

Bayantel Public Calling Offices:

A Case Study on The Provision of Communications Services to Micro And Small Enterprises in the Philippines



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by

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CHAPTER ONE INTRODUCTION

BACKGROUND

This case study is part of a series of papers that aims to explore the role of information and communication technologies (ICTs) in the development of micro and small enterprises (MSEs).¹ The papers review several business models and assess the extent to which information and communication services have been and can be offered to MSEs in a demand-led and sustainable manner.

The Bayantel Public Calling Offices (PCOs) were chosen for study because they are profitably providing basic telecommunications and related services to low-income people, including MSEs, throughout the Philippines. This business model is reaching a large number of customers and is financially viable. Choosing a private sector model offered the opportunity to learn more about providing services to MSEs when profit is the bottom line.

The Bayantel Public Calling Offices were studied in Southern Mindanao, an area of the country where there is a growing MSE population and telecommunications services have begun to develop over the last several years. As of December 1997, the “number of telephone lines per 100 people) in Southern Mindanao was 6.38, but most telecommunications services were centered in the two largest cities of Davao and General Santos. Although the teledensity in the National Capital Region, which contains Metro Manila, was 28.62, Southern Mindanao still ranks as the region with the fourth highest teledensity out of the 15 Philippine regions.² Southern Mindanao is being developed as a gateway to trade with Southeast Asian nations, including Indonesia, Singapore, Malaysia, and Thailand. Agribusinesses and fishing are still the most prominent enterprises, with increasing focus on exportable products, including fresh fruits and vegetables. Key industries are food processing; wood processing; gifts, toys, and housewares; cut flowers; and construction. The Department of Trade and Industry estimated that 95 to 98 percent of workers are employed in micro, small, and medium-sized enterprises.³

The study included a survey of Bayantel MSE customers focused on five PCOs, all owned branches: Davao City and General Santos City, two large secondary cities; Digos and Kidapawan, two smaller peri-urban towns; and Polomolok, a small town in an essentially rural area. The institutional assessment, under the study, included these offices and three franchises in the same area. Data were gathered by visiting the PCOs, interviewing Bayantel managers at all levels (national to local), interviewing franchise owners, inspecting the competition, and interviewing other key persons, particularly those in government agencies. In addition, a survey of MSE cell phone users was conducted as part of the study to

¹ MSEs in this series of papers are defined as those enterprises employing 25 or fewer workers, including family members. The number of workers was used as an indicator of business size because of the expected difficulty in estimating business assets, particularly for micro and small enterprises.

² 1997 National Telecommunications Commission Annual Report, page 22.

³ From interviews with officials from the Department of Trade and Industry in Southern Mindanao.

determine if cell phones were a substitute for land lines or PCOs and to examine the use and usefulness of cell phones to MSEs. The results of this survey are included in Appendix A.

CHAPTER TWO OVERVIEW OF BAYANTEL PUBLIC CALLING OFFICES

BACKGROUND

Bayantel is a diversified telecommunications company providing a full range of voice and data services, including storefront services, offered through 150 branch and 250 franchised PCOs nationwide. Bayantel is a local exchange carrier and an international long-distance service provider. The company operates a national transmission network and provides leased line circuits using VSAT, a form of satellite communications. The company is involved in cell phone service through a sizeable interest in a cell phone service company.

Bayantel PCOs began with a company called Radio Communications of the Philippines, Inc. (RCPI), which offered telegram services through storefront facilities throughout the Philippines in the 1960s. Some offices added basic calling services in the 1970s. In 1993, Bayantel bought RCPI and added a range of telecommunications services to the RCPI telegram offices. Standard services offered in almost all Bayantel PCOs are domestic and international long-distance telephone, domestic and international long-distance fax, faxed message service, and telegrams. Owned offices also provide money transfer services. Some offices provide data telegrams and will accept incoming faxes or phone calls. (See Table 1.)

Overall, Bayantel's mission is: "By the year 2000, Bayantel aims to be a leader in providing a full range of telecommunications services." Bayantel hopes to emerge as the most respected and most profitable telecommunications carrier and challenge the more established carriers, particularly Philippine Long Distance Telephone Company (PLDT), which long held a monopoly in the Philippine telecommunications industry. Bayantel's core values are customer service, employee welfare, obligation to shareholders, and consciousness of community responsibility.⁴

COMPETITION

Bayantel's main competition in the PCO business is Philippine Telephone and Telegraph (PT&T), which offers a national network of storefront services. Bayantel also competes with PLDT in many locations and the companies allocated local exchange carrier licenses for each part of the country. The local exchange carrier in a given location has exclusive rights to offer local telephone service in that location. Bayantel's PCOs are at a disadvantage because they cannot offer local calling except in their designated areas. In Southern Mindanao, the main local exchange carrier is PilTel, a subsidiary of PLDT. Cell phone carriers that have opened PCOs using cell phones also offer some competition. Bayantel, however, maintains a considerable price advantage over these offices.

⁴ From interviews with Bayantel national managers.

Table 1: Summary of PCO Data

	Owned Branches					Franchises		
	Davao City	Digos	Polomolok	Gen. Santos	Kidapawan	Gen. Santos	Calumpang	Davao City
Services								
Long-distance telephone	X	X	X	X	X	X	X	X
Long-distance fax—outgoing	X	X	X	X	X	X		X
Long-distance fax—incoming					X			X
Faxed message service	X	X		X	X			
Telegram	X			X	X			X
Data telegram	X							
Outgoing money transfer	X							
Incoming money transfer	X	X	X	X	X			
Local telephone/fax								X
Date opened								
						May 1996	January 1997	April 1997
Customers/day		50-70	15-25	100-200	70	6	20	15-25
Approximate revenue/customer			50	100		84		
Approximate monthly revenue			30,000	300,000		15,000		50,000
Competition	PLDT, PT&T	PT&T	PTT, ManualTel, PilTel, Marbelcom	PilTel; PT&T	PT&T; PLDT; GlobeTel	none locally; PilTel	PilTel	PT&T
No. of staff	5	1 manager; 1 cashier	1 regular; 1 contractual	2 regular; 2 contractual	2 regular; 1 contractual	3 contractual	2 attendants	2
Key assets								
Lines	6	6	4	6	3	2	2	4
Booths	5	4	3	5	6	1	1	3
Computers	4	2	1	3	2	0	0	2
Fax machines	2	2	1	2	2	1	0	1
Printers	2	2	1	3	2	0	0	2
Air conditioners	2	2	1	3	2	1 shared	0	2

Source: Interviews with PCO managers, observation

In addition to competition from other PCOs, Bayantel's storefront offices face competition from substitute products: principally land lines, pay phones and cell phones. The government's ambitious program to vastly increase the number of land lines throughout the country is decreasing the market size for PCOs. Local exchange carriers are quickly putting up pay phones to increase usage of their recently installed lines. These pay phones, most of which now use cards rather than change for both local and long-distance calls, may represent the most serious threat to PCOs in the long term. (See Table 2.)

Table 2: Bayantel PCO Competitors and Substitutes

Competitors	Substitutes	Potential Entrants
<ul style="list-style-type: none"> ■ PT&T ■ PLDT ■ PilTel ■ Other local exchange carriers ■ Wireless PCOs 	<ul style="list-style-type: none"> ■ Land lines ■ Cell phones ■ Pay phones ■ Business centers ■ Banks 	<ul style="list-style-type: none"> ■ Pay phone-centered businesses

Source: Interviews with Bayantel and competitors; observation

Bayantel has made steady strides against its PCO competition. Although the company declined to give specific numbers, it claims to have overtaken PT&T in market share. Offices appear to be making headway in competing against the PCOs of local exchange carriers, although PilTel continues to have the edge in Southern Mindanao.

Although PCO business is not growing as fast as that of cell phone service, for example, PCOs offer Bayantel relative stability and national exposure through a nationwide network of offices. In addition to being a profitable part of the company's overall portfolio, PCOs fulfill a social responsibility because they serve low-income people and, in some cases, underserved areas of the country. Bayantel managers say that demand and revenues were growing steadily until this year, when the economy was severely affected by the regional economic crisis.

In the last few years, however, Bayantel has cut the number of PCOs, both owned and franchised, by more than half, closing most of those that were not profitable. Most of the offices closed were in Luzon, the northern-most island of the Philippines, where telecommunications access has improved the most in the past 10 years. Its competitors also are closing offices. The closings seem to be mainly a result of the competition from substitute products, but they may also reflect a decreasing willingness to serve unprofitable areas in an increasingly competitive industry. Bayantel states that in rural areas a PCO can only generate enough volume to be viable if it serves an entire municipality or, in some cases, several municipalities. This raises a social issue of how far people should have to travel to use a telephone or whether service should be subsidized. The competition from substitute products seems also to be driving an effort to develop new products for PCOs beyond basic telecommunications services and increase their attractiveness.

STRATEGY

Bayantel's key strategy for its PCOs is to emphasize quality. Prices for long-distance service, which account for the vast majority of PCOs' earnings, are regulated by the National Telecommunications Commission. Such regulation means that there is little difference in price among competitors and no company can achieve a significant price advantage. Because Bayantel is newer than other companies offering storefront telecommunications services and consumer loyalty is high, the company must offer something more to attract new customers.

Bayantel's push for quality focuses on two fronts: a "minimum one look," which is prompting the upgrading of most Bayantel-owned branches, and technology that ensures the clearest possible connection from a given location. Bayantel's "minimum one look" makes its offices considerably more attractive than its competition's. Bayantel branches have air conditioning, clean and comfortable waiting areas, and attractive signs. The focus on technology has meant that some offices have upgraded from microwave or radio transmission to satellite transmission. Bayantel analyzes each new office location to determine the technology that will offer the highest profit while meeting customer demand for a clear connection.

Despite the attempt at a common look, there remains considerable variation among branches. This variation is an intentional strategy, because the competition and local preferences vary considerably among areas. Bayantel is relying on new services and different service mixes to remain competitive in changing local circumstances. Although the service mix is standardized, how services are offered varies. For example, even though many offices continue to provide long-distance calling through operator-assisted service only, others have added collect calling and direct dialing service. Direct dialing is cheaper for the consumer but offers less profit to the provider. Therefore, Bayantel offers direct dialing only in locations where its competition also offers direct dialing. Rural offices tend to be more informal, with less fancy furnishings than urban offices, which have a more sophisticated look. Remote offices tend to offer incoming fax and calling services for their regular customers. However, these remote offices tend not to have data transfer or other high-end services demanded in urban areas. Local managers retain the responsibility to gauge their areas and recommend changes in services and look as appropriate.

Franchises offer even more variation. Bayantel offers two types of franchises: regular and super. Super franchises look much like owned branches. Regular franchises have a lower minimum-standard look and often offer only long-distance calling services. They often do not have air conditioning or corporate-looking furniture and are quite small. Franchise managers have considerable flexibility in their mix of services and service features, beyond a minimum requirement. Some franchises, for example, have added local calling service through a leased line from the local exchange carrier. See Chapter Five for a more detailed discussion on franchising.

Bayantel's promotion is mainly on a per service basis because its consumer research shows that each service has its unique market with distinct service features. For example, a reliable,

honest reputation is key for money transfer services, while a clear connection is important for long-distance telephone service.

Table 3: Summary of Bayantel's Business Strategy

Component	Bayantel PCOs
MSE customer benefit	<ul style="list-style-type: none"> ▪ Save time and money on daily business transactions ▪ Immediate benefits
Customers	<ul style="list-style-type: none"> ▪ Broad based ▪ Low-end customers ▪ 70% personal/30% business ▪ MSEs are majority traders
Service type	<ul style="list-style-type: none"> ▪ Standardized
Current services	<ul style="list-style-type: none"> ▪ Phone ▪ Fax ▪ Telegram ▪ Money transfer
Recommended change in services	<ul style="list-style-type: none"> ▪ Add e-mail ▪ Add e-commerce
Market type	<ul style="list-style-type: none"> ▪ Area based with broad outreach ▪ High volume ▪ Low margin ▪ Low unit price
Market building strategy	<ul style="list-style-type: none"> ▪ Increasing general awareness of service availability ▪ Quality and emphasis on benefits of services to induce trial ▪ Quality to build retention
Ownership structure	<ul style="list-style-type: none"> ▪ Corporate/private sector ▪ Franchised network
Financial sustainability issues	<ul style="list-style-type: none"> ▪ Broad outreach is key ▪ Expect profits within one year
Internal capacity needed	<ul style="list-style-type: none"> ▪ Strong systems for high volume ▪ Keeping costs very low ▪ Local variance in features ▪ Equipment is important ▪ Low-skill staff for service delivery ▪ Broad outreach in marketing

Source: Interviews and observation

CLIENTS

Bayantel PCOs serve broad, area-based markets. Their customers are mainly C, D, and E levels, defined in the Philippines by a variety of socio-economic factors, including a monthly household income of P25,000 (US\$625) or less. PCO managers estimate that MSEs make up between 10 and 30 percent of their client base. This was confirmed by the survey results. MSEs are often their regular clients as opposed to the bulk of walk-in customers.

A profile of MSE PCO customers shows that they are better off than average MSEs in the Philippines (see Table 4). Although national data on MSEs are sketchy, this result can be inferred from small surveys and anecdotal evidence. Seventy-five percent of MSE customers surveyed say that they are registered with a government agency; the remainder are in the

informal sector. Although this figure is probably inflated because MSEs are afraid to admit that businesses were unregistered, it is still high. The bulk of MSE customers are in trading, with most of those in either food and beverage or general merchandise. The remainder are mainly in services, with only 1 percent in manufacturing. Although the proportion of MSEs in trading in the Philippines is substantial, the proportion of PCO customers in trading appears significantly higher than the average, while the percent in manufacturing appears low. A national survey in 1993 showed that 40 percent of registered micro, small, and medium-sized enterprises were in manufacturing.

Table 4: Profile of PCO MSE Customers

	Profile
Sector	<ul style="list-style-type: none"> ▪ 75% formal ▪ 25% informal
Type	<ul style="list-style-type: none"> ▪ 86% trading ▪ 12% services ▪ 1% manufacturing
Age of business	<ul style="list-style-type: none"> ▪ 27% two or less years ▪ 19% three to five years ▪ 54% more than five years
Ownership	<ul style="list-style-type: none"> ▪ 32% male ▪ 22% female ▪ 46% family/joint
Monthly sales*	<ul style="list-style-type: none"> ▪ 29% P3,000 or less (US\$75) ▪ 26% P3,001-10,000 (US\$75-250) ▪ 28% more than P10,000 (US\$250)
No. of employees	<ul style="list-style-type: none"> ▪ 90% 10 or fewer ▪ 10% 11 to 25
Location of business partners	<ul style="list-style-type: none"> ▪ 59% have customers in a different province ▪ 68% have suppliers in a different province
ICT ownership	<ul style="list-style-type: none"> ▪ 52% own a telephone ▪ 8% own a fax machine ▪ 17% own a computer
Education of owner	<ul style="list-style-type: none"> ▪ 22% high school or less ▪ 31% some college ▪ 47% college graduate
Monthly family income*	<ul style="list-style-type: none"> ▪ 9% P10,000 or less (US\$250) ▪ 27% P10,001-25,000 (US\$250-625) ▪ 50% more than P25,000 (US\$625)

* Remainder did not know or refused to answer

Source: MSE survey

Most PCO customers' businesses are well established. As is usual in the Philippines, almost half of ICT users' businesses are joint or family owned, with the balance split relatively evenly between male- and female-owned businesses. Female ownership is most likely lower than the national average for MSEs, not because there are fewer women business owners who use telecommunications but because the survey respondents were in Southern Mindanao, where female business ownership tends to be lower than the rest of the country.

Although last month's sales were quite low for most respondents, most reported that their enterprises are not their only source of income. Monthly incomes for the respondents are quite high. Average monthly household income for Southern Mindanao in 1997 was P6,765 (US\$169), average urban income was P9,488 (\$237), and rural income was P5,604

(US\$140). The government estimated the national poverty threshold in 1997 at P4,811 (US\$120). Using this definition, only 3 percent of MSE customers surveyed fell below the poverty line as compared with a national poverty incidence in 1994 of 35.5 percent.⁵

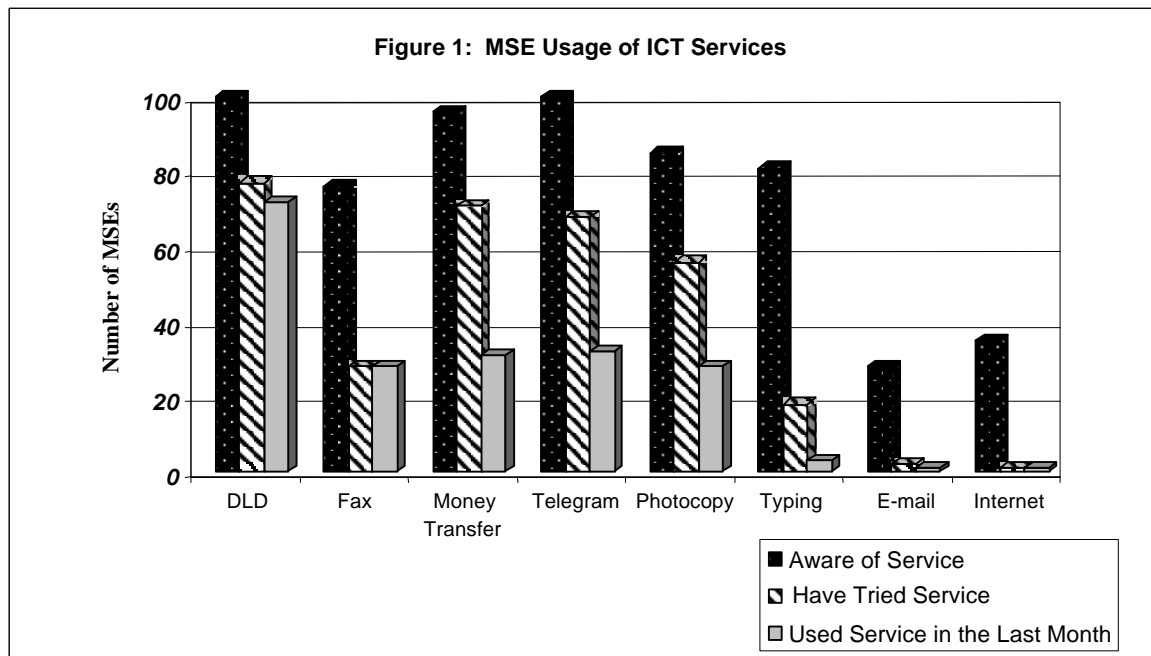
Educational levels of MSE PCO customers are high. Customers' businesses generally extended beyond their immediate area; the majority have customers or suppliers in other provinces of the Philippines. Enterprises employed on average five workers, including an average of 2.4 family members. Ninety percent of enterprises employed 10 or fewer workers, including family members. Interestingly, ownership of ICT equipment is high.

Many MSEs that operate only in the local economy with local buyers and suppliers and almost exclusively face-to-face business dealings are probably not using basic telecommunications services for business purposes. They either do not see a need for these services or, particularly for higher end services, are unaware of them. The survey's telecommunications customers represent a higher income, more growth-oriented group that is expanding its customer and supplier base beyond the local area.

⁵ National and regional figures from the National Statistics Office Web page.

CHAPTER THREE CUSTOMER BEHAVIOR AND SATISFACTION

Figure 1 shows the awareness and usage of ICT and related administrative services of the 100 MSEs surveyed. Using these data, along with data on frequency and amount spent (presented below), it is possible to calculate a rough estimate of the market size for various services.⁶ Assuming that the PCOs in Mindanao are reasonably representative of Bayantel PCOs nationwide, Bayantel is earning roughly 4 million pesos (US\$100,000) per month from MSEs on domestic long-distance calling services. Bayantel is earning 600,000 pesos (US\$15,000) on fax, 800,000 pesos (US\$20,000) on money transfer, and 325,000 pesos (US\$8,125) on telegrams from MSEs each month. Making a guess that Bayantel has approximately 30 percent of the national PCO market, the total market size for domestic long-distance calling, fax, money transfer, and telegram service is over 19 million pesos (US\$475,000) per month or just under 229 million pesos (US\$5.7 million) per year.



⁶ Bayantel earnings per service are calculated as [percent of MSEs customers who are regular users of the service x the total number of MSE PCO customers per month] x average MSE frequency of use per month x average MSE amount spent per visit. The total number of MSE PCO customers per month is calculated by taking the average number of customers per day in the Mindanao PCOs x the approximate percent of customers who are MSEs (20 percent) x the number of Bayantel PCOs nationwide. Owned offices and franchises were calculated separately since there are generally many more customers in owned offices than in franchises. This technique for estimating market size is from Dr. Ned Roberto, *User-Friendly Marketing Research*, Life Cycle Press (Asia), 1996.

Table 5 shows the awareness, reach, and retention for various ICT services. “Awareness” is defined as being able to correctly describe a service.⁷ “Reach” is the number of MSEs that have ever tried the particular service from those that are aware of the service. “Retention” is the number of MSEs that have used the service in the last month from those that have ever tried the service; it is used here as a proxy for the regular use of the service.

Table 5: MSE Awareness, Reach, and Retention of ICT Services

Service	Awareness: % Aware of Service	Reach: Of Those Who Are Aware, % Who Have Tried Service	Retention: Of Those Who Have Tried Service, % Who Used It in the Last Month
DLD	100%	77%	94%
Fax	76%	37%	100%
Money transfer	96%	74%	44%
Telegram	100%	68%	47%
Photocopy	85%	66%	50%
Typing	81%	22%	*
E-mail	28%	7%	*
Internet	35%	3%	*

* Numbers too small for reliable estimates

Source: MSE Survey

The table shows that each service has its own marketing challenges. For example, although 77 percent of the people who know about domestic long-distance calling have tried it, only 37 percent of those who are aware of fax service have tried it. It has clearly been difficult to induce MSEs to try fax service. However, those that try fax service find it useful and continue to use it. In contrast, both telegrams and money transfers enjoy reasonably high reach but low retention. It is likely that this is due to MSEs turning to substitute products — checking instead of money transfer and phone or fax service instead of telegrams. Both awareness and trial of e-mail and Internet among MSEs are very low. To successfully sell these services, a service provider would first need to increase awareness of the service and its benefits. It might then be necessary to offer inducements for customers to try the service. However, even if there were higher awareness and reach, the survey numbers are too small to make any reliable conclusion about the likely retention of customers for e-mail and Internet services.

MSEs’ stated need for services matched reasonably closely their actual usage. Calling ranked as the most important service. Money transfer and telegram services still ranked high despite their apparent replacement by other services. International services are not yet very important to MSEs, probably because few MSEs are directly importing or exporting goods. Despite the low usage, 14 percent of MSEs stated that e-mail was important to their business and 12 percent said Internet was important, showing that there may be a market for these products. (See Table 6.)

⁷ This technique for analyzing consumers’ awareness and usage of services is from Dr. Ned Roberto, *User-Friendly Marketing Research*, Life Cycle Press (Asia), 1996.

For services that MSEs were aware of but did not use, almost all stated that it was because those services were not needed in their businesses. Very few stated that this was because they could not afford the service or because the service was inaccessible or inconveniently located. MSE' claims that services were not needed by their businesses do not appear to correlate with the distance of buyers and suppliers from the MSEs' businesses. This result suggests that increasing the market for ICT services does not necessarily require changes in the way MSEs do business; instead, MSEs must be shown the actual business benefit that the services would have for their businesses. Increasing the demand also does not necessarily require lowering the price or making services more accessible.

Table 6: ICT Services Needed by MSEs

Service	Percentage
Local calling	92%
Direct long-distance calling	89%
Money transfer	38%
Telegram	35%
Local fax	31%
Direct long-distance fax	31%
Photocopy	18%
International calling	14%
E-mail	14%
Internet	12%
International fax	8%
Typing	8%

Source: MSE Survey

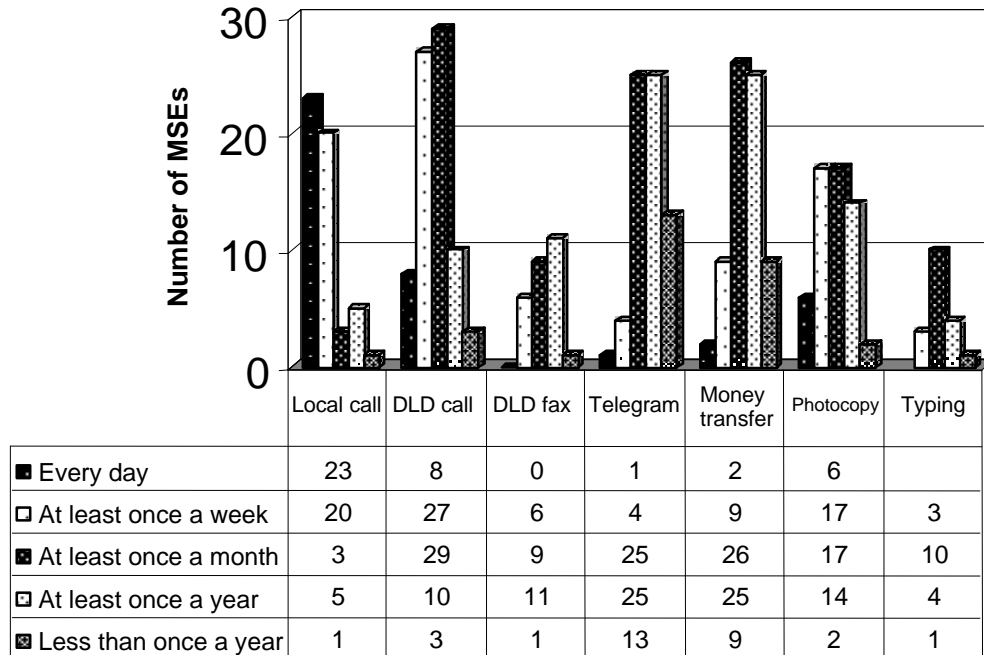
Generally, MSEs favor using PCOs for domestic long-distance calling, faxes, and telegrams. In addition to Bayantel PCOs, MSEs report using PLDT, PilTel, and PT&T. Local calls are made from pay phones and neighborhood businesses as well as PCOs. MSEs prefer using banks, rather than PCOs for money transfers. MSEs get their photocopying and typing services from neighborhood businesses and specialized service centers. This result indicates that service providers are somewhat specialized and do not span the whole range of telecommunications and related business services.

Brand or location loyalty for the use of telecommunications facilities is high. One hundred percent of MSEs surveyed that use public calling facilities always make their local calls from the same location, and 81 percent always make their long-distance calls from the same location. Loyalty to one service provider was similarly high for other services. This loyalty indicates that entering the business of providing telecommunications services where existing services already exist is difficult. MSEs' habits are a powerful force in their choice of service provider, and companies have had limited success luring existing customers away from their usual location for purchasing services.

The reported frequency of use again shows a different pattern for each service. Reported frequency of use was highest for local calling; 23 percent make a local call every day, and another 20 percent make a call at least once a week. Twenty-seven percent make a domestic

long-distance call at least once a week and 29 percent at least once a month. Frequency was less for other services. Those using long-distance calling services most often are the youngest and the oldest businesses and those with higher sales, although the correlation appears weak. Male-owned businesses seem to make more frequent calls than female-owned businesses. Frequency of calling does not seem to correlate with household income or whether businesses are in the formal or informal sectors. (See Figure 2.)

Figure 2: Frequency of Service Use



MSEs spend on average P78 (US\$1.95) per visit on domestic long-distance calling. Assuming the frequently reported MSE use of three calls per month, this amounts to 8 percent of the most frequently reported monthly sales. MSEs spent slightly more on money transfers, P97 (US\$2.43) per visit, and domestic long-distance fax, P99 (US\$2.48) per visit. They spent less on telegrams, only P57 (US\$1.43) per visit. Overall, MSEs are spending a small but significant part of their resources for their use of telecommunications services. Those businesses with higher sales are spending slightly more than those with lower sales. Women entrepreneurs seem to spend more than either male entrepreneurs or family-owned businesses.

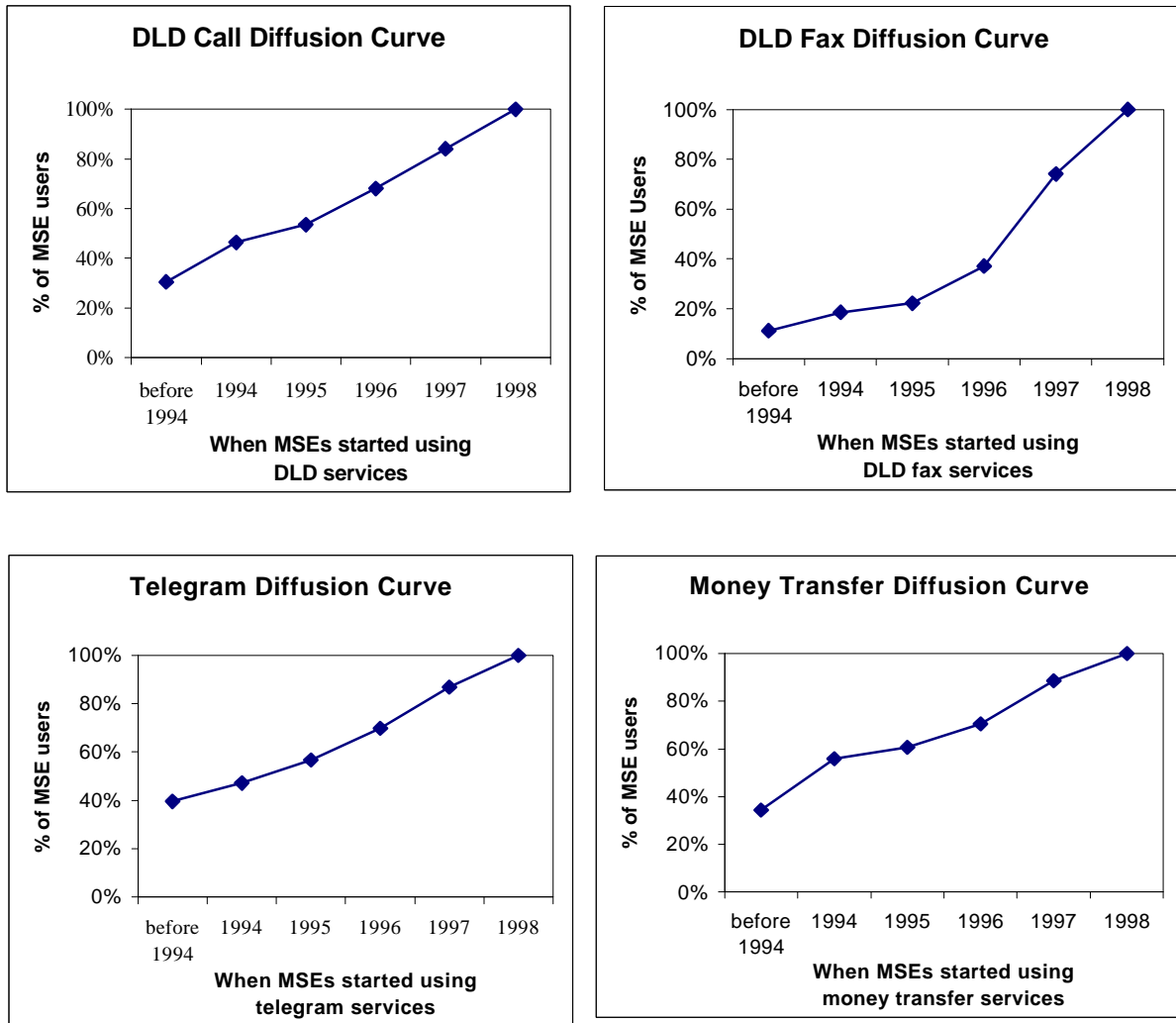
The diffusion curves in Figure 3 show when MSEs first began using that particular service.⁸ There is a marked difference between fax services and the other three services shown: long-distance calling, telegram, and money transfer. Fax service just gained popularity in the last two years; over 60 percent who use the service began using it in the last two years. The other

⁸ This technique for analysis was originated by Everett M. Rogers and is from E. M. Rogers and F. F. Shoemaker, *Communications & Innovations: A Cross-Cultural Approach*, NY: Free Press, 1971, and originally presented in E. M. Rogers, *Diffusion of Innovations*, NY: Free Press, 1962.

services show the highest acceptance rate more than five years ago. Although the number of new customers for long-distance telephone service is still increasing slightly, the number of new customers for telegram and money transfer is declining, consistent with the hypothesis that substitutes are replacing these services.

The “innovators,” those that started using various telecommunications services first, tend to be male-owned, sales/trading businesses with higher than average sales and household incomes. The “laggards,” those that only recently started using various telecommunications services, tend to be newer, female- or family-owned businesses.

Figure 3: ICT Service Diffusion Curves



MSEs learn about Bayantel PCOs a variety of ways. Sixty-two percent saw an office while walking by. Another 33 percent learned about them from family or friends, and 22 percent saw advertisements on television. The remaining MSEs learned about Bayantel through a

business association, in the newspaper, or on the radio. This result underscores the importance Bayantel places on locating offices in high pedestrian traffic zones.

Generally, MSEs are satisfied with Bayantel PCOs; most provider characteristics received good satisfaction ratings. The survey asked MSEs to rank 13 provider characteristics on importance and satisfaction with Bayantel's service. The results are shown in Table 7.⁹ The numbers in parentheses indicate the rank of the feature. The first number ranks importance, the second satisfaction.

Table 7: Importance of Characteristics and Satisfaction with Bayantel PCO Services

	High Satisfaction	Low Satisfaction
High Importance	Strengths Cleanliness (3,1) Clarity of connection (4,3) Comfortable waiting area (5,2) Friendly/helpful attendants (6,6)	Weaknesses Accuracy (1,5) Privacy (2,12) Confidentiality (7,13) Comfort while using service (8,11)
	Waste Variety of services (12,4)	Indifference Clear layout (9,9) Waiting time (11,10) Convenience of location (10,7) Distance from business (13,8)
Low Importance		

Source: MSE Survey

The results show that Bayantel's strategy is meeting customer demand. A focus on the quality of connection and a clean office with a comfortable waiting area matches MSEs' areas of importance. The relatively low importance of a variety of services shows that MSEs are not looking for a "one-stop shop" to meet all their business service needs but look to Bayantel PCOs for specialized telecommunications services. Interestingly, convenience of location and distance from MSEs' businesses received relatively low importance ratings, showing that MSEs are willing to go out of their way to use telecommunications services. Bayantel received relatively low satisfaction ratings on many characteristics that received low importance ratings, showing that it does not waste money on unimportant service features.

Data from the survey indicate that telecommunications services help MSEs to be more competitive by reaching their suppliers and buyers faster and by saving time and money. MSEs use PCOs principally to communicate with buyers and suppliers. To a lesser extent, they contact business partners, persons who can give them updated market prices, and contractors. They use telecommunications mainly to exchange information on market prices and product availability. To a lesser extent they discuss the particulars of purchase orders, such as negotiating better credit terms and incentives or specifications of orders. Other information exchanged includes consultations on marketing strategies and other business operations, updates on new products or services, and information about new suppliers or buyers. Although telecommunications is important to MSEs' daily operations, MSEs appear

⁹ This technique for analyzing the importance of features and satisfaction with services was originated by Dr. Ned Roberto.

to use it less for business development, such as looking for new buyers. Bayantel confirms that its business customers mainly use its services for transactional purposes.

Most MSEs report a range of benefits from the use of telecommunications. The most common are saving time, saving money on transportation costs, and getting an immediate answer to a question. Other benefits reported include communicating with more buyers or suppliers, getting information needed for their businesses, and more easily comparing prices or bargaining with suppliers or buyers. PCOs are clearly a very valuable service to MSEs, as shown in Table 8. Of those surveyed, 74 percent said that access to the telecommunications services they use has definitely increased their profits. Although entrepreneurs with higher sales and higher incomes were slightly more confident that telecommunications services increase their business profits, the differences among MSEs were small.

Table 8: Has Access to Telecommunications Services You Use Increased Your Business Profits?

Definitely	74%
Probably	17%
Maybe	9%
No	0%

Source: MSE Survey

There does not appear to be a great deal of felt unmet demand for other ICT services from current users. Fifty-two percent of MSEs surveyed did not feel that there were any services from a list of ICT services that they wanted but could not get (see Table 9). The greatest demand is for a land-line telephone. Unmet demand for information services was reasonably high considering the low level of awareness of higher end services. Demand for information came disproportionately from businesses with higher sales, indicating that larger businesses feel more need for information than smaller businesses. This result shows that information services are probably more in demand as MSEs grow and begin to think about business development rather than concentrate only on business operations.

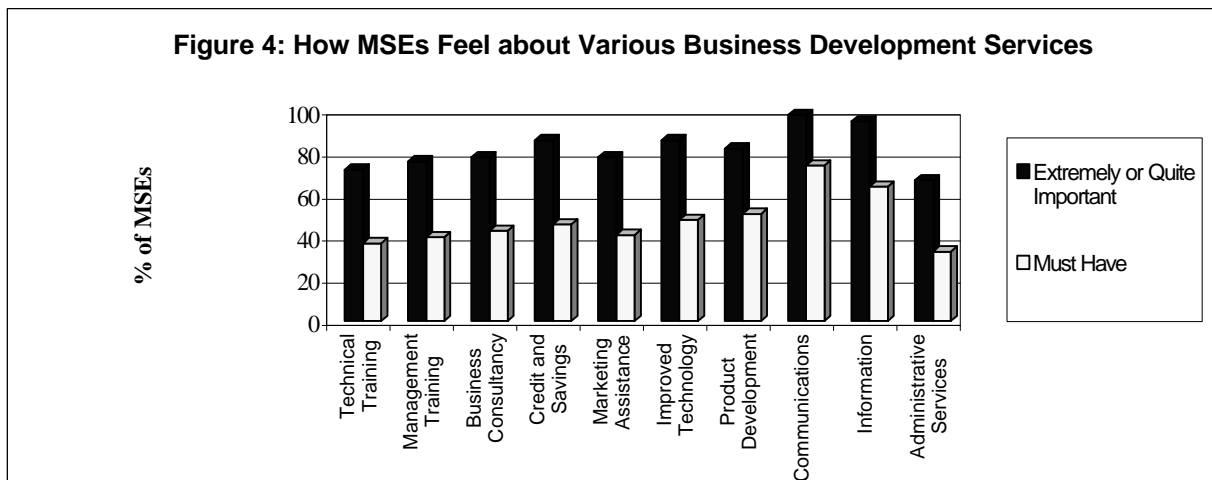
Table 9: Felt Unmet Demand for ICT Services

Service	Percentage
None	52%
Land line (telephone)	18%
Local fax	11%
Internet	11%
Information on competitors	7%
Information on prices and markets	6%
Information on suppliers and technology	6%
E-mail	6%

Source: MSE Survey

Although there is not much felt unmet demand for higher end ICT services, product concept tests¹⁰ conducted with consumers who were not aware of various services show that these services may have a market among MSEs. Ninety-four percent of respondents in an e-mail product concept test initially provided positive comments about the service. Thirty-three percent said they were definitely interested in e-mail, and another 32 percent said they were probably interested. Of those who were interested in purchasing the service, 72 percent stated that they would pay more per line than the current price for sending a fax.¹¹ This figure shows an opportunity for high initial market penetration if awareness about the service is increased. E-mail may be in demand because, like Bayantel's other PCO services, e-mail can facilitate transactions. After the service was explained, MSEs could see that, like telephone or fax, e-mail could help them reach buyers and suppliers quickly and inexpensively.

In product concept tests, the interest in Internet was not as high. Only 17 percent said they were definitely interested in buying Internet service, while 32 percent said they were definitely not interested in buying Internet service. This service may seem less attractive for two reasons. The first is that MSEs seem to want information as opposed to access to the Internet. In other words, they would rather have someone else process the information for them than take time to search for it themselves. This finding is consistent with the notion that business culture is an oral and not a written culture and that many microenterprise owners do not exhibit information-seeking behavior. The second reason may be that the Internet was explained in the product concept test as a business development tool where MSEs could find information on suppliers, buyers, competitors, technology, and production techniques. E-commerce was not mentioned. In the minds of MSEs, this would not help them with their daily transactions, like other PCO services, but rather help them develop their businesses over the medium term. The question on unmet needs showed that only high-end businesses in the survey were interested in information for business development. Both factors suggest that ICT tools can only complement and not substitute for other means of providing information for business decisions to MSEs.



¹⁰ A product concept test introduces respondents to a product or service with which they are not familiar by describing the product and its benefits. Respondents are then asked questions about their interest in buying the product.

¹¹ This technique for testing consumers' price sensitivity and determining the revenue maximizing price is from Dr. Ned Roberto, *User-Friendly Marketing Research*, Life Cycle Press (Asia), 1996.

MSEs were asked to rate a range of business development services on their importance to their businesses. For each service that an MSE said was extremely or quite important, the MSE was asked whether it must have this service, it was nice to have the service, or it could do without the service. The results are shown in Figure 4. MSEs in the survey overwhelmingly ranked communications services as most important, followed by information services. Although the survey may be biased because it dealt specifically with these services, the results show that these services are at least as important to MSEs which use them as more traditional business development services. The survey also indicates that “transaction facilitation services” which help MSEs lower their costs of doing daily business are as important to them as business development services which help them grow their businesses over the medium and long term. Transactional services are particularly important for smaller MSEs that are focused on business survival rather than business growth.

CHAPTER FOUR FINANCIAL INFORMATION

Pricing decisions. Two concerns determine the prices charged for services: government regulation and competition. For long-distance services, the possible range of prices allowed by the National Telecommunications Commission is small, limiting the range of choice to one that Bayantel managers do not see as significant in terms of market demand. Although PT&T prices in some areas are slightly less than Bayantel prices, Bayantel's market research shows that customers generally do not perceive a difference. Prices for other services are determined by what the market will bear and what competitors are charging. However, prices cover all expenses and offer a reasonable profit margin to the provider.

Payment terms. Bayantel PCOs do not offer credit except in rare cases. Although offices once offered credit, the company found that collection costs did not justify the added revenue. In fact, Bayantel found that few customers permanently stopped using the PCOs after the credit policy was changed. Currently, all services must be paid for immediately after use.

Subsidies. Bayantel is a private company and does not receive any subsidies. All costs for operations, new capital assets, product development, market research, and opening of new branches are borne by the company.

Profits. Bayantel declined to provide specific financial data on the PCOs. However, the storefront unit as a whole is profitable, and most of the PCOs are profitable. The exceptions are a few owned offices where the company believes market potential exists but has not been realized yet and some franchises that either are new or are in poor locations but the owner maintains them for reasons other than profit.

Revenues. Revenues vary widely. The two key determinants of revenue are number of customers and amount spent per customer. Urban customers generally spend more than rural customers; one manager contrasted an urban office where customers spend on average P100 per visit with a rural/peri-urban office where customers spend on average P50 per visit. Consequently, monthly revenues can vary from P30,000 for a small rural office with approximately 20 customers per day to P300,000 for an urban office with 100 customers per day. (See Table 1 in Chapter Two.) Domestic long-distance calling and faxing make up the bulk of revenues for all PCOs -50 to 85 percent of revenues, according to managers' estimates.

Expenses. The two biggest ongoing expenses for PCOs are personnel and office rent. Offices employed from 2 to 4 people, a figure that had decreased significantly in the past year when Bayantel cut its regular staff in Southern Mindanao from 80 to 27, although some offices have added contractual staff. This decrease was made possible by the purchase of additional computers, which allowed each staff person to manage more responsibilities. Office rent varies depending on the size of the office and the location. Although one urban office pays approximately P15,000 for its office space, an owned peri-urban office spent only P5,000 and

a franchised rural office spent only P2,500. Other key expenses include janitorial services, utilities, and supplies. (See Table 10.)

Table 10: Estimated PCOs Recurring Monthly Expenses (Pesos)

Line Item	Low	High
Personnel	13,500	35,000
Rent	2,500	15,000
Utilities	2,500	18,500
Janitorial services	1,500	8,000
Supplies	2,000	20,000
Maintenance	200	2,000
Depreciation*	485	4,900
Total	22,685	103,400
Total in US\$	\$567	\$2,585

* Straight line over 5 years

Source: PCO managers; estimates based on observation

Start-up costs. Start-up costs for PCOs vary. Owned branches and super agents have higher start-up costs because of the higher number of lines, greater amount of equipment, and fancier offices. Regular agents have less phone lines, less office equipment, and simpler offices. Approximate start-up costs are presented in Table 11.

Table 11: Estimated Start-Up Costs for a PCO (Pesos)

Line Item	Regular Agent		Super Agent/Branch	
	Number	Cost	Number	Cost
Lines	2 radios	2 M-2.5 M	4-6 satellites	3 M
Booths	1-2	3,000	4-5	9,000
Telephones	2-3	8,000	7-8	22,500
Computers	0	0	2	100,000
Printers	0	0	2	90,000
Fax machine	1	13,500	2	32,000
Air con/fan	2 fans	4,000	2 air cons	28,000
Waiting area	1 bench	1,000	10 chairs	25,000
Counter	1	2,500	1	5,000
Service area chairs	2	4,000	4	14,400
Office renovation	minimal	4,000	extensive	30,000
Personnel training	1	5,000	3-4	17,500
Total (Excluding Lines)		45,000		373,400
Total in US\$ (excluding lines)		\$1,125		\$9,335

Note: Agents do not pay the cost of line installation, telephones, or personnel training. Bayantel pays these costs directly. Agents pay Bayantel a franchise fee.

Source: PCO managers; estimates based on observation

Growth. Bayantel reports improved financial performance over the last five years. Most managers reported an increase in the number of customers per day over the last several years, some by as much as 70 percent over the last three years. It is not clear how much growth represents customers changing from other PCOs and how much represents new customers to

the PCO market. Assets in most owned branches have increased, partly because of the increase in customers and partly because of the substitution of computers for personnel.

However, all offices reported stagnating revenue growth in 1998 because of the economic slowdown in the Philippines. The PCO business, which is extremely dependent on the local economy, is seasonal. Demand peaks during the beginning of the school semesters, at the end of each business quarter, and during fiestas. Demand is generally low during the summer months.

CHAPTER FIVE OPERATIONAL AND STRATEGIC INFORMATION

OPERATIONAL SYSTEMS

Bayantel depends on systems that enable the organization to reach a high volume of customers at a reasonably low cost. The key systems are:

Structure. Bayantel's structure is a typical corporate hierarchy. However, PCO managers have considerable flexibility to recommend changes in strategy such as the hours the PCO is open, differences in services, and equipment upgrading.

Management. There are three levels of managers: local managers for each PCO, regional managers, and central managers based in Manila. Local managers have responsibility for their own PCO as well as monitoring the franchises in their area. The regional office handles accounting, administration, technical support, regional recruitment, and some marketing.

PCO staff are paid from the regional level, and the operating budgets, including travel and supplies, are handled at the regional level. PCO policy is made at the national level. Support services provided by the national office to the regions and PCOs include product management and development, market research, national level marketing, and human resource development.

Customer service. Attendants at each PCO assist customers with their service needs. A customer makes a request on forms provided at the counter and then sits in the waiting area until the request is handled. For phone calls, the customer is called to a booth once the call has been connected.

Budgeting. Revenue targets and expense budgets are made annually through a consultation between local managers and their regional manager. Revenue growth projections are based on historical trends in customer traffic, competition, economic trends, and changes in the infrastructure of the area. Equipment upgrading requests from local managers are taken into consideration, and their projected effects on revenues are included in targets. Similarly, budget expenses are projected based on historical data and planned changes in the PCO. The budget of each PCO includes rent and utilities. However, requests for supplies are handled at the regional level. Each office does not report profit per se, but rather revenues and expenses against these annual projections.

Feasibility studies. Before either a franchise or company-owned office is approved, Bayantel undertakes a market feasibility study focused on potential revenues and expenses. Revenues are estimated based on projected traffic for the location and revenue per customer. The projected traffic in turn determines the number of lines installed at an office. Data are mainly gathered from the government municipal office. A technical feasibility study is conducted to determine the appropriate technology for the lines: microwave or satellite

(assuming land lines are unavailable). The decision on whether to approve an office, assuming technology costs within reasonable bounds, is based on the following criteria:

- Population of the area;
- Municipal income –minimum should be P20 million (US\$500,000);
- Average income –minimum should be P5,000 (US\$125) monthly per household (slightly above the poverty threshold);
- Accessibility by roads and sea;
- Chief means of transport –pedestrian traffic is most important;
- Predominant industries –prefer trading, fishing, mining, and export industries;
- Number of schools and banks;
- Existing means of communications –preferably without a local exchange carrier and no PCO competition; and
- Adjacent municipalities –for example at a crossroads of two municipalities.

Managers agree that the key is pedestrian traffic. Those offices located in or near markets, churches, and municipal offices are promising. However, once these criteria are satisfied, costs must be kept low to ensure profitability.

Human resource management. Human resource management for all staff is handled from the central office in Manila. Bayantel implements a companywide incentive strategy for all regular employees. Incentives are based on meeting targets agreed on during the annual planning. All regular staff of Bayantel receive periodic training in such topics as customer service and management.

Product development. Bayantel is actively developing new products for the PCOs, as well as modifying existing ones to deal with changing market circumstances. In 1996, Bayantel conducted a usage, attitude, and image study and regularly conducts market trials for new products, changes in existing products, or changes in image. For example, market trials showed positive customer feedback from the office upgrading, which formed the basis of the “minimum one look” strategy. Bayantel is currently market testing a range of new PCO products from retail sales to e-mail and Internet access. The aim of product development is both to persuade existing customers to spend more per visit and to increase the overall customer base. Bayantel also periodically analyzes its existing products. For example, Bayantel has phased out its “socialgram,” similar to a singing telegram, because customers for this service do not match the profile of typical Bayantel customers and competition from specialized providers was too strong.

FRANCHISING

More than 60 percent of Bayantel PCOs are franchises. Franchising has allowed Bayantel to grow more quickly than it would through company-owned offices only. These franchises, or “agencies” as the company calls them, are divided into super agents and regular agents. Super agents pay a fee twice as high as regular agents, they generally have more lines, and their minimum office specifications resemble those for branches. Regular agents have fewer

lines and minimal requirements for their offices. Agents are generally local business people, retirees, or salaried workers. Bayantel looks for applicants who have integrity, who are respected in their communities, who have similar principles as the company, and who have sufficient financial resources for the venture.

Responsibility for accepting franchise applications, negotiating with potential franchise owners, and monitoring franchises lies with the manager of the nearest owned branch. The feasibility study is conducted by the regional office, and recommendations are made to central management by the local and regional managers.

Start-up expenses are divided as shown in Table 12.

Table 12: Breakdown of Responsibilities for Start-Up Costs

Agent	Bayantel
<ul style="list-style-type: none"> ■ Franchise fee ■ Office renovation ■ Office equipment (excluding telephone lines and telephones) ■ Office furnishings ■ Rent deposit 	<ul style="list-style-type: none"> ■ Market and technical feasibility studies ■ Installation of lines and necessary technical facilities (radio or satellite) ■ Telephones ■ Signs ■ Paper supplies, such as forms and receipts ■ Installation of an accounting/reporting system ■ Staff training ■ Initial advertising for office opening

Source: Bayantel managers and agents

Agents are responsible for all recurring expenses, with the exception of national and regional marketing and paper supplies. The study found that most agents do minimal, if any, local marketing, choosing to rely on Bayantel's national and regional campaigns. Bayantel conducts annual reviews with agents in order to assist them in increasing revenues. Bayantel also provides technical support to agents as needed. Some agents expressed concern that market feasibility studies and ongoing support were not of sufficient quality.

Agents may choose to close their office at any time. However, the franchise fee is completely nonrefundable. If an agent wants to change the location of the franchise, he or she must first get permission from Bayantel.

Bayantel does not provide any assistance with financing. Most agents finance start-up costs either with their own funds or with a loan from a bank. In some cases, several people pooled their finances to own an office. Agents estimated their start-up costs as P150,000 (US\$3,750) to P200,000 (US\$5,000), with the franchise fee being approximately half of the start-up costs. Recurring fees from the agent to Bayantel are based on revenues. The agent keeps 35 percent of domestic long-distance calling revenues and 12 percent of international calling revenues. Because fees to Bayantel are based entirely on revenues, the franchise owner has the incentive to keep costs as low as possible

Opening a franchise represents a good opportunity for potential small entrepreneurs. Provided the office is located in a promising location, the business offers steady revenues and reasonable profits. However, resource requirements prohibit would-be microentrepreneurs from eligibility. Because agents generally raise the required capital from their own resources or bank loans, it is clear that they do not belong to the poor.

Although official company policy does not favor either regular or super franchises, local and regional managers in Southern Mindanao perceive a push toward super franchises over regular franchises. They state that this push is due to higher profits from super franchises and technical issues that favor satellite over radio technology. This perception puts those agents requesting regular franchises, which are generally within reach of poorer entrepreneurs, at a disadvantage. Because super franchises generally have more lines and higher start-up costs, there may also be less tendency to establish franchises in more remote, lower income areas because of the lower volume of traffic.

CHAPTER SIX FINDINGS AND CONCLUSIONS

SWOT ANALYSIS OF THE BUSINESS MODEL

Bayantel PCOs are meeting an important need from MSEs for basic telecommunications services, and MSEs are generally satisfied with their services. Despite being a relatively recent entrant in the PCO market, Bayantel PCOs are profitable and gaining market share. However, Bayantel PCOs face threats from substitute products and competing providers.

Table 13: SWOT Analysis of the PCOs

<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> ▪ Demand led ▪ Rationalization ▪ Emphasis on profits ▪ Professionalism ▪ Wide outreach 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> ▪ Lack of outreach in remote areas ▪ Selected service features
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> ▪ Diversification in ICT business services ▪ Adding other low-end services 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> ▪ Substitute products ▪ Pay phones and pay phone businesses

Strengths

Demand led. PCO services are chosen according to market demand. The company pays as close attention to the service features that consumers want as the services themselves. Bayantel conducts market tests for new service and office features before adding them to all PCOs. The current structure allows standardization of the service mix and many systems while maintaining flexibility for managers to meet variances in local demand through variations in service and office features. This allows Bayantel to take advantage of economies of scale and meet differences in demand and competition among areas.

Rationalization. Bayantel is in the process of rationalizing the criteria for opening a new office or approving a franchise. This increased attention to market feasibility of PCOs has increased profits.

Professionalism. Over the last several years, Bayantel has upgraded its offices, improved internal systems, increased personnel pay and benefits, and improved recruitment and human resource development. This focus has enabled Bayantel to increase volume costs effectively and improve the capacity to meet local variances in demand.

Emphasis on profits. In the last several years, Bayantel has reduced its redundancy in operations across the board and lowered personnel costs. The importance of a focus on profit

has successfully been transmitted throughout the company and is reinforced through pay incentives.

Wide outreach. Bayantel has reached a high volume of transactions through a national network of both company-owned and franchised offices. The high volume maximizes economies of scale in the development of systems, national marketing, and technology development. The high volume is necessary for achieving financial viability in telecommunications service because these services are low margin.

Weaknesses

Lack of outreach in remote areas. Bayantel's focus on office upgrading and a minimum standard look has increased the costs of opening an office, eliminating some lower income and lower population density areas from eligibility. Bayantel lacks a lower cost business model that would be more appropriate in lower volume areas, where good returns are possible.

Selected service features. Consumer research shows that Bayantel needs to improve accuracy, confidentiality, privacy, and comfort while using services in its offices in order to better meet MSEs' demand for service features.

Opportunities

Diversification in ICT business services. Bayantel has an established reputation, customer base, and functional systems for providing services that facilitate business transactions of its business customers. New developments in ICTs could lead to new services being offered to customers. These services, including e-mail and e-commerce, could be added, without significant incremental investment, using the technology network Bayantel has already established. As more medium-sized and large businesses begin to use these technologies, smaller businesses that interact with larger suppliers and buyers will increasingly demand access to these services also.

Adding other low-end services. Bayantel could increase its revenue per customer by adding other services that appeal to its current customer base. For example, Bayantel could retail inexpensive consumer goods that catch the eye of its many walk-in customers.

Threats

Substitute products. Owning personal ICT equipment, including telephones, cell phones, fax machines and computers, is rapidly getting cheaper. The government mandated roll-out of land lines will encroach on Bayantel's customer base. Over 90 percent of MSEs that do not have a land line yet said that they would use PCOs less often or not at all if they were able to get a land line.

Pay phones and pay phone businesses. The most feasible alternative to PCOs are pay phones, which local exchange carriers are putting up as part of their government-mandated land lines. These pay phones may seriously challenge PCOs over the next few years. Because they are operated with cards, rather than with change, the potential for vandalism is minimized and the need to put phones in a secure location is decreased. In addition, sales of phone cards can offer a boost to local retail MSEs. The local exchange carrier in Southern Mindanao also aims to challenge PCOs by encouraging local retail stores to build their businesses around pay phones. They plan to encourage local retailers to attach a fax machine to the pay phone in their shops and to offer other complementary services. The local retailer would use phone cards to send faxes and mark up the price to customers appropriately. This lower cost business model will challenge PCOs, particularly in more remote areas.

THE FUTURE OF BAYANTEL PCOS

Although the roll-out of land lines will decrease the demand for basic telecommunications services from PCOs, a segment of the MSE population will continue to need these services. Smaller and lower income MSEs are adopting the use of telecommunications services, but they may use them so infrequently that it is not economical for them to pay for their own line or other equipment. In addition, traveling business people, particularly traders, will continue to need PCOs because many MSEs still cannot afford cell phones. However, Bayantel needs to take steps to counteract a potential decline in its business resulting from substitute products and to offer something more than pay phones and pay phone businesses.

PCOs face competition from competing providers that offer similar services (e.g., phone access in common facilities) and from substitute products that existing customers will turn to as prices fall (e.g., individual cell phone subscriptions). PCOs face this choice: Should they add new services that will appeal to a different type of client than their existing market, or should they add services that appeal to the type of customer they currently reach—low-income people who use common service facilities for daily communication needs? The research concluded that it would be more difficult for PCOs to move into new service areas—such as customized information provision—that would enable them to reach a new type of customer and retain customers who had graduated to owning communication equipment. Instead, the research found that Bayantel should diversify into e-mail and e-commerce because these services, like its other services, facilitate daily transactions. Although Bayantel has the technology, Bayantel PCOs would find it difficult to diversify into providing Internet access because it would require appealing to a different type of customer (e.g., larger and more complex) with different expectations (e.g., business development vs. operations). It would also require Bayantel to increase the skills of its front-line staff, which would significantly increase costs, and to add new systems for providing a different kind of service, a significant investment.

Adding e-mail and e-commerce will help Bayantel retain customers that have graduated into owning a land line but are not yet ready to purchase a computer and pay for an Internet service provider. It would also help Bayantel gain new customers who already own some

telecommunications equipment but not this type yet. These MSEs would be a similar to customers Bayantel serves now: low-income enterprises that need transaction facilitation services. E-mail and e-commerce would also appeal to many walk-in customers who want to communicate with friends and family or want to order goods over the Internet.

Adding e-mail services to Bayantel offices would not require much change. Many offices already have e-mail capability for internal use. Customers could submit an e-mail message with an e-mail address to the attendant, who would type the message into the computer and send it. Attendants would not require much additional skill because all of them already handle computers. If offices choose, they could accept incoming e-mail using the same systems they currently use for incoming faxes. The e-mail service could be priced cheaper than fax service to attract customers and still make a profit.

Adding e-commerce services would be more complicated and require some market testing to determine how willing customers would be to purchase the service. It will be important to keep the service simple, both for attendants and customers, and to keep it focused on transaction facilitation rather than delivery of information. The simplest solution would be to provide a list, or catalog, of goods and services customers could order through the e-commerce service. Attendants would need to be familiar with these sites and suppliers. Initially, it would be easiest to require customers to pay for orders directly to the supplier. However, once systems are established, it might be possible to accept payment for orders and forward payment through the money transfer system to the suppliers.

Although e-mail and e-commerce would enable Bayantel to increase its client base, retailing may enable PCOs to increase the amount spent per customer per visit. Much like gas stations, PCOs could retail inexpensive consumer goods that would attract walk-in customers. Market testing will enable Bayantel to learn what goods customers are most likely to buy and how they need to be displayed.

APPENDIX A

MSE CELL PHONE OWNER CONSUMER SURVEY RESULTS

Introduction to the Survey Results

The cell phone survey focused on analyzing the usefulness of cell phones for micro and small entrepreneurs, determining to what extent cell phones are a replacement for land lines in areas where land lines are scarce, and examining MSE cell phone owners' attitudes and behavior. The research on cell phone owners relied on a survey of 100 MSE cell phone owners in urban, peri-urban, and rural areas in Southern Mindanao, Davao del Norte, Davao City, and Davao del Sur.

All five of the licensed cell phone providers in the Philippines are operating in Southern Mindanao in and around Davao City: SMART, PilTel, Globe Telecom, Islacom, and Extelcom. The cell phone industry is very competitive, which means that providers must continually improve their product. PilTel started operating in Davao City in 1992, followed by Extelcom in 1993, SMART in 1995, and Globe and Islacom more recently. The market leader is SMART, with approximately 65 percent market share nationwide, followed by PilTel. The industry, which is growing rapidly in Southern Mindanao, experienced only a mild slowdown in 1998. Several companies stated that there is considerable unmet demand in rural areas because these areas are not yet adequately covered by cell sites that transmit the cell phone signals. Companies are actively pursuing this market. For example, PilTel is in the process of setting up an additional 200 cell sites in Southern Mindanao.

MSE Cell Phone Users

In the urban area of Davao City, 27 percent of MSEs contacted had a cell phone. In the peri-urban and rural areas north and south of Davao City, 12 percent of MSEs contacted had a cell phone. Cell phone owners have generally higher end businesses than public calling office users and are considerably above the norm for Philippine MSEs. Eighty-five percent of those surveyed said they were registered with the government. The majority of MSEs are in trading, but a considerable portion are in services and manufacturing. There was no significant gender difference in the sex of cell phone owners; almost half of the MSEs surveyed were joint or family owned, which is the norm in the Philippines. Education was very high, with the majority having graduated from college.

Although last month's sales were quite low for many respondents, most reported household income above their sales, indicating other sources of income. Monthly incomes for respondents were quite high compared with the 1997 average urban income of P9,488 (US\$237) and rural income of P5,604 (US\$140). Only 2 percent of households surveyed were below the poverty line. (See Table A-1 for a profile of MSE cell phone owners.)

Ownership of ICT equipment among those surveyed was high. Seventy-nine percent own a land line, indicating that cell phones are generally not a substitute for land lines but rather an addition.

Table A-1: Profile of MSE Cell Phone Owners

	Profile
Sector	<ul style="list-style-type: none"> ▪ 85% formal ▪ 15% informal
Type	<ul style="list-style-type: none"> ▪ 60% trading ▪ 30% services ▪ 9% manufacturing
Age of business	<ul style="list-style-type: none"> ▪ 40% two or less years ▪ 23% three to five years ▪ 37% more than five years
Ownership	<ul style="list-style-type: none"> ▪ 26% male ▪ 25% female ▪ 49% family/joint
Monthly sales*	<ul style="list-style-type: none"> ▪ 24% P3,000 or less (US\$75) ▪ 14% P3,001-10,000 (US\$75-250) ▪ 42% more than P10,000 (US\$250)
No. of employees	<ul style="list-style-type: none"> ▪ 79% 10 or fewer ▪ 21% 11 to 25
Location of business partners	<ul style="list-style-type: none"> ▪ 45% have customers in a different province ▪ 61% have suppliers in a different province
ICT ownership	<ul style="list-style-type: none"> ▪ 79% own a landline ▪ 17% own a fax machine ▪ 34% own a computer
Education of owner	<ul style="list-style-type: none"> ▪ 14% high school or less ▪ 28% some college ▪ 58% college graduate
Monthly family income*	<ul style="list-style-type: none"> ▪ 9% P10,000 or less (US\$250) ▪ 26% P10,001-25,000 (US\$250-625) ▪ 52% more than P25,000 (US\$625)

* Remainder did not know or refused to answer

MSE Cell Phone Owner Behavior and Satisfaction

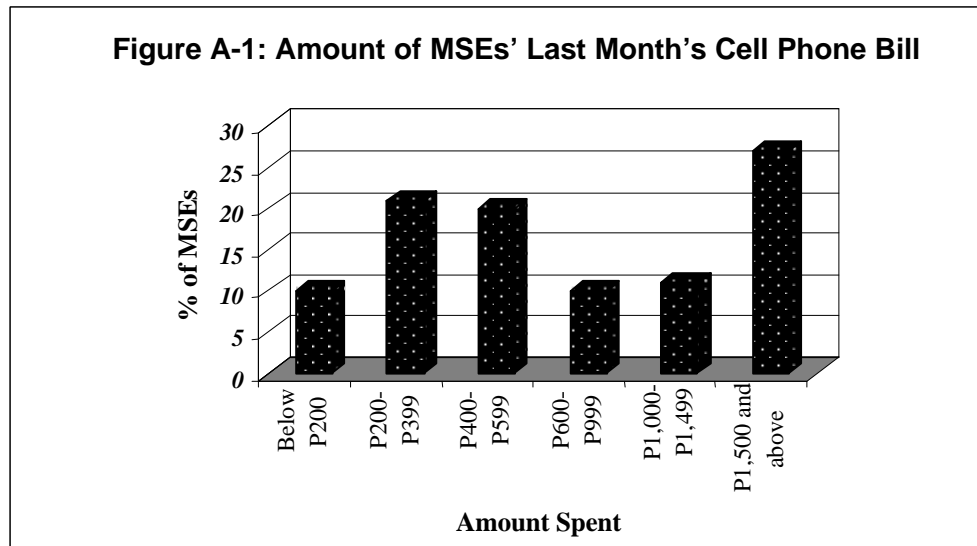
Cell phone owners usually heard about the cell phone company they use from friends and family or from TV. Other sources of information on cell phones came from the newspaper, signs, business associations, radio, and company sales agents. Forty-four percent use their cell phone every day, and an additional 39 percent use it at least once a week. Those MSEs with higher sales appear to use their cell phones slightly more than those with lower sales.

As Table A-2 shows, SMART had the highest market share of those interviewed, followed by PiTel. MSEs usually use either the plan with the lowest monthly rate and lowest number of free minutes or pre-paid phone cards. Customer loyalty is not high; 42 percent had used another type of cell phone before buying the one they own now.

Table A-2: Cell Phone Companies Used by MSEs

Company	Percentage
SMART	48%
PiITel	30%
Extelcom	15%
Globe Telecom	5%
Islacom	2%

On average, MSEs spent P1,100 (US\$27.50) on their last month's bill, although more than half spent less than P600 (US\$15). (See Figure A-1.) MSEs estimate that, on average, 67 percent of their calls were for business, while the rest were for personal reasons. Based on this figure, MSEs spend an average of P737 (US\$18.43) per month on business calls. Ignoring outliers, this represents approximately 2 percent of MSEs' average monthly sales. Although those with higher sales generally spent more, the correlation appears weak.



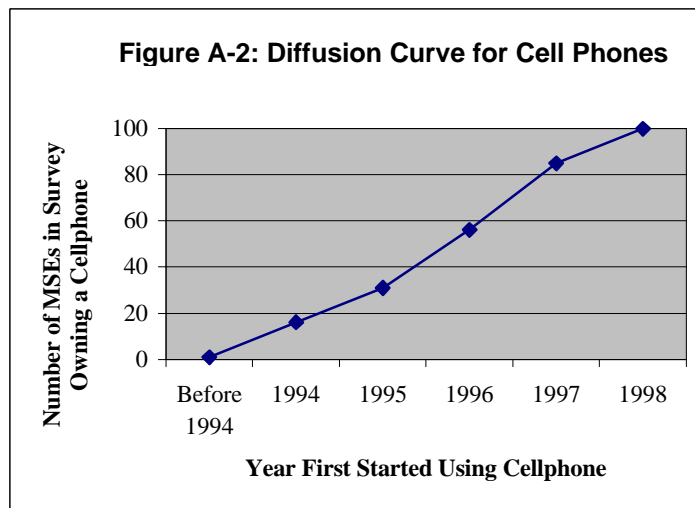
Assuming a conservative average of 15 percent of registered MSEs have cell phones and a conservative estimate of the MSE population in the Philippines, 474,466,¹ the market size for cell phones from MSEs in the Philippines is just under a billion pesos per year (US\$25 million).²

¹ 1995 figure of registered MSEs from the Bureau of Small and Medium Business Development of the Department of Trade and Industry.

² Market size is calculated as (%users)(market population)(average spent per month)(12 months) or (15%)(474,466)(1,100)(12) = 943,402,680. This technique for estimating market size is from Dr. Ned Roberto, *User-Friendly Marketing Research*, Life Cycle Press (Asia), 1996.

As Figure A-2 illustrates, the MSE market for cell phones has shown consistent market growth over the last five years.³ It appears that it may be starting to level off and will require further drops in price to gain new customers. Cell phone companies are lowering their prices to compete with one another. The MSEs who were the first to purchase cell phones are generally registered sales or services businesses with higher than average sales.

Cell phone owners are generally satisfied with their cell phone service, although there is room for improvement. The features that are more important to MSEs are that the phone can be used in a wide area, the connection is clear, and the phone is portable, handy, and quick. It is clear from customer satisfaction why SMART is the market leader among MSEs. SMART's strengths are clarity of connection, wide coverage, and portability; the company has no real weaknesses. PilTel also excels in clarity, portability, and quick service. Extelcom on the other hand is weak in providing wide coverage and quick service. Similarly, level of coverage, speed of service, and ease of application are Globe's weaknesses.⁴ The contrast shows why meeting MSEs' demand for service features is critical.



Data from the survey showed that cell phones help MSEs be more competitive. Cell phone owners generally use their cell phones to contact suppliers, buyers, and business partners. The most frequent information exchanged is on market prices and product availability (see Table A-3). MSEs reported a range of benefits from cell phone service, most commonly, saving time, saving money on transportation costs, and getting an immediate response to a question. Other benefits included communicating with more customers, contacting new suppliers, getting information needed for business, comparing suppliers more easily, and being able to bargain better because they know the market price. MSEs tend to use their cell phones more for daily transactions than business development such as finding new markets.

³ This technique for analysis was originated by Everett M. Rogers and is from E. M. Rogers & F.F. Shoemaker, *Communications & Innovations: A Cross-Cultural Approach*, NY: Free Press, 1971 and originally presented in E. M. Rogers, *Diffusion of Innovations*, NY: Free Press, 1962.

⁴ This technique for analyzing the importance of features and satisfaction with services was originated by Dr. Ned Roberto.

Table A-3: Information Exchanged by Cell Phone Owners in the Last Month

Type of Information	Percentage
Updates on market prices	43%
Inquiry on product availability	28%
Specification of purchase orders	16%
Negotiations on delivery of goods	15%
Inquiry on marketing strategies	14%
Daily business activities	12%
Bargains for credit terms	10%
Updates on new products/services	7%
Volume discounts	1%
Inquiry on new suppliers/buyers	1%
Requests for service assistance	1%

MSEs report that cell phone ownership has increased their profits. Fifty-seven percent said that cell phone use has definitely increased their profits. Another 28 percent think it has probably increased their profits. Only 3 percent think that cell phone use has not increased their profits.