



WHAT WORKS: TARAHAAAT'S PORTAL FOR RURAL INDIA

KEY TOPICS: portal; village Internet center network; franchise model; fee-for-service; local content-driven.

THE TAKE-AWAY: TARAhaat is an Internet portal supporting a network of franchised village Internet centers in rural India. It delivers a wide range of social and economic information, as well as educational and other services, earning revenues through fee for service, membership fees, and commissions. The locally-relevant content—from market prices to marriage opportunities to educational material—is what drives the model at the village and peri-urban level. TARAhaat hopes to stimulate employment and economic opportunities in the communities it serves.

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EXECUTIVE SUMMARY

TARAAhaat is a business enterprise of Development Alternatives (DA), an NGO focused on sustainable rural development in India, and its marketing arm, Technology and Action for Rural Advancement (TARA). TARAAhaat uses a franchise-based business model to bring computer and Internet technology to rural regions and plans to use these technologies to create revenue streams leading to financial viability for itself and its franchisees.

BUSINESS MODEL

The business combines a mother portal, TARAAhaat.com, with a network of franchised village Internet centers, or TARAAkendras. TARAAhaat will deliver education, information, services, and online market opportunities to rural consumers via the Internet and its kendra outposts. It also hopes to provide a cost-effective gateway by which larger corporations can reach rural customers. It will offer information, e-mail and Web services, and eventually e-commerce and fulfillment services, earning revenues through membership fees and commissions.

These business objectives are balanced with the social objective of uplifting rural India through easy access to relevant local and global information and propelling it into the twenty-first century. TARAAhaat also hopes to find the right balance of rural and peri-urban franchises to be able to subsidize rural locations with lower earning potential. It encourages innovation by its franchisees and seeks to assist entrepreneurs in developing businesses using its services.

INFRASTRUCTURE

Where possible, TARAAhaat will use existing telephone lines to connect its franchise Internet centers. But it also plan to install VSAT links where necessary to provide connectivity, utilizing satellites operated by others. Thus TARAAhaat is largely dependent on India's existing commercial infrastructure, which is less than ideal. Dependence on the satellites has already caused interruptions in service for some franchises, and is a relatively high-cost solution. Connectivity, and bandwidth capable of supporting a graphics-rich Internet experience, are likely to remain in short supply for the near future, posing a continuing challenge to the venture. In addition, electric power outages are frequent, so much so that the company provides a diesel-powered generator as part of the franchise infrastructure, adding considerably to costs and maintenance needs.

CONTENT

One factor that bodes well for success is the company's flexibility in developing its products. TARAAhaat has shown high sensitivity to customer needs, allowing products to evolve to meet these needs. For example, TARAAgyan products, TARAAhaat's education offerings, came into being only recently to address the strong demand for computer and computer-based education in the initial customer base. In addition, each franchise has latitude in developing products and services that meet local market needs. TARAAhaat hopes to create a brand image in which the local TARAAkendra is seen as the place for a family to find products aimed at the entertainment, information, and commercial needs of each member. The company provides content in two local languages as well as English, and expects to provide content in other local languages (India has 18 official languages) as well.

POLICY

India's telecom regulatory policies are improving, but fall short of fully open competition. As a result, prices are relatively high and service is generally quite poor, especially in rural areas. Since TARAAhaat is largely dependent on commercially available infrastructure, this poses a substantial long-term challenge to the venture. The com-



pany has off-line revenue sources from education to develop the market pending infrastructure improvements. The company faces no major regulatory hurdles.

HUMAN CAPITAL

TARAhaat provides extensive support for its franchisees, including assistance with financing, Internet connections, business and IT training, and marketing. It plans to create a TARA university for franchisee training. Many franchises offer computer or other IT classes. Nonetheless, illiteracy among many of its intended customers poses continuing challenges to its business strategy.

ENTERPRISE

TARAhaat's association with Development Alternatives brings a wealth of rural expertise and a resilient attitude towards overcoming all hurdles. Some of the initial challenges described in this report have been handled with creative solutions, both at the franchise level and at the enterprise level. However, the venture has substantial financing needs and faces long-term challenges relating to product development and franchise operations that still await resolution. Unlike many startups, however, its management team is seasoned and strong.

KEY LESSONS

Interviews with users of TARAhaat's services demonstrate the venture's social benefits, including empowering the education of girls, inspiring confidence and higher aspirations among rural children, and enabling farmers to gain market information and substantially higher prices for their crops.

The staying power of TARAhaat's business model is not yet proven, but the positive customer response is an early indication of viability. The venture's franchise model seems likely to harness local entrepreneurial energies to the benefit of both. Its emphasis on locally-relevant content, in local languages, and strong orientation to product development based on customer feedback is also an important characteristic, one that takes advantage of India's large rural middle class. Finally, the company combines both commercial and NGO characteristics, potentially giving it an advantage in pioneering the relatively risky Internet market in rural India, and is unlikely to face major competition in the near future.



CATALYZING RURAL DEVELOPMENT: TARAHAAT.COM

COMPANY PROFILE

TARAhaat is an e-business created to bring the benefits of the Internet to India's rural population. The business combines a mother portal, TARAhaat.com, with a network of franchised village Internet centers, or TARAkendras. TARAhaat will deliver education, information, services, and online market opportunities to rural consumers via the Internet and its kendra outposts.

TARAhaat was born in 1999 as a partnership between Development Alternatives (DA), an NGO focused on promoting sustainable development in India, and its rural marketing arm, Technology and Action for Rural Advancement (TARA). DA and TARA (collectively known as the DA Group—see Appendix 1 for a chart showing DA Group organizational structure) are mature organizations with 400 employees and nearly 20 years of experience working in rural India, in particular the resource-deficient and commercially-poor Bundelkhand region. DA is the R&D brain of the organization, developing innovative products and technologies for rural markets, such as cost-effective building materials, handmade recycled paper, energy-efficient wood stoves, clean drinking water and sanitation facilities, and energy systems. TARA then commercializes these products, and when possible, transforms them into sustainable livelihoods for rural people. DA and TARA created TARAhaat with the belief that, by harnessing the power of Internet, TARAhaat will enable the entire DA Group to more effectively bring sustainable jobs, useful information, and economic opportunities to rural Indian populations.

Company Goals and Objectives

TARAhaat will pursue a mix of business and social objectives. The DA Group is firmly committed to the notion that “development has to be good business.” Consistent with this philosophy, TARAhaat has been created as a commercial entity, and is registered in India under the Companies Act. Management is clear that TARAhaat can and should be a profitable enterprise. However, TARAhaat's NGO roots and an ownership structure that allocates a 51 share to the nonprofit Sustainable Livelihoods Foundation will ensure that social objectives are not overlooked.

Business objectives

TARAhaat intends to be the leading supplier of online information, services and market opportunities, as well as computer-enabled education, to the rural Indian market. By establishing a network of online outposts in the rural market and providing needed services, TARAhaat hopes to tap both the substantial buying power of the rural Indian populace and corporations' interest in these markets.

Social objectives

TARAhaat's overarching social objective is the creation of sustainable rural livelihoods and the enrichment of the rural Indian economy through improved information flows, education, and direct job creation. In addition, TARAhaat will address a number of social issues including women's health and education, governance, and resource conservation, primarily by providing relevant and easily accessible information on its Web site.

Though provision of such information will not bring in immediate revenues, TARAhaat believes that the customer traffic and goodwill generated, as well as TARAhaat's duty to be a good corporate citizen, justify investments in the public good. There is also a real possibility that the cost of many public benefits can be recovered from government or private philanthropic agencies whose mandate is to provide such benefits.



Current State of Operations

TARAhaat is currently in the pilot stage. The first kendra was launched in September 2000 near the city of Jhansi in the Bundelkhand region. Subsequently, TARAhaat opened three additional kendras in Bundelkhand and seven kendras in the Bathinda district in the state of Punjab. TARAhaat has only just begun to create its kendra network—the company plans to open nearly 47,000 kendras by Year 6.

The pilot kendras are operating with varying degrees of functionality. A significant disruption came in March 2001, when TARAhaat lost satellite Internet connectivity due to a change in regulatory requirements for satellite service providers. Three of the four kendras near Jhansi, where dial-up connections are largely unavailable, lost Internet capabilities. Though the Jhansi sites have not shut down, they are currently offering only offline products and services. All of the kendras in Bathinda have been using dial-up connections. TARAhaat expects satellite Internet connectivity to be restored by the end of July or beginning of August 2001.

The two pilot regions, Bundelkhand and Bathinda, represent different cross-sections of rural Indian society. Bundelkhand, whose economy is based primarily on subsistence agriculture, is among the poorest regions in India. The areas around Bathinda are comparatively affluent and support more commercial activity. The choice of such disparate pilot locations was intentional, as it allows TARAhaat to test its concept in very different social and economic conditions.

Products and Services

TARAhaat is in the process of developing a range of online and offline products to be offered in TARAhaat kendras. A philosophy of “fluid product development” guides these efforts, the implications of which are twofold. First, TARAhaat management does not indelibly commit to what products it will develop or how it will prioritize its efforts in the future. It believes that the market for TARAhaat’s products is as of yet too immature to allow reliable predictions of consumer demand, dictating that TARAhaat’s development plans remain flexible and highly responsive to consumer feedback. Second, TARAhaat management intends to allow franchisees considerable latitude in developing offline products, believing that multiple revenue streams and the franchisees’ entrepreneurial creativity are critical to the financial viability of the kendras and, in turn, to the financial viability of TARAhaat.

TARAhaat’s products are still in relatively early stages of development, and those available to customers in the pilot kendras are in incomplete form. The following discussion will describe products and services both as they are today and as TARAhaat intends them to be over the next few years. Revenue streams associated with products will be described, but specific figures for the size and growth of revenues are reserved for Section 4.

TARAgyan

Computer-enabled education courses are currently at the center of TARAhaat’s product development efforts, and are expected to be the largest single revenue generator for the company and its franchisees over the next several years. The focus on education has emerged over the past few months in response to strong consumer demand for these services in pilot site regions: though TARAhaat has not yet released its course materials, already 170 students have signed up in TARAkendras around Bathinda for ad hoc IT courses taught by franchisees. Projections of student volumes are presented in Table 1.



Table 1. Student Enrollment

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number of Students	12,094	184,695	647,595	1,303,665	2,085,479	2,849,265
Students per Kendra	37	44	48	57	61	60

Notes: Student numbers are on a per-year basis; year 1 begins April 2001

Source: TARAhaat financial projections

TARAhaat intends to offer courses on a wide range of subjects, though strong emphasis will be placed on courses that provide job skills and training relevant to rural and semi-urban customers. TARAhaat recently completed a basic IT course, and intends to add an English-proficiency course and a number of vocational courses, such as textile cutting, plumbing, and TV repair, within the next year. The goal of the course offerings is to train rural people to find jobs in one of four settings: self-employment, employment in local factories, shops, hotels, etc., distance employment (being employed locally by a company in a distant location), or white-collar employment in cities. TARAhaat expects the first setting to absorb the largest number of rural students, and the last setting to absorb the least.

TARAhaat and the franchisees each play a role in the provision of courses. TARAhaat is responsible for the creation (either in-house or outsourced) of written and computer-based course materials in users' native languages, currently Hindi or Gurumukhi. TARAhaat provides these materials to franchisees, who then promote the courses in their local areas and enroll students. Franchisees may also teach the courses, but in most cases so far they have employed outside educators for this purpose.

Education revenues will be split 60/40 between the franchisee and TARAhaat¹. TARAhaat will also earn revenues for providing course materials, primarily books and CDs, to students and for providing certificates of course completion.

B2C Activities (TARAhaat.com)

Creation of the TARAhaat.com portal is the second major element of current product development efforts. The Web site, set as default homepage on TARAkendra computers, will be TARAhaat's primary vehicle for transmitting information and interactive online services to kendra users. The Web site incorporates strong visual and audio content to make it accessible to rural Indians who cannot read. The current TARAhaat.com homepage appears in Appendix 4.

TARAhaat is designing its online content and services to meet both the "needs" and "wants" of rural users. To identify these needs and wants, TARAhaat both tapped the knowledge and insights of DA and conducted consumer research, including organizing a workshop with Jhansi members of the National Youth Cooperative and utilizing a UNDP socioeconomic survey of 10,000 rural families in the Niwari region. Based on its findings, TARAhaat is developing 18 "channels" of content on such subjects as health (especially women's health and child care), government schemes (programs for literacy, agriculture, women, employment, insurance, and so on), livelihoods (ways to start a small business, information on micro-credit, and the like), agriculture, education, e-governance, shelter, law, women, kids, entertainment, matrimony, astrology, and more. All information on the TARAhaat.com Web site will be available in English and local languages. Content will be a mix of country-wide and region-specific information; health care information, for instance, will be the same for all users, while local news, job postings, and commodity prices will, by necessity, vary by region. To date TARAhaat has created approximately half of its total intended content.



In addition to static information, TARAhaat's Web site will provide a platform for variety of interactive services and transactions. Besides basic e-mail, chat, and bulletin boards, kendra users will be able to request land records, obtain government redressal forms, submit complaints to local government officials, schedule doctor's appointments, post local jobs and ads, check daily local commodity prices, and request advice from agriculture specialists, doctors, career counselors, and other experts.

In the coming years TARAhaat will extend its online services by adding e-commerce capabilities to its Web site. TARAhaat intends to offer a variety of DA developed goods, particularly DA's popular shelter products, agriculture products such as seeds, fertilizers, and pesticides, and durable goods such as bicycles, refrigerators, and other items that are difficult to procure in rural locations. Some franchisees are already selling DA shelter products at their kendras, though the transactions are not yet conducted online. A yet-to-be-developed sister portal, TARAbazaar, will provide B2C and C2C services connecting urban or overseas customers directly to rural craftspeople.

TARAhaat will generate revenues from its portal by way of paid memberships and commissions on the many interactive online services and transactions outlined above. A regular membership buys access to restricted content and services on the TARAhaat.com Web site while premium membership adds a TARAcad (a photo ID SmartCard) that can be used for online and offline transactions. TARAhaat will keep an upfront registration fee and all commissions on services provided. Members will also pay an annual membership fee, which will be split 50/50 between TARAhaat and the franchisees. Additionally, the Web site will generate revenues for franchisees by motivating general Web surfing, which is paid for on an hourly basis by members and non-members alike. Franchisees are also encouraged to create or collaborate on creating online services and to share commissions for those services.

B2B Activities

TARAhaat management believes the company's growing network of kendras has the potential to be of significant value to multinationals, large national corporations, and local dealers looking for a channel into the rural Indian market. B2B services under development include advertising and marketing, data mining, Web hosting, and supply chain management.² TARAhaat will receive fees for these services, a portion of which may be shared with the franchisees.

On a more local level, TARAhaat will offer consulting services to individuals wishing to start technology-based mini-enterprises made possible by the information provided in TARAgyan courses and on the TARAhaat.com Web site. Freelance "barefoot consultants," called TARAgurus, will offer personalized mentoring and access to TARAhaat's finance, marketing, and technology support services. Advisees will pay TARAgurus for their services, with TARAhaat taking a commission.

Franchisee Support Services

TARAhaat will devote considerable energy to supporting its franchisees. Through an extensive staff of network support professionals,³ it will facilitate access to financing, connect kendras to the Internet, provide business and IT training, augment local marketing efforts, and otherwise give the support needed to make TARAKendras commercially viable. TARAhaat will charge an annual franchise fee based on the number of computers in the kendra to offset these support costs.

Franchisee-Developed Services

As indicated earlier, TARAhaat will allow its franchisees considerable freedom in developing additional, mainly offline, services that contribute to the user base and financial health of the kendra. Potential offline services



include but are not limited to concessions, copying, printing, faxing and other business services, computer games, Web camera photos, and independently-developed education courses. TARAhaat hopes its franchisees will use this freedom to turn their kendras into multi-purpose community and business centers.

One enterprising franchisee, for example, learned from discussions with local parents that the parents wanted their daughters to learn how to cook. The franchisee now offers a cooking class at her kendra. While this may seem unrelated to computers, some of these girls visit the computer room after their cooking lessons and are encouraged to use the computers and surf the Internet. The franchisee thus earns revenue from the class fees and generates interest in future IT courses and computer use.⁴ Though in most cases TARAhaat does not intend to take a percentage of kendra revenues generated in this manner, management realizes that the overall financial health and consumer draw of the kendras is critical to TARAhaat's long-term viability.

Key Suppliers

The content and back-end technology requirements of TARAhaat's education, Web site, and other product development initiatives are substantial, and could easily overwhelm a small start-up organization. Consequently, TARAhaat works in alliance with a large number of partners, outsourcing all activities that can be competitively done by others. For content, TARAhaat relies on a wide range of partners, including All India Institute of Medical Sciences (AIIMS) for health issues, Indira Gandhi National Open University (IGNOU) for distance learning, Agri-Watch for agriculture news and information, and a host of newspapers and freelancers for local news and information. All back-end Web site services are outsourced to a company called 4CPlus. TARAhaat is also in the process of establishing supply arrangements with key Internet connectivity and computer hardware providers.

TARAhaat Management

A team of approximately 25 people has been assembled to oversee TARAhaat's early product and franchise development efforts. In contrast with many dot com start-ups, TARAhaat's management is mature and experienced. CEO Ashok Khosla is also president of DA and TARA. COO Rakesh Khanna, CFO Ranjit Khosla, and individual product heads all have extensive business experience. Brief backgrounds of key TARAhaat managers are included in Appendix 2.

Early appointments to TARAhaat's board of directors were Dr. Arun Kumar and Mr. George Varughese, Vice Presidents of Development Alternatives, and Air Vice Marshal S. Sahni, Vice President of TARA. They will provide advice, especially regarding social objectives, and develop synergies with the DA Group. These appointments also bring aspects of the DA Group culture to TARAhaat. Perhaps the most notable aspects of this culture are "no excuses," "just do it," and "we will persist" attitudes—all phrases heard repeatedly in interviews with DA Group management.

MARKET ANALYSIS

The Rural Indian Market

TARAhaat management believes strongly in the untapped commercial potential of the rural Indian market. This market's most obvious feature is its sheer size. An estimated 75% of India's people live in rural areas, making for a market size of about 750 million people distributed across 600,000 villages. Though 350 million of these people are desperately poor and survive only at subsistence level, the remaining 400 million are economically better off due to a combination of 11 years' favorable monsoon conditions, increased agricultural yields, and a rise in rural mini-industries.

India's National Council of Applied Economic Research (NCAER) estimates that of these 400 million people,



more than 200 million, a number roughly equal to India's urban population, are active participants in the modern economy. By this, the NCAER means that these 200 million people have enough disposable income to purchase (in some cases independently; in others, collectively) a few modern goods and services such as bicycles, water pumps, radios, kerosene lanterns, and more recently, tractors, motorbikes, TVs, and refrigerators.⁵ Rural purchasing power is apparent in that rural India accounts for a sizable percentage of the markets for many consumer goods sold in India. According to the NCAER, rural India comprises 50-60% of the market for motorcycles, 40-50% of the markets for wrist-watches, black and white TVs, cassette recorders, and mopeds, and 20-30% of the markets for color TVs and refrigerators.⁶

IT Development in India

India's IT infrastructure development has lagged behind that of comparable developing countries. Teledensity in India is still only about 2.5%⁷; China, in contrast, reached a teledensity of 10% in 2000.⁸ Internet penetration is likewise low. There are fewer than one million Internet subscribers in India, and only 3.2 million Internet users. The numbers, however, are expected to grow rapidly with forecasts predicting 35 million Internet subscribers and 100 million Internet users by 2008.⁹ The expansion of cyber-cafes in urban and rural areas is expected to play an important role in increasing the number of Indians online.

Though India's government appears to have awakened to the necessity of promoting IT infrastructure development and has implemented a number of reforms which should improve the situation, bandwidth will continue to be a severe constraint in the near future. A major cause of the bandwidth problem is the fact that the state-owned telephone monopoly, Videsh Sanchar Nigam Limited (VSNL), will control the allocation of bandwidth over international lines until 2004. Wireless technologies should help to circumvent landline problems to some extent.

As is typical of IT development patterns across the globe, Internet penetration in rural India has lagged penetration in urban areas. Of all available Internet connections, 90% are in India's 20 largest cities.¹⁰ This can largely be attributed to poor rural telephone and power infrastructure. Only 370,000 of India's 600,000 villages have phone lines, though the spread of public call offices (PCOs) is rapidly increasing the availability of phones in rural villages.¹¹ The challenges presented by poor rural IT infrastructure will be discussed in more detail, as will TARAhaat's use of Very Small Aperture Terminal (VSAT) satellite connectivity and other technologies to overcome these challenges.

TARAhaat's research and the experience of the pilot kendras suggest that demand for Internet access and IT education exists among rural Indians, despite lack of prior exposure to computers or other aspects of the IT world. Influencing this demand, perhaps, are the much-publicized successes of IT-educated Indians who have struck it rich in India and elsewhere. When a very young student in an IT course at one of the Bathinda pilot kendras was asked why he was taking the course, his response was that the whole world is being computerized and that his generation will need computer skills to have any chance at a decent job. Such indications lead TARAhaat management to believe that, if given the opportunity, rural Indians will eagerly incorporate computers and the Internet into their lives.

TARAhaat's Target Markets and Roll-Out Strategy

TARAhaat is targeting villages and towns in India with populations of less than 500,000 and does not plan to establish a presence in larger cities. This criterion only eliminates 75 million people, leaving TARAhaat with an aggregate market of 945 million people. The company has segmented this market into five different "habitats" based on population size. These habitats are, from largest to smallest, cities (pop. below 500,000), block towns (pop. 15,000 - 50,000), large villages (pop 5,000 - 15,000), medium villages (pop 2,000 - 5,000), and small villages (pop < 2,000). The first two habitats are collectively labeled peri-urban markets; the last three are collectively



labeled rural markets. Each kendra will have catchment area with a five-kilometer radius and, depending on the habitat type, may serve several small villages or only a portion of a larger peri-urban market. Given the large number of villages that fall into the rural market category, TARAhaat estimates that each kendra will serve an average of four villages. Projected user penetration rates within each catchment area are based on a number of factors, including local demographics such as age, education level, and buying power, distance to other kendras, and availability of services that may substitute for those offered at TARAKendras.

In the early years of operations TARAhaat will concentrate its efforts in the peri-urban markets and large villages, where there are greater concentrations of people in the upper and middle income classes. Though TARAhaat is partially guided by its social objectives, serving very poor populations is not viewed as a prudent goal. Rather, TARAhaat's target is the 200 million rural "participants in the modern economy" described earlier. Only in the later years, when TARAhaat has achieved financial stability, will the company establish kendras in small and medium villages with low potential for profitability. At that point, TARAhaat expects to use profits from larger markets to subsidize establishment of kendras in these smaller markets. Table 2 shows TARAhaat's kendra roll-out schedule and projected user volumes.

Table 2. Kendra Roll-Out Schedule

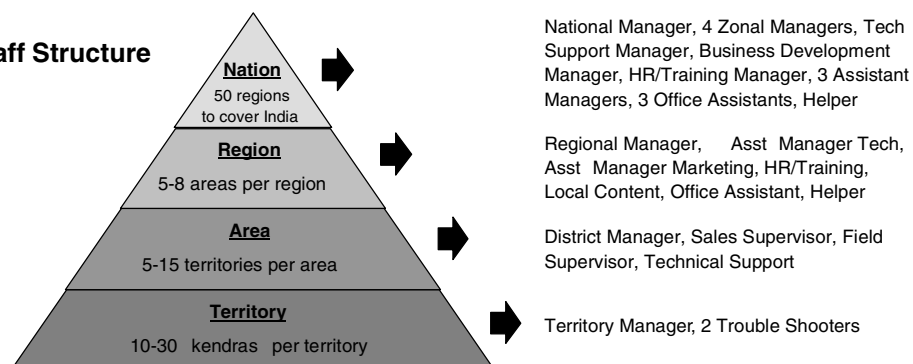
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number of Kendras	328	4,165	13,525	22,725	34,226	47,350
Number of Users	161,820	2,811,480	10,266,500	20,022,000	34,153,100	53,569,000
Users per Kendra	493	675	759	881	998	1,131

Notes: User numbers are on a per-year basis; Year 1 begins April 2001
Source: TARAhaat financial projections

The five habitats that comprise TARAhaat's target market have different size, demographic, socio-economic, and competitive characteristics. To address the different needs of these habitats, TARAhaat management has created five distinct kendra models, named Type A through Type E, one for each habitat type. The kendra models differ mainly in number of computers per center (for example, kendras in cities will have 5-10 computers; kendras in small villages will have only 2-3 computers), but also in number of business support services (such as copying and faxing) and other offline services offered.

To manage its expansive network of franchised kendras, TARAhaat will employ decentralized network support staff who will be responsible for developing, training, managing, supporting and servicing the franchises within their domain. The network support staff will assume the pyramid structure depicted in Figure 1.

Figure 1. Network Support Staff Structure



Human Capacity Constraints

Though TARAhaat is not targeting India's most deprived rural inhabitants, human capacity constraints, both among users and among franchisees, will pose a challenge. Among users, illiteracy, limited or no experience with computers, and low disposable income are the greatest obstacles. Illiteracy in India is approximately 45%, though rates vary by region. In the Bundelkhand region, one of the poorest areas in India, illiteracy is as high as 55%, whereas in the more affluent areas around Bathinda, illiteracy it is 35%. Illiteracy is also concentrated in the older generations—about 80% of children in Bundelkhand and 90% of children in Bathinda attend some school and achieve basic literacy.¹² TARAhaat intends to make its Web site accessible even to those who cannot read through voice-enabled software and an intuitive, graphics-intensive user interface. It should be noted, however, that though TARAhaat is investing in these features, management does not believe that illiterates will comprise a significant portion of its users, at least in the early-adopter phase. Rather, TARAhaat will focus on the educated rural masses in the near term, and illiterates will be drawn in for services such as voice controlled email or vocational courses as computer and internet awareness increases in rural areas.

Many of the customers visiting TARAhaat's pilot kendras in Bundelkhand and Bathinda are first-time computer users. TARAhaat's graphics-intensive Web site plays an important role in helping users quickly find needed information on the Internet. Additional assistance is provided by franchisees, who TARAhaat has taught to demonstrate such basics as setting up an e-mail account and accessing the Web. Kendra customers may also enroll in basic computer courses developed by TARAhaat or by the franchisee. TARAhaat has found that Microsoft Paint courses are a particularly effective and popular means of introducing customers to using a mouse and navigating program menus.

TARAhaat addresses the problem of low disposable incomes in part by using a shared-access Internet center business model. This model, which has been deployed extensively in developing countries, spreads computer hardware and connectivity costs across a wide user base. As described in the TARAhaat business plan, kendras sell computer and Internet use to rural India in affordable "sachet packets."¹³ To further work around income constraints, TARAhaat management plans to keep its Internet use and education prices low (relative to prices for comparable services in urban locations), and implement payment plans that spread costs across multiple months for more expensive services.

Among franchisees, lack of business and IT skills and limited start-up capital are the greatest obstacles. TARAhaat is addressing skill deficits through careful selection of franchisees and extensive training. Its management has crafted an extensive list of attributes for which potential franchisees are assessed, including age, educational background, family reputation, fluency in English, financial resources, and entrepreneurial spirit. Once hired, franchisees are given one month of business management and IT training and have access to TARAhaat's local network support staff for ongoing assistance.

TARAhaat intends for its franchisees to cover the bulk of the costs associated with establishing their kendras. These costs include purchase of computers and peripherals, VSAT dishes, furniture, power supply equipment, and rent, among other expenses, and can range from a few thousand to several thousand dollars depending on the size of the kendra. To help franchisees obtain start-up capital to make these purchases, TARAhaat assists them in securing bank loans—for example, by grouping TARAkendas within a region to establish collective bargaining power. In the Bathinda region, a local government initiative under the auspices of the District Rural Development Agency (DRDA) provides loan subsidies to help TARAhaat franchisees acquire start-up capital.

Marketing

At the root of TARAhaat's efforts to grow the markets for its products and services is the usability of its Web site and the provision of content in English, Hindi, and other local languages such as Gurumukhi. These fea-



tures dramatically widen TARAhaat's potential customer base. They are particularly critical in rural markets, where prior exposure to computers and English fluency are rare as compared to India's cities.

Formal marketing efforts will take place at both the corporate and the individual kendra levels. TARAhaat management has planned for marketing expenses of approximately \$500,000 in early years growing to \$1 million by year six, much of which will be dedicated to building the TARAhaat brand. As CEO Ashok Khosla states, TARAhaat intends for its kendras to be the "swankiest" addresses in town. To a degree, TARAhaat will have an early leg-up in its brand-building efforts thanks to its association with DA and TARA, which are well known to rural people in the Bundelkhand region and to certain national government bureaucrats.

Kendra-level marketing efforts will aim to generate public awareness of the kendra and its services, drive course enrollment, and drive traffic to the TARAhaat.com Web site and to the Internet in general. Marketing efforts begin on the day the kendra is inaugurated; local newspapers and officials are invited, and large crowds turn out. Ongoing marketing efforts are largely left to the discretion of the franchisees, who are proving quite resourceful in this regard. The Datia franchisee organized a quiz contest with free basic computer training as the prize. In the Bathinda region, announcing the opening of a TARAkendra or new course offerings on the public address system in the local place of worship has proven effective. Other methods include newspaper inserts, posters, informing village headmen and local teachers, and reaching out to youth clubs.

Competition

TARAhaat will face little competition from private sector companies in smaller rural markets, either for education or for provision of online access and services. In larger rural markets, notably the peri-urban cities and towns, there may be competition from local cyber-cafes or IT training centers. Against such local threats, TARAhaat plans to differentiate itself by using superior VSAT connectivity (most local cyber-cafes have dial-up connections), provision of multiple services in one location, the functionality and usability of the TARAhaat.com Web site, and affordability. TARAhaat's target rural markets will likely fall below the radar screens of large, urban ISPs and IT educators, who have not voiced intentions to pursue them. A senior executive from NIIT, India's leading provider of IT education, for instance, specifically stated that the company intends to retain its urban focus.¹⁴

In some regions, TARAhaat may face competition from federal or state government-sponsored Internet center initiatives. The most notable of these is the Gyandoot e-governance project in the Indian state of Madhya Pradesh. This project, which began in January 1999, has led to the establishment of 31 rural Internet kiosks linked via an intranet to a central server maintained by the state government. Though the content available at these kiosks is more limited than the content available at TARAhaat's kendras, the kiosks do enable users to check local commodity prices, request copies of land records and other government certificates, and submit public grievances to local government officials.

India's Ministry of Information Technology (MIT) is sponsoring the creation of similar community information centers in India's northeastern states. These centers, which will provide Internet access and IT training, have been established in 38 locations thus far, and plans call for a total of 486 locations. According to an MIT official, the Indian government is eager to find commercial or NGO partners to manage the establishment of these centers, indicating that they represent more of a partnership opportunity than a competitive threat to TARAhaat.

MANAGEMENT AND OPERATIONAL CHALLENGES

TARAhaat's operational challenges broadly relate to infrastructure development at the franchise level, product development at the enterprise level, and management skills required at both levels. Currently, franchise-level challenges are the more immediate concern as TARAhaat works to improve profitability of its small number of



pilot TARAKendras. Enterprise-level operations are well-managed by the team in place, but future network expansion will necessitate extensive operational planning.

The challenges involved in setting up and operating a TARAKendra franchise profitably vary depending on type and location. Infrastructure has been easily available in peri-urban regions around Bathinda, whereas obtaining basic electricity and connectivity has been a serious obstacle in rural regions around Bundelkhand. Local social environments have posed challenges to individual TARAKendras as well, necessitating skillful community relations. TARAhaat has found solutions for most of the challenges faced so far and is determined to do whatever it takes to help its franchisees succeed.

Product development remains an urgent challenge both for current operations as well as for the growth phase. TARAhaat business strategy, which involves drawing end customers to its kendras using a mother portal in local languages with localized content, requires extensive content development. Technical difficulties in creating local language content, diverse sets of customer needs in different regions, and devising creative ways to make the Internet accessible to illiterate customers have been the primary challenges for TARAhaat's product development team.

Current management is sufficient for the start-up phase, but the company will need a large infusion of additional talent to manage its planned growth and to build the national brand that is the basis for several of its revenue projections. Currently, franchisees are handpicked by TARAhaat's regional managers and seem capable of developing their franchises into profitable entities in a market largely free of any competition. However, as rapid growth plans begin to take shape and local competitors begin to crop up, TARAhaat will need standard procedures for selecting and developing capable franchise owners and managers. Maintaining quality control of the franchises and providing cross-learning opportunities, such as seminars where franchisees share ideas and experiences, will be big operational challenges for regional management.

Infrastructure

Electricity

Prolonged, scheduled and unscheduled power outages are a normal state of affairs in Bundelkhand region. The TARAhaat solution is to include a diesel-powered generator as part of franchise infrastructure.¹⁵ However, maintenance of these generators is an added expense and at times beyond the capabilities of the franchise operator. During the field work for this study, the Punavali TARAKendra near Jhansi was in the middle of a 12-hour power outage and its generator was out of commission with a leaky radiator.

The capacity of the standard 5KW generator far exceeds the power requirements of a TARAKendra. This excess capacity has not escaped the keen entrepreneurial instincts of the franchise owners. In Datia near Jhansi, the TARAKendra owner is planning to provide neighboring shop owners with enough power to run a fan and one electric bulb during daytime power outages. This can bring in enough revenue to cover his diesel cost.

A more ambitious plan to overcome electricity problems in remote villages involves setting up village-level DESIpower units, which can be owned either by the franchisee or the local community. DESIpower is an environment-friendly power plant technology developed by DA and TARA that uses the bark of an abundantly available local plant to generate enough power to meet the needs of a small group of buildings. It could be used to power a TARAKendra and a few more important buildings in a village.

The Bathinda region does not have electricity outages on the same magnitude as the Bundelkhand region, but several TARAKendras have still opted to install generators to avoid any loss of customer traffic due to short but frequent power outages.



Connectivity

TARahaat's desire to make its Web site available to illiterates translates into a strong need for rich audio-visual content on its Web site. This, in turn, requires reliable, high-bandwidth Internet connectivity.

As of December 1999, just under half of India's 600,000 villages lacked a telephone connection.¹⁶ Even though the government of India has since ramped up installation of phone service across the entire country, several locations within TARahaat's target regions have limited telephone connectivity.

To overcome this challenge, TARahaat offers VSAT links to its franchisees. VSAT is a higher reliability, high bandwidth solution and provides a competitive advantage to TARAKendras that have opted to install it. Typical cost of a satellite dish, currently subsidized by Hughes-Escorts, ranges from Rs. 150,000 to Rs. 200,000. Annual bandwidth costs range from Rs. 100,000/KBps to Rs. 600,000/KBps but are expected to drop by 80% to 85% over the next two years, as newer technologies such as DirecPC are widely deployed.¹⁷ In effect, TARahaat is helping its franchisees get an early start on the eventual solution to their high bandwidth needs, although some franchisees have opted to stay with phone connections or WLL connections because they don't see an immediate need for high bandwidth.

Social Environment

In some cases, the social context in a particular locale can pose operational challenges to the TARAKendra as well. Patience and effective communication with the local community are key to resolving these issues.

A franchisee in Bathinda region, for example, suffered early vandalism and threats because the villagers felt that her TARAKendra would disrupt their peaceful existence. She countered this by seeking district authority intervention to quell the threats, and then campaigned to inform fellow villagers about the benefits of computer education and Internet access. She later received a written apology from those responsible for vandalizing her TARAKendra.

The three girls who own and operate the Punavali Kalan franchise near Jhansi belong to one of India's higher social classes. Some villagers were reluctant to visit the TARAKendra because they considered it just one more way to increase the power vested in the higher class. The franchisees have managed to overcome this initial resistance through door-to-door visits with the villagers. Several people showed up when personally invited to visit the TARAKendra and see the "new type of TV" for themselves.

In Bathinda, the Pacca Kalan franchisee found villagers hesitant to send their daughters to the TARAKendra because they thought the girls might be harassed there, especially by boys from surrounding villages. The franchise owner offered personally to guarantee the girls' well-being during visits with their parents. This has mitigated initial fears, and now roughly 25% of the kendra's visitors are girls. As is common practice in the Punjab area, TARAKendras around Bathinda run separate classes for boys and girls.

Product Development

Local Language Content

TARahaat is building a competitive advantage by providing its Web content in local languages. Given that India has 18 officially recognized languages and several hundred local languages, translating hundreds of pages of static content represents a huge expense. Adding dynamic content, required for user retention and customization, ratchets the cost up even further. So far, TARahaat has not found any effective, automatic way of translating content from one language to another. Content in Hindi and Gurumukhi, the two languages covered so far, comes from manual translation and re-writing in each language. To expedite the process, freelance translators are



employed in local regions. Daily updated content, such as mandi (Hindi for commodity market) prices and classified advertisements, is handled by franchisees and local network support staff.

To encourage rural users to utilize computers for their writing needs—and to meet its own content development needs—TARahaat must find the right local language font scheme. This poses a challenge; text entered in one program, say MS/Word, does not transport easily to other programs, such as Web-based e-mail. For now, TARahaat has chosen to use phonetic font programs to circumvent this problem. It continues to monitor font technology developments around the world.

User Interface Design

TARahaat regularly monitors user interaction patterns and user reaction to its Web pages. It has found that rural users find a Web site less intimidating when the number of clicks required to find desired information is kept at a minimum. Minimizing this number is also important in that users who pay for their Web access time will not be willing to sit through several page downloads before reaching the desired information.

The TARahaat.com portal is constantly being updated to reduce the number of click-throughs. The user interface design now includes drop-down menus for all main information channels for quick access to desired content. Another improvement will come with the introduction of “My TARahaat” Web pages, allowing for customized content.

TARAgyan Products

Language translation and font transferability issues also arise in the creation of TARAgyan teaching materials. However, the main operational challenge for TARAgyan products lies in influencing the way that target students and their parents perceive these offerings. To make its offerings attractive, TARahaat has to emphasize the connection between its courses and improved job prospects. At the same time, TARahaat has to work to discourage the perception that by learning computers or taking computerized courses, a job is almost guaranteed. So far, franchisees have managed audience perceptions well, effectively communicating the benefits of TARAgyan to local villagers.

TARAgyan emphasizes Web-enabled education rather than Web-based education; i.e. its courses are designed to utilize information available on the Internet rather than be offered over the Internet. This primarily reflects the types of courses being offered, but also reflects current bandwidth limitations on delivering rich content over the Internet. TARahaat does plan to switch to Web-delivered courses pending the emergence of market need and enabling technology.

Management

Enterprise-Level Management

Even though TARahaat’s current management possesses excellent skills, the company will require additional management talent to put its planned growth and brand-building efforts into effect. TARahaat has devised the staff structure shown in Figure 1 for meeting its goals. However, strategic positions within this staff structure must be filled with high-quality managers and TARahaat will need to consider paying market-competitive salaries to attract such professionals. This would constitute a significant departure from its NGO roots.

Another challenge at the enterprise level will be to balance financial and social returns. TARahaat will have to devise an incentive scheme that encourages its managers to consider the social implications of their decisions along with the business implications. TARahaat can utilize results of a recent PriceWaterhouseCoopers project that studied and made recommendations on salary structure for Development Alternatives.



Franchise-Level Management

One of the major operational challenges for any franchise scheme is to ensure quality of and consistency across all franchise operations. TARAhaat currently faces no competition in the rural ICT market. As local competitors begin to crop up over time, however, TARAhaat will need franchise owners and managers capable of operating in a changing market.

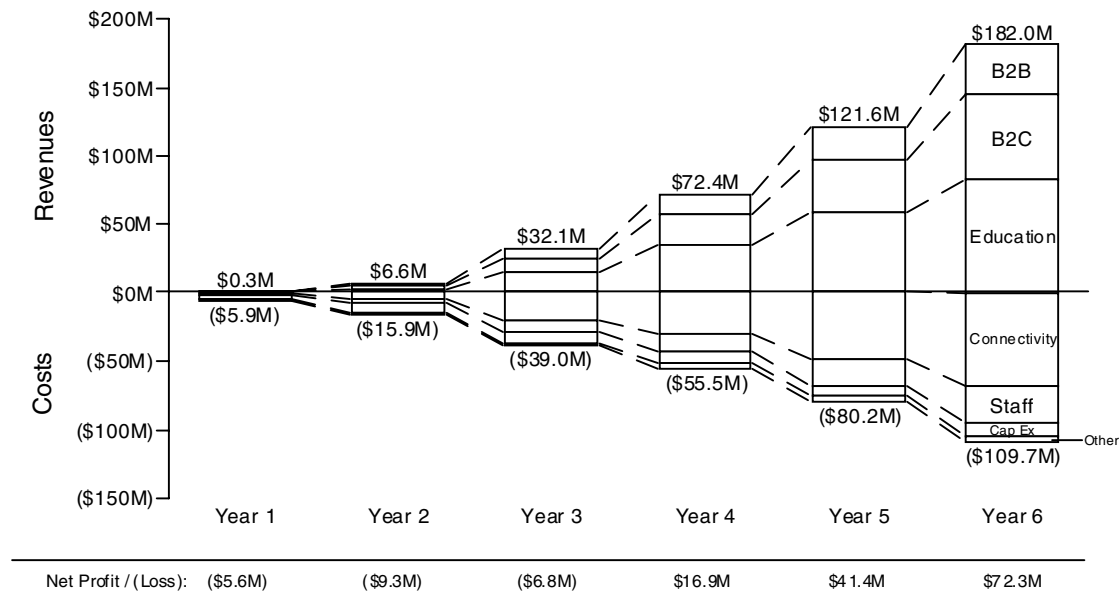
TARAhaat has plans for keeping its franchisee managerial talent at par with market demands. A TARA university for franchisee training and development is part of the business plan. Regional-level managers arrange periodic get-togethers for franchisees in their areas to facilitate sharing of experience and expertise. TARAhaat also plans to institute accounting standards via an accounting program to be distributed to all franchises.

FINANCIALS

TARAhaat Revenues, Costs, and Profits

TARAhaat’s projected revenues, costs and profits for the next six years are shown in Figure 2. As shown, TARAhaat expects to turn a profit in year 4 of operations. Cumulative breakeven will be achieved in the following year.

Figure 2: Projected TARAhaat Revenues, Costs, and Profits



Source: TARAhaat financial model

Revenues

The revenue streams shown in the figure correspond to the products and services discussed earlier. A detailed description of what is included in the Education, B2C, and B2B revenue streams shown in the table can be found in Appendix 3. In general, TARAhaat revenues derive mainly from online activities and/or activities that require delivery of TARAhaat-created content. Though franchisees will offer a variety of local, offline services (see section on Franchisee-Developed Services), tracking and taking a percentage of these revenues would prove administratively difficult.



The largest components of total revenues are education, membership fees (included in B2C), advertising (included in B2B), franchise fees (included in B2B), Web hosting (included in B2B), and e-commerce (included in B2C); combined, these revenue streams account for nearly 90% of total revenues in Year 6.

Costs

Expenditures for VSAT connectivity and network support staff comprise the bulk of TARAhaat's cash outlay. Capital expenditures are relatively minor because franchisees are responsible for the bulk of kendra start-up costs. A key implication of the use of the franchise model is thus that TARAhaat's costs are mostly variable. This feature of the company's cost structure could prove critical if the pace of kendra rollouts is slower than anticipated; in this scenario, TARAhaat management can decrease costs from budgeted levels nearly proportionately to the decrease in revenues.

Kendra Revenues, Costs, and Profits

Revenues

Franchisees and TARAhaat share revenues from the sale of TARAhaat-developed products and services. Revenues generated by franchisee-developed products and services are generally retained completely by the franchisee. TARAhaat projects that the largest components of kendra revenues will be business services (data entry, printing, desktop publishing, e-commerce, and so on), education, browsing, entertainment, and membership fees.

Costs

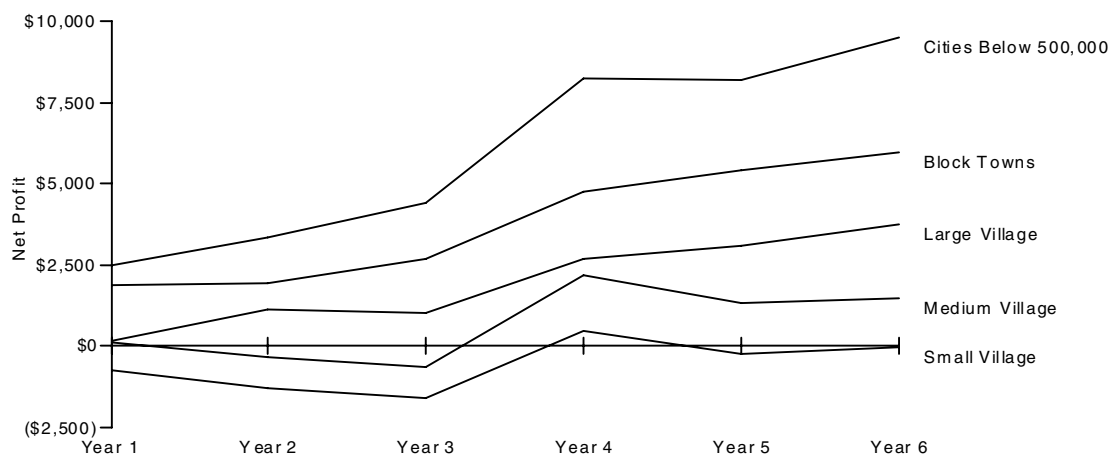
Major kendra costs include computer and peripheral equipment, office furniture, rent, utilities (electricity and diesel for generators), staff (hired teachers and other help), interest on loans, marketing costs, and general supplies.

Profitability of Kendras by Model

Revenue and cost streams vary for the five kendra models. In general, the larger kendra models, which dominate the early rollout schedule, are more profitable than the smaller kendra models, which are not deployed in the near term.

Figure 3 shows projected annual net profit of the kendras by model. The three larger kendra models achieve profitability in Year 1; the medium village kendra model achieves profitability in Year 3; and the small village kendra model never achieves sustainable profitability. The small village kendras, which TARAhaat management considers social investments and not profit generators, will rely on subsidies from TARAhaat, which are to be offset by profits from larger kendras.

Figure 3. Projected Profitability of Kendras by Model



Source: TARAhaat financial model



Actual Pilot Kendra Financial Performance

The seven TARAKendras operating in the Bathinda region are typical of peri-urban franchises likely to be profitable from year 1 onward. These franchises have been operational since January 2001 and get their revenues from web browsing, computer games, and education. Monthly expenses and income for these kendras is shown in Table 3.

Table 3: Kendra Financials–Bathinda region

Kendra location	Students	Loan repay	Electric	General expenses	Instructor salary	Rent	Total expenses	Income
Mandi Kalan	30	4,500	500	1,500	1,000	-	7,500	10,500
Harriapur	40	6,000	500	2,000	2,500	600	11,600	22,200
Pacca Kalan	1	4,500	500	2,000	1,500	-	8,500	2,300
Lehra Mohabbat	8	5,500	900	-	2,500	4,200	13,100	8,000
Kala Jharani	30	6,000	700	900	2,000	-	9,600	11,500
Chak Fateh Singh	70	6,000	500	500	2,500	-	9,500	25,500
Kotha Guru	NA	NA	NA	NA	NA	NA	NA	NA

Notes: All amounts in rupees; monthly expenses and income; rent paid by DRDA for some of the locations

Source: TARAhaat network support team in Bathinda

TARAhaat Capital Structure and Financing Needs

TARAhaat's founders have devised a novel capital structure to balance the financial and social objectives of the company. Though TARAhaat is registered as a for-profit company, 51% of its shares will be allocated to a nonprofit foundation controlled by select DA Group personnel and other high-profile members of the development and business communities. Allocation of shares to the foundation occurs when individuals or corporations purchase TARAhaat shares. Investors are required to purchase the shares in multiples of two; one to be retained by the investor, the other donated to the foundation.¹⁸ TARAhaat intends to go public within about five years, thereby providing investors with an exit strategy. The company hopes to provide a return on investment of 15%-20%.¹⁹

To date, TARAhaat has secured approximately \$1 million in start-up financing from friends and family sources and from corporations, who have contributed cash and in-kind goods and services. Early corporate contributors include Hughes Electronics, which donated five VSAT dishes and supporting connectivity, Hewlett-Packard, which donated computer equipment, and James Martin, which contributed software development and consulting services.

TARAhaat's CFO anticipates that the company will require an additional \$30 million in financing over the next three years. Primary investor candidates are the IFC, wealthy non-resident Indians (NRIs), and corporations looking to reach the rural Indian market. For some corporations, like computer or VSAT providers, the opportunity to sell to TARAhaat and its network of franchisees will be the primary rationale for investing; for other corporations, like consumer product or agriculture supply companies, the opportunity to sell to TARAhaat's customer base of kendra users will be the primary rationale.

TARAhaat management is confident that the current dearth of dot-com funding will not significantly affect TARAhaat's ability to attract financing. Management strongly believes in TARAhaat's value proposition and ability to generate real revenues, both factors that should distinguish TARAhaat from a host of dot-com flare outs. Moreover, TARAhaat's social objectives and ties to DA should attract investors with social investment



criteria.

USER EXPERIENCES AND IMPACTS

A TARAhaat field worker near Jhansi was trying to get a cowherd owner interested in visiting the TARAkendra to see how Internet access could help him. He wanted to know whether it could help him monitor his herd while staying indoors in the hot summer months. This could be seen to indicate a high level of expectation among rural villagers—expectations that the Internet may be able to deliver conveniences like nothing else in their immediate social environment. At the very least, it indicates a willingness to try the Internet and computers if they are seen to deliver benefits relevant to the struggles of rural life.

Challenges in Computer Education

Anecdotal information reveals several challenges, and solutions, in teaching computers to rural audiences. Most of these stem from a lack of English proficiency among users.

- Teaching mouse usage is the biggest initial hurdle. Use of MSPaint has proved a useful tool for gaining comfort with the mouse. Some students have actually used MSPaint for homework assignments in art classes. Figure 11 shows the work of a TARAkendra student after only one week of computer exposure.
- Teaching keyboard usage is easier, since most users are familiar with the English alphabet even though they cannot form full sentences in English. Most users are able to write letters or participate in chats with phonetic Hindi fonts. A pamphlet showing how the keystrokes map to Hindi alphabets and how to use this to form Hindi words is available.
- Software menu systems are a challenge to rural users because of menu command words are in English. Most users have managed well by memorizing the menu system for popular programs such as MSWord. For example, they know that the fourth item in the left-most drop down menu in MSWord is to be used to save their files.

Non-Internet Activities of TARAkendra Users

- Basic courses in computer fundamentals are expected to improve employment prospects for students. However, several students were eager to explore the job options themselves once Internet access becomes available. They fully expect to continue attending computer classes even after summer vacation, because they feel computer skills are more essential in the job market than the education they may receive in school or college.
- Student dedication is evident in the fact that some of them commute up to seven kilometers in the hot summer to attend TARAhaat classes, sometimes by foot.
- Figure 7 (see Appendix 5) shows a child practicing keyboard typing on a computer that has been shut down due to power outage.
- Computer games are a big attraction for younger children and some enthusiastically rattled off names of computer games that they are very fond of. When one group was asked if they would pay for playing games when the TARAkendra starts charging them, they were very sure they could get money from their parents for playing these games. Rs.20 did not seem prohibitive.
- MSExcel and PowerPoint have been popular with school-going children and younger



adults. Some school children have done their schoolwork using Excel because it helps them make small tables in a neater fashion. Special animation and sound effects in PowerPoint are a big draw.

Internet-Related Activities of TARAKendra Users

TARAAhaat has planned for several Internet-related services, such as mandi price information, railway reservations, doctor's appointments, and the like, that will yield direct revenues for TARAAhaat and franchises. In addition, Internet surfing charges are likely to comprise a big chunk of franchisee revenues. Here are a few examples of activities users have already begun to explore:

- **E-mail.** The most common mode of access is the TARAAhaat.com portal, since it enables users to read messages in Hindi.
- **Specific Web sites.** Popular Web sites for children and youth include movie and job information sections of Hindi portal WebDuniya. TARAAhaat.com plans to provide similar content on its own portal. For adult users, popular sites have to do with religious places and events. They are excited about being able to "e-visit" far-off places that they often dream of visiting. Another popular site is the health section of WebDuniya, where they look for health advice.
- **Chat rooms.** Users visit chat rooms to talk to their friends, and at times make new friends. An amusing incident involved one of the Punavali franchisees making friends with an Indian doctor in Canada, who later inquired about a possible matrimonial match for his son with one of her sisters.

Social Impact

Some social benefits of providing computer and Internet access to rural masses were very obvious during user interviews:

- Education of girls does not receive sufficient emphasis in most parts of rural India. Parents are usually reluctant to send their daughters to far-off places for education that will help them stay at par with the rest of the world. The local availability of computer and Internet access has spurred many parents to allow their daughters to avail themselves of the benefits of these new mediums of information and education. During our visits, the users in all Bathinda TARAKendras were predominantly girls and women. Some parents feel that computer education will give their daughter a position of equality in matrimonial alliances. Any such perceived equality is bound to have long-term social effects.
- Rural children at the TARAKendra seemed confident about their future prospects. The fact that they can now use computers, just like their city counterparts, is a big boost for most of them. TARAAhaat hopes that this self-confidence will lead to entrepreneurial efforts and village micro-enterprises that will transform the rural economy when the younger generation takes wings.



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- The typical outlets for a farmer's crop are government centers where the state buys farm produce at a pre-set price; local dealers who buy from the farmer and sell it to the wholesale market; or the nearest mandi itself, if the farmer is able to transport his produce on his own. With mandi prices available through TARAhaat, farmers will know prevailing wholesale prices for their produce and make appropriate decisions as to where and when they sell their produce. Just being able to eliminate the local middlemen will increase the financial yield to a farmer several times over²⁰ and alter the rural economic landscape substantially.

TRANSFERABILITY OF BUSINESS MODEL

TARAhaat has not yet proven the staying power of its business model, but there are early indicators of viability, most notably the positive customer response to pilot kendras and the profitability of the Bathinda kendras. Though it is impossible to predict with absolute certainty what factors will play pivotal roles in securing TARAhaat's success, three key features of the TARAhaat business model stand out as likely candidates. For those looking to apply lessons from TARAhaat's experience in other locations, particular attention should be given to these critical features.

The first key feature is TARAhaat's use of the franchise model. This model allows rapid growth of the kendra network with limited capital investment from TARAhaat. Minimal corporate-level fixed costs also make the business highly scalable; TARAhaat should be able to adapt its cost structure to a range of rollout schedules so as to maintain profitability. Equally importantly, the franchise model harnesses the entrepreneurial drive and local knowledge of franchisees, with benefits to both the franchisee (a profitable kendra) and TARAhaat (a profitable company). The franchise model is likely to yield a stronger, more resourceful, and more locally-responsive network of kendras than if the kendras were staffed and controlled centrally.

The second key feature is TARAhaat's focus on understanding and delivering products that meet the needs of its rural customer base. Central to this commitment is TARAhaat's willingness to modify or alter its product development plans in response to customer feedback. For example, TARAhaat's education courses, now expected to be the company's largest single revenue generator, were only conceived within the last several months—there is no mention of TARAgyan in TARAhaat's early business plans. Though this fluidity has led to criticisms that TARAhaat lacks focus, the company's pragmatic, demand-driven philosophy may ensure that TARAhaat provides services with genuine value and, consequently, for which customers are willing to pay.

The third key feature is TARAhaat's unique combination of commercial and NGO characteristics. Given the risks and uncertainties associated with bringing the Internet to rural India, it is unlikely that an organization motivated solely by profit would broach the market. TARAhaat's ties to DA also give TARAhaat access to socially-minded investors who are willing to take a 15-20% ROI (TARAhaat's target ROI) on a risky investment; purely profit-minded venture capitalists, by contrast, would only invest if they expected considerably higher returns.

Before concluding that TARAhaat's business model can be transplanted to other locations as long as the three features described above are accurately recreated, it is important to note that some of TARAhaat's future success will depend on societal and environmental factors, which may or may not be replicable in other countries. One such factor is the existence of a large, rural middle class that, while not affluent, has disposable income to spend on education or other services. Another factor is the value Indian society places on education, a characteristic that has carried over into a strong interest in learning about computers. Environmental factors include the lack of any major regulatory hurdles (on the whole, the Indian government is supportive of efforts to expand IT access in India), and the lack of competition in the market for providing rural IT services.

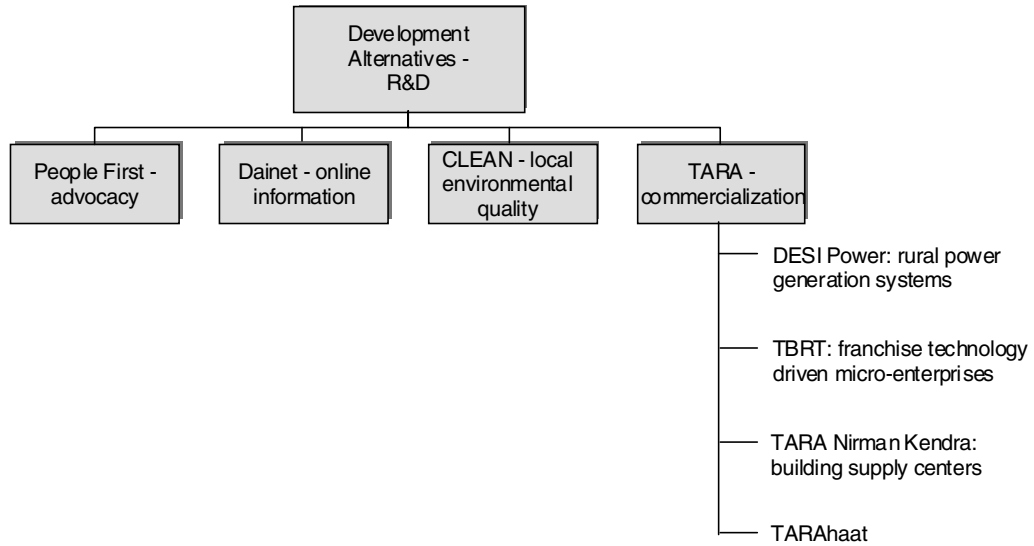


NOTES

- ¹ Currently the price for a 6-month IT course is Rs1490, or about US\$31. Relative to comparable IT courses offered in urban settings, this is very affordable.
- ² An example of a supply chain management service would be allowing a multinational to use TARAhaat's network of kendras to communicate with farmers for timely phasing of inputs (e.g. sugar cane, tomatoes) to their buyers (sugar mill, ketchup factory).
- ³ Also called TARAsaathi.
- ⁴ These parents wanted their daughters to learn cooking, dancing and driving in the safe environment of the TARAkendra. The franchisee got a friend, who teaches in a nearby town, to offer a cooking class during summer vacation. Of the 30 girls who attended this class, 5 have also enrolled in computer courses. The franchisee plans to add a sewing class to the cooking class and expects both classes to act as effective feeders to her computer room.
- ⁵ Estimates from the National Council of Applied Economic Research, quoted in TARAhaat.com, "The Internet Enabled Rural Marketplace," 24.
- ⁶ Estimates from the National Council of Applied Economic Research, quoted in TARAhaat.com, "The Internet Portal Connecting Rural India to the Global Village," 10.
- ⁷ Teledensity is defined as number of telephones as a percentage of population.
- ⁸ "India: Infrastructure," Economist Intelligence Unit's "Doing Ebusiness In" Web site, online at www.ebusinessforum.com accessed June 16, 2001.
- ⁹ "At-a-Glance," Economist Intelligence Unit's "Doing Ebusiness In" Web site, online at www.ebusinessforum.com accessed June 16, 2001.
- ¹⁰ Interview with S. Ramakrishnan, Senior Director, Research and Technology Division, Ministry of Information Technology, June 5, 2001.
- ¹¹ "At-a-Glance," Economist Intelligence Unit's "Doing Ebusiness In" Web site, online at www.ebusinessforum.com accessed June 16, 2001.
- ¹² Interview with Sanjay Prakash, consultant responsible for development of TARAgyan, May 30, 2001.
- ¹³ The "sachet packet" model implies packaging and pricing goods and services in easily affordable amounts to increase consumption. It derives from the highly successful strategy of selling shampoo in small sachets instead of the conventional larger bottles.
- ¹⁴ Interview with Dr. Sugata Mitra, Senior Vice President, NIIT Center for Research in Cognitive Systems, June 13, 2001.
- ¹⁵ A 5KW diesel generator consumes about one liter of diesel every two hours. The initial investment is roughly Rs. 15000.
- ¹⁶ Press release dated December 22, 1999 from Department of Telecom, Government of India.
- ¹⁷ Interview with Mr. Shashi Ullal, President and Managing Director, Hughes-Escorts Communications Ltd., June 5, 2001.
- ¹⁸ A consequence of this provision is that share prices will be below what they would otherwise command. Rather than cutting the price in half, however, as might initially be expected, the price should only drop by a factor of $1/(1+(1-\text{tax rate}))$, as the donation will be tax deductible.
- ¹⁹ In India, typical bank interest rates range from 7% to 10%.
- ²⁰ One example is a vegetable that farmers sell for Rs.2 per unit, but it sells for Rs.15 per unit at the retail outlet.



APPENDIX 1: THE DEVELOPMENT ALTERNATIVES GROUP ORGANIZATIONAL STRUCTURE



APPENDIX 2: MANAGEMENT PROFILES

THE CEO is Ashok Khosla, who was earlier a director in the Government of India and in the United Nations. Dr. Khosla was educated at Cambridge and Harvard Universities and is currently President of Development Alternatives and its marketing wing, TARA.

THE COO is Rakesh Khanna, Director Business Development Unit of DA. Mr. Khanna obtained a B.Tech in Electrical Engineering from the Indian Institute of Technology and has more than 30 years of experience in marketing and general management in multinational corporations.

THE CFO is V. Ranjit Khosla, who is also President of Excelsior Venture Management in New York, U.S.A. and was earlier Senior Vice President and Financial Controller of ITT Corporation.

THE MANAGER, TARAgyan, is Sanjay Prakash, who is one of India's most creative architects and educationists. Over the last decade and a half, Mr. Prakash has designed school buildings in villages and taught children aged between 6 and 13 in many parts of rural India. He has worked in an advisory role with rural educators in Indian states of Bihar, MP, Punjab, etc.



APPENDIX 3: TARAHAAT REVENUE STREAMS

EDUCATION

Education. Education revenue comes from payment by students for courses, materials and certification. The payment is made to the TARAKendra. A percentage (which depends on the course and ranges from 40% to 60%) of this income is passed on to TARAhaat to cover the costs of the course materials.

B2C REVENUES

Silver and Gold Memberships. The entry fee and charge for the TARAcad (\$2 for premium membership / \$4 for super premium membership) is collected by the TARAKendra and passed on to TARAhaat. The annual membership fee (again \$2 for premium membership / \$4 for super premium membership) is collected half-yearly and is shared 50-50 between the TARAKendra and TARAhaat.

E-Commerce. Revenues from e-commerce will be from commissions on sales effected and will depend on the products or services obtained by users through TARAhaat. For some years, the transactions will primarily be on a COD basis, payable directly, through the delivering courier or via the TARAKendra to the vendor. Typically, a commission of about 10% is payable to TARAhaat, of which half is passed on to the TARAKendra.

E-Governance. Services such as complaints on public services and redressals, land maps, application forms, photographs, etc, will be charged on the basis of connect time plus printout price.

Financial Services. Commissions will be charged on transactions made through TARAhaat.com by insurance, banking and credit institutions. The entire revenue will accrue to TARAhaat. TARAKendras will get 100% of the revenue they get for providing offline services to vendors, financial institutions or clients.

Medical Services. For maintaining a personal medical record, users will pay assisted surfing charges to the TARAKendra. For medical appointments, the fee of Rs 10 will be shared 50-50 between the two kendras involved. TARAhaat earns the entire amount received doctors as registration fees and advertisements.

Local Ads and Job Postings. All revenue from local advertising, job vacancy announcements, CV postings will be split 60% for TARAhaat and 40% for the TARAKendra.

TARAbazaar. The portal to connect village craftspersons to other clients, including urban and export markets, TARAbazaar, is expected go fully into action in Year 3. Revenues from 10% commissions on sales will be shared 50-50 between TARAhaat and the local TARAKendra.

Astrology. Users pay for horoscope readings and for printouts of charts. The net revenue is shared 2:1 between the kendra and TARAhaat.

B2B REVENUES

Advertisement and Yellow Pages. National and regional level advertising and classifieds (yellow pages) revenue goes entirely to TARAhaat.

Franchise Fee. Currently, the franchise fee corresponds to the size of the kiosk (number of computers). It is payable monthly.



Equipment Procurement. TARAhaat will procure computer and communication equipment for the TARAKendras at concessional rates. It will get a commission of 5%.

Data Mining, ASP and Services to Industry. The revenue from services rendered to corporate and public sector customers for market research, supply chain management and customer relations management will go to TARAhaat.

Web Hosting. Revenues from web hosting will be split 1:4 between the TARAKendra and TARAhaat.

Consulting. Revenues from consulting to clients, partners and overseas initiatives of a similar nature will go 100% to TARAhaat.



APPENDIX 4: TARAHAAT.COM WEB SITE HOME PAGE

The opening page shows an illustration of a typical village setting. Links to common interest areas of the Web site are embedded in these illustration; e.g., users click on the postman for e-mail and the health clinic for links to health-related information. Moving the mouse over any illustrated link brings up a description bubble and a voice-over that informs on contents of the link. The main channels of the Web site are listed in the left frame. Users can switch to local languages by picking the appropriate link in the top frame. Currently only two languages, Hindi and Gurmukhi, are supported.



APPENDIX 5: PICTURES FROM FIELD VISIT

Figure 6. TARAhaat CEO Ashok Khosla and COO Rakesh Khanna



Figure 7. Punavali TARAkendra



Figure 8. Punavali TARAkendra Classroom



Figure 9. A Young User at Punavali TARAkendra



Figure 10. The Newly-Inaugurated Datia TARAKendra



Figure 11. Lehra Mohabbat TARAKendra



Figure 12. Lehra Mohabbat TARAkendra



The sign proclaims, "special provision for every kind of typing and color printing".

Figure 13. Student work from Pacca Kalan TARAkendra

