of the tasks and the time of day during which they were performed. OFFICETECH® 
assistants would be screened to ensure that they had adequate clerical and computer-related skills, appropriate hardware and 
software, and satisfactory office furnishings. In addition, OFFICETECH® had developed tests for problem solving, prioritization, 
and office etiquette skills. The company would also perform a phone interview. Exhibit 4 shows the employment requirements 
for OFFICETECH® assistants.

The names of approximately three  possible assistants would be provided to each client for a phone interview. When the client 
and an assistant were found to be mutually compatible, OFFICETECH® would assign them a password for access to a secure portion 
of OFFICETECH®’s web site. Each assistant would work for up to three clients. Clients and assistants would then communicate 
through the private, secure web site using e-mail, fax, voice mail, and video conferencing or via surface mail (a.k.a. snail mail) 
and telephone 24 hours a day, seven days a week. Clients would leave work to be done on OFFICETECH®’s server to be accessed 
by their assistants. Completed products would be left on the server for the client to retrieve. If the assistant were ever to be 
unavailable, a back-up would be provided automatically. In addition, customer satisfaction was to be monitored periodically.

To facilitate the exchange of work, OFFICETECH® would provide newsgroup, private e-mail and chat room services. In addition, 
all work files would automatically be archived for backup purposes, easy retrieval and continuity in the event of a change in 
assistants or clients.

OFFICETECH® Technologies

Managers and assistants could communicate via phone, fax, or e-mail with all documents collected in a private, secure portion 
of OFFICETECH®’s server. The company’s site was hosted by a major web hosting company and Internet service provider (ISP). 
It contained links to ExecuTools OnLine’s Virtual Office Service—an Internet service that provided basic groupware facilities 
technologies (e.g., broadcast faxing and e-mail, newsgroup communications, private e-mail, and chat rooms) that could be used by clients and

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10Product name has been disguised.
assistants to share information. All documents were to be archived and stored on OFFICETECH®’s computer for continuity of
service. All virtual assistants were required to have the software tools and knowledge necessary to perform a wide variety of
administrative tasks. Some assistants would have additional skills, such as the ability to do research using Internet resources, or
to create high quality, professional presentations. Managers could leave work to be done at the end of their business day and
download a finished product the next morning. Pricing was to depend upon the nature of the work to be done and the block of
time during which it was accomplished.

Barr considered the adoption of ExecuTools OnLine’s software to be an interim solution to address their need for groupware.
The service was good, but did not allow OFFICETECH® the ability to create special-purpose templates (customized, structured
forms for such things as work orders and travel instructions) that could be used to ensure that work left by clients and performed
by assistants was complete and easy to understand. The lack of templates, however, was a relatively minor inconvenience. Of
much greater concern to Barr was the fact that continuing reliance on ExecuTools OnLine’s software could pose a serious threat
to OFFICETECH®’s long term survival. Under the existing system, clients would log onto OFFICETECH®’s web site with their
password, and then would subsequently log onto ExecuTools OnLine with a different password. Without proprietary software,
it was possible that successful client-assistant pairs could sever their ties to OFFICETECH® and use ExecuTools OnLine’s software
to continue their working relationship on their own. If OFFICETECH® could add value by writing custom software to support the
virtual office, they could tie both the clients and the assistants more closely to the company and ensure a steady stream of revenue.
Barr had already designed a new software package, but she estimated that it would cost between $30,000 and $50,000 to hire a
programmer to write it. Without proprietary software, could OFFICETECH® add sufficient value solely through the screening of
assistants, providing their supervision, and matching the clients to appropriate assistants? A related question was should they do
the matching of clients with compatible assistants by hand or design a program to perform the matching automatically?

THE DECISIONS

A number of major decisions had yet to be made. The first two were overriding decisions, namely:

1. Was the business concept itself a valid one that was worth pursuing?

2. How much should she invest in the business for software development and marketing to clients prior to achieving breakeven
cash flows?

Both of these issues had been made more complex by another turn of events that also occurred in March. Barr’s husband Jim had
been made the president of a major firm in the financial services industry—a job whose travel requirements and workload would
greatly reduce the degree to which he could assist in developing the business. Thus, it would be up to her alone to make the
business a success.

Even if the decision to continue in the business was made, a number of additional issues regarding target markets needed to be
addressed, including:

• Should OFFICETECH® target small businesses that might not have the cash flow or amount of work required to justify hiring
  a permanent administrative assistant?

• Should they focus on organizations that were understaffed for their workload?

• Should they focus on providing support for temporary or unusual projects?

• Would their best market be organizations with operations that spanned several time zones?

• Should they focus on businesses in a particular industry?

Once a market focus was established, how would she attract and supervise a competent sales force to sell the service to clients?
She had already prepared a sales presentation and a database of customer contacts, but the sales people would work from the field,
so she would not be able to monitor them. Without the ability to monitor, Barr was uncomfortable providing a salary; instead
she was offering a 25% commission on the first three months of revenue received from each client that signed up. So far, however, she had not been successful in attracting sales people.

Barr was certain that, with the right choices, OFFICETECH® could be a major success. Indeed, she was equally certain that the OFFICETECH® concept would one day be considered as normal in business as hiring a temp. What was less clear was the best path to success. Moreover, like any reasonable individual, she worried whether an undercapitalized upstart like OFFICETECH® could expect to become the leader in a major new industry that did not yet even exist.

Exhibit 1
OFFICETECH® Web Page
Exhibit 2
Breakdown of Routine Administrative Tasks

<table>
<thead>
<tr>
<th>Task</th>
<th>Time/Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message retrieval</td>
<td>440 min</td>
</tr>
<tr>
<td>Memos</td>
<td>440 min</td>
</tr>
<tr>
<td>Letters</td>
<td>880 min</td>
</tr>
<tr>
<td>Reports</td>
<td>540 min</td>
</tr>
<tr>
<td>Meeting Preparation</td>
<td>240 min</td>
</tr>
<tr>
<td>Appointments</td>
<td>150 min</td>
</tr>
<tr>
<td>Forms</td>
<td>100 min</td>
</tr>
<tr>
<td>Reservations</td>
<td>80 min</td>
</tr>
<tr>
<td>(travel, hotel, entertainment)</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,870 min = 48 hrs</strong></td>
</tr>
</tbody>
</table>

Exhibit 3
Diagram of OFFICETECH® Target Tasks

- High Company-Specific Knowledge
  - Screen E-mail or Voice-mail
  - Technical Research
  - Prepare Presentations

- Low Task-Specific Knowledge
  - Word Process from Dictation
  - Manage Databases
Exhibit 4
OFFICETech® Employment Requirements

DESIRE, ABILITY, AVAILABILITY, FLEXIBILITY, INTEGRITY, PROFESSIONALISM

A. OFFICETech® prides itself on providing the highest level of service to its clients. Our clients are very demanding and will not accept anything less than the highest level of achievement. Customer Satisfaction is our Number 1 Priority. For that reason, we are very selective in choosing our “Virtual Assistants.”

B. COMPUTER LITERACY—You must have at least 6 months of computer experience. Knowledge of word processing (60 WPM), know how to surf the internet and have an understanding of the Windows 95 operating system are all a must. Now that wasn’t so bad, was it?

C. COMPUTER HARDWARE—You must have a 486 MHz computer or higher, 1.6 GB Hard Drive, 16 MB of RAM, CD-ROM Drive, 3 1/2" Disk Drive, Monitor, Minimum 14.4 K bps fax/modem, printer and fax machine or fax software capability. If you don’t have at least this, we need to talk.

D. COMMUNICATIONS—You must have a dedicated telephone line for voice and data transmission. It’s not all that expensive. If you want to get in the game, it’s a small price of admission to be in business.

E. SOFTWARE—You must have Windows 95 Operating System, Word for Windows, version 6.0 or higher or Word Perfect, version 6.0 or higher. OPTIONAL—Lotus 123, version 5.0; Excel, latest version; PowerPoint, version 6.0 or higher; Microsoft FrontPage98; Goldmine; Scheduling software.

OFFICE FURNISHINGS—You must have a desk, filing cabinet and storage for office supplies. We just want you to be comfortable, in quiet surroundings (please) and have a business-like work environment.

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