THE TELEPHONE WOMPHAKATHI

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CHAPTER 1: NEW TECHNOLOGY

1.1 Introduction

There are two basic types of telecommunications subscriber networks; one is a private and the other is public. Different variants of each system means that there are a multitude of different types of telecommunications networks many of which are mutually compatible in both sectors. A large array of different types of telecommunications systems are found in South Africa. They are, however, the preserve of less than one-third of the entire population. In many South African townships, most "homeland" and rural areas and all informal settlements the telecommunications network ranges from the rudimentary to the non-existent and from the inadequate to the inefficient. Yet there exists a demand for access to telephones which should make the provision of telephones a profitable exercise.

Work undertaken by the Telecommunications Project at the Centre for Social and Development Studies, University of Natal in Durban, resulted in the invention of a New Community Agency Telephone: the 'telephone womphakathi'. The idea behind the 'telephone womphakathi' was not that it should replace any existing telephone system but rather that it should supplement and improve upon the current inefficient and inadequate public and private subscriber telecommunications networks.

This paper examines the origins of the concept, documents a seven month research trial period and notes its acceptability in four separate "homelands".

1.2 Existing Community Telephones

Some time ago the (then) Department of Posts and Telecommunications initiated an agency telephone system and in some rural areas appointed telephone agents operating with a normal telephone and a meter. This meter placed in communities was intended to alleviate some of the problems faced by the usage of coin - operated public telephones. These problems included: a general lack of public telephones, frequent vandalism resulting in many non-operative public telephones, incorrect monetary denomination for coin-specific collection boxes, numerous coins required for long-distance calls and user ignorance.

These agency telephones have however generally been regarded with great antagonism by residents of the communities wherein they are situated , primarily due to the call - charging system that they are based on. These phones operate on the basis of a complicated meter. The agent calculates the cost of the telephone call by multiplying the number of meter units against whatever the agent charges per unit. Irrespective of what the tariff is supposed to be, since the charge is displayed in meter units rather than actual monetary units, the agents are in practice able to set their own rates. This system makes it difficult for individual callers to check these costs, and as a result, cases of overcharging by the agents have been documented. Furthermore rural users have crudely calculated costs by timing their calls and comparing the costs against previous calls made from public coin operated telephones. Regularly noting large discrepancies in favour of the agents, users have limited their calls from these agents to emergencies.

The original agency telephone system therefore, by virtue of its meter being based on a unit charge system, creates the necessary space that an unscrupulous agent would require in order to exploit the telephone user. This is a not a user-friendly system.

The major disadvantages of the existing agency system have been remedied by the 'telephone womphakathi'. The principal functioning of the existing agency meters and the 'telephone womphakathi' are the same. The latter however, has been modified to display, along with metered units, monetary units of the actual cost of the telephone call. The meter displays in Rands and cents the actual amount that the call costs, and is directly visible to the user making the call. The caller thus sees exactly what the actual call costs him, eliminating any covert attempts at overcharging by the agent. An added advantage is that the caller is able to budget accordingly, and, because the system is linked to the private subscriber network, the caller unit cost is half of that of the public network. That is, a one unit call made at a 'telephone womphakathi' costs 15 cents, as opposed to 30 cents, should the call have originated from a public telephone.

The mechanisms of this system do not however provide for an allowance whereby the agent is remunerated. By charging private subscriber unit rates, Telkom, which monopolizes the public network, is not levying any

charges to cover the costs of employing an agent. Should the 'telephone womphakathi' be operated by a private entrepreneur, then if all charges are based simply on the cost of the call, and no profit is made, no incentive exists to operate such a system.

It was felt that, in order to overcome many of the existing shortfalls of the public telecommunications network, this system would have to be privately run either by profit motivated individuals or by communities on a non-profit basis for the benefit of their members. In the case of the former, it was felt that in order to compensate the owner for the usage of the telephone, a surcharge should be levied with each telephone call made.

There are two basic ways of quantifying the amount of the surcharge to be levied. The first, based on the simple principle of market supply and demand, is to allow the agent a free hand in deciding what the level of such a surcharge should be. It is argued that, over time, through market mechanisms, the acceptable level will be reached. What led to the immediate rejection of this approach was not the principle involved but the fact that the current market is flawed. Until there are either enough 'telephone womphakathis' on the market, or until a more extensive private telephone network is in operation or a more efficient public telephone system devised. Mini telephone agency monopolies would in all likelyhood emerge with the power to levy a surcharge bearing absolutely no relation to a free-market supply and demand situation. A secondary factor currently operating against this approach is the real possibility that a viable 'telephone womphakathi' system might go the same way as the Taxi Industry, in that localized cartels will emerge and control the surcharge in different areas. A system that allows this to happen benefits only those few that have control of the 'telephone womphakathi' system, and does very little for the telephone - starved public at large. Also significant is the fact that high surcharges levied on telephone usage creates a barrier to unlimited usage, thus severely limiting Telkom's profit margins.

The second (and recommended) method of deciding on the level of the surcharge is to regulate the market until such time that the ability to create monopoly situations are limited. Such a system protects both the consumer and the industry. As the consumer base is extended beyond the current one-third of the population of this country, the telecommunications industry can begin to become more profitable and, if cost effective, should

pass this benefit back to the consumer. Extensive research was undertaken on what communities thought an acceptable surcharge should be, what the prospective entrepreneurs felt they should earn per month and the potential number of calls per 'telephone womphakathi' per month. Based on this research a surcharge of 20 cents per call on calls to be made between 06:00 and 18:00 hours was recommended. In order to limit calls during 'family time' as the telephones were placed in individual homes, the surcharge on individual calls made after 18:00 up to 21:00 hours was recommended to be 40 cents. All calls made after 21:00 hours had an immediate surcharge of R2,00 per call, this exorbitant levy to be was applied so as to limit late night interference to emergency calls only. Based on the research it was estimated that the telephone agent would earn R600 per month, Telkoms would make R900 per 'telephone womphakathi' and each 'telephone womphakathi' would realize 60 calls per day.

Most of the obstacles of the existing systems have been eliminated. A public telecommunications service can be privatized, not by a large multinational but by an ordinary member of the community which it will serve or by the community itself. An entrepreneur is easily created, as it is envisaged that the capital outlay or rental for such a meter would be low. The service offered, if the recommended surcharges are not easily abused, will be cheap. The surcharge fee therefore means that for the first unit (three minutes for a local call) a user will be charged 35 cents and subsequently 15 cents a unit, which compares favourably with public telephones which cost 30 cents per unit. The risk of spending unnecessary time, effort and money getting to a public telephone, which is likely to be out of order, is eliminated. Apart from the obvious fact that the telephone is not accessible to the public at all times, the owner makes a living from it and would surely maintain it properly. From the supplier end, maintenance costs are reduced, as are costs involved in collecting money from coin - operated public telephones, increased revenue accrues and telecommunication social needs are partially met. The 'telephone womphakathi' is user friendly.

CHAPTER 2 : THE TELEPHONE WOMPHAKATHI

2.1 Introduction

Case studies of the 'telephone womphakathi' were set up in urban and rural areas. This section documents one of these cases : the Umlazi test study.

2.2 The Umlazi test study

The proto-type 'telephone womphakathi' was installed in the home of a pensioner in Section F Umlazi. A record of a number of variables relating to the 'telephone womphakathi' was kept. These are listed on the following page:

- Daily Calls made.
- Daily Times of Calls made.
- Average Cost of Calls made.
- Destination of Calls made.
- Distance Travelled to Reach the 'telephone womphakathi'.
- Positive and Negative Comments relating to the 'telephone womphakathi'

From the following table, it can be seen the initial high usage of the telephone - a daily average of 60 calls - was due to the novelty factor of having access to a telephone. This, after four weeks, dropped to an average of 45 calls per day, before increasing through the passage of time to the present average of 107 calls per day. The main reason for an initial high 'start-up' usage must be seen in terms of the fact that the average cost of making a call from an alternate private telephone was R2,00, substantially more expensive than the Womphakathi scheme.

Initially, callers used the telephone to make a call which on average lasted more than three time units.After a couple of times,however, they began to

Table 1: Record of daily calls made at the 'telephone womphakathi' (February - October)

	Number of Calls per Day each Month								
Day	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1	46	51	44	40	65	89	104	114	95
2	55	43	42	43	70	89	110	109	102
3	57	43	46	46	61	110	105	104	104
4	63	45	37	48	69	99	116	105	95
5	80	42	48	47	69	100	108	114	96
6	67	54	*P*	38	68	103	128	107	104
7	67	37	*H*	47	65	103	120	107	108
8	58	46	*O*	44	70	85	94	113	105
9	69	43	*N*	53	61	88	97	106	104
10	59	50	*E*	44	67	84	100	103	112
11	69	49	*I*	44	67	85	99	102	107
12	44	43	*B*	42	84	98	97	110	106
13	53	48	*R*	45	83	97	95	105	110
14	52	42	*E*	47	79	90	97	104	105
15	35	37	*A*	41	71	88	94	108	111
16	36	39	*K*	42	75	89	101	108	102
17	43	43	*I*	44	71	80	103	111	107
18	53	49	*D*	46	75	88	94	104	113
19	45	44	*O*	45	75	103	95	103	121
20	66	40	*W*	54	76	84	103	105	104
21	69	44	*N*	50	85	94	102	109	114
22	62	39	18	47	84	97	97	106	104
23	61	61	24	49	91	88	103	107	103
24	57	34	19	50	99	98	107	104	103
25	56	47	17	52	92	92	101	103	108
26	62	44	20	54	92	99	102	111	107
27	65	43	23	51	89	100	110	106	114
28	64	43	18	61	83	97	103	105	111
29	–	40	23	69	89	99	107	109	108
30	–	40	24	69	90	101	101	98	107
31	–	52	–	68	–	87	105	–	112
Units	5614	3174	1433	4479	4658	7494	8693	8672	9674
Calls	1650	1375	401	1520	2346	2906	3293	3200	3302
Calls	55	44	43	49	78	94	106	107	107
Y tel	730	413	215	672	699	1125	1305	1302	1452
Y sub	335	299	50	318	503	638	731	714	746

limit the length of each call to an average of one and a half units but made more calls. After about a month, budgeting became the 'key word' as callers started 'planning' their calls. After the first six weeks, an increasing number of callers, who had previously relied on a public telephone for their telecommunications requirements, began using the 'womphakathi scheme'. Most of these callers cited reliability as the main factor for 'switching over'. The fact that the community telephone was cheaper remained a secondary reason. In general, callers were aware of the price differential between public and private telephones.

The 'womphakathi telephone' broke down on 06/04. Seven telephone calls and one visit to the Isipingo Post Office proved fruitless - the eighth call, 17 days after the breakdown, resulted in a positive action by the Telkom's technicians. Loss of revenue to the telephone owner was estimated at R185,00, while the estimated loss of revenue to Telkom was put at R300,00. During the period immediately following the breakdown, usage of the telephone declined to less than 50 percent of the pre-breakdown levels. The feeling of 'typical' became common in the area. The net result was a further loss of revenue for both the owner and Telkom.

Between months April or May and May or June there is a 54 percent increase in telephone usage, a 23 percent increase between May and June, and a 13 percent increase between June and July, which then leveled off. The levels achieved by July should have been reached by May had the telephone not broken down during the March.

Table 2: Record of daily times of calls made at the 'telephone womphakathi' (February - October)

	Month								
Time	Feb %	Mar %	Apr %	May %	Jun %	Jul %	Aug %	Sep %	Oct %
06:01 to 12:00	45,1	31,6	37,7	39,5	41,6	38,9	40,4	41,3	39,7
12:01 to 18:00	41,8	49,1	43,7	41,5	42,6	45,1	42,1	40,3	40,6
18:01 to 21:00	13,1	19,3	18,6	19,0	15,8	16,0	17,5	18,4	19,7
21:01 to 06:00	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

During the first two months, February to March, an even spread of calls was registered throughout the day, starting after 07:00 and tapering off

after 20:00. Half of all the calls were made by 12:30. By the second month a total of 19 percent of the calls were made after 18:00, when the surcharge doubled from 20 cents to 40 cents per call. This shift, up from 13 percent, occurred because more people employed in the formal sector had begun to use the telephone on their return from work.

By the end of the third month, 50 percent of all calls were being made after 14:30. The same patterns as the previous month were noted. From the third month onwards patterns remain unchanged.

Table 3: Record of average cost of calls made at the 'telephone womphakathi' (February - October)

	Month								
Cost of Call Rands	Feb %	Mar %	Apr %	May %	Jun %	Jul %	Aug %	Sep %	Oct %
00,15	53,5	45,9	49,7	47,8	45,3	47,9	43,0	41,6	38,0
00,30	20,5	32,5	22,7	25,5	16,5	16,9	11,7	12,2	11,5
00,45	5,7	6,8	6,2	11,5	8,0	6,5	7,7	7,7	7,7
00,60	5,1	5,7	5,6	4,1	4,7	4,6	5,7	6,0	7,2
00,75	2,4	2,8	3,1	0,3	3,7	4,2	3,0	4,6	7,7
00,90	2,2	2,3	3,2	0,2	3,1	3,5	2,4	3,2	3,0
01,05	1,7	0,8	1,8	1,5	3,0	3,8	3,4	3,8	4,5
01,20	1,7	0,8	1,8	1,0	2,7	3,7	4,0	4,1	3,4
01,35	1,7	0,8	1,8	1,5	2,2	3,3	4,3	4,0	3,8
01,50	1,5	0,4	1,4	1,0	3,1	2,3	4,0	4,5	3,6
01,65 to 01,99	1,0	0,4	0,9	3,1	0,6	2,0	4,1	3,2	3,8
02,00	2,9	0,8	1,8	1,6	7,1	1,9	10,1	5,1	4,3

The most interesting trend to emerge relates to the decline of 15 and 30 cent calls after the second month and the concomitant increase in longer calls. During the second month, one - and two unit - calls accounted for 78,4 percent of all calls.By the ninth month this category accounted for less than half of all the calls, a decline of 63 percent. Clearly, both longer and more long distance calls were being made, the latter being reflected in the following table. Whereas in the second month only 1.2 percent of all calls were cost R1,50, by the ninth month the percentage had risen almost eight fold to 8,3 percent. The important point here is that without the

'womphakathi telephone' such long distance calls could have been not be made. The usage of a private telephone is restricted to three minutes and in most cases to a local call, whilst public telephones are not user friendly in terms of the amount of change required for long distance or multiple unit calls.

Table 4: Record of destination of calls made at the 'telephone womphakathi' (February - October)

Destination of Call	Month Feb %	Mar %	Apr %	May %	Jun %	Jul %	Aug %	Sep %	Oct %
local	86,0	91,8	90,1	76,6	71,7	69,6	58,4	58,2	57,2
Natal/KwaZulu	12,1	5,7	7,6	20,3	20,2	22,6	26,1	25,3	30,7
other RSA	1,9	2,5	2,3	3,1	8,1	7,7	14,4	14,2	10,4
foreign	0,0	0,0	0,0	0,0	0,0	0,1	1,1	2,3	1,7

The most significant statistic to emerge from the above table is the decline of local calls as a percentage of all calls, made by 62 percent, from 91,8 percent in the second month through to 57,2 percent in the ninth month. The concomitant increase of calls to areas both within and outside of Natal/KwaZulu is staggering - 253 and 637 percent respectively.

Table 5: Record of distance travelled to reach the 'telephone womphakathi' (February - October)

Distance Travelled in Meters	Month Feb	Apr	Jul	Oct
00 to 99	0	4	6	11
100 to 199	6	8	9	11
200 to 299	18	19	19	16
300 to 399	15	12	11	12
400 to 499	14	16	15	14
500 to 599	14	15	17	8
600 to 699	10	11	9	11
700 to 799	10	13	10	9
800 to 899	9	2	3	6
900 to 999	3	0	1	1
1 km >	1	0	0	1

The initial group of callers were drawn from an area of less than a 500 meter radius. This however spread to a one kilometer radius before declining to a regular group of users within an 800 meter radius. A negligible number of callers come from more than a kilometer away.

This should be seen as an encouraging sign as it does not limit the scope of competition but increases sales potential. It also reinforces the earlier observation that the 'telephone womphakathi' has a limited market potential in terms of space, which means that competition for users will only occur within a one kilometer radius.

The nearest available alternative telephone for 99,07 percent of the regular users was a public telephone booth located 1,7 kilometers away. This is at an average distance of 2,6 kilometers for most of the regular 'womphakathi' users. The remaining 0,03 percentage of the users had unhindered access to a private telephone, within 300 meters of their home. After three months, however the percentage of womphakathi users who

Table 6: Record of positive and negative comments relating to the 'telephone womphakathi' (February - October)

Type of Comment	Month Feb	Apr	Jul	Oct
Positive comments				
can budget during the call	35	23	47	54
always in order - 24 hourly	20	0	21	22
close to home - save on travel	5	8	15	7
prevents exploitation	10	3	8	1
safe location - 24 hourly	20	7	1	1
good for long distance calls	0	0	0	8
Sub-Total	**90**	**41**	**92**	**93**
Negative comments				
queuing is a problem	5	5	8	7
change causes problems	5	0	0	0
unreliable	0	41	0	0
increased charges	0	13	0	0
Sub-Total	**10**	**59**	**8**	**7**
Total	**100**	**100**	**100**	**100**

had access to another private telephone rose to 7,1 percent, and, after six months to 11,4 percent of the total number of users.

Clearly the 'telephone womphakathi' has the greatest appeal and usage rate amongst those potential telephone users who do not have access to a private telephone. By the ninth month, however, one in every six users had such access but prefered to use the 'telephone womphakathi'. Reasons for usage are documented in the following section.

The ability to budget telephone calls is the most important advantage of the 'telephone womphakathi', while the fact that it remains for the most part in good working order, and is thus reliable, was the second most important positive factor attached to this concept. The success of the system creates its only negative factor - queuing.

CHAPTER 3: THE HOMELAND SURVEY

3.1 Introduction

Having developed and tested the 'telephone womphakathi' in three test sites in Natal, it was decided to test the concept's applicability in the homelands. For this purpose research was carried out in Bophuthatswana, Transkei, KaNgwane and KwaZulu.

3.2 Objective

The objective of the study was to investigate the current public telephone systems used by communities in the areas surveyed and test the attitudes and perceptions of respondents to the 'telephone womphakathi'.

3.3 Methodology and sampling

Individuals and groups of respondents were given a demonstration on how the meter works and, photographs of the Umlazi urban test site and Tugela River rural test site were shown.

Two communities were identified in each of the homelands and 40 interviews were undertaken. Interviews were conducted either in group situations or with individuals. The interviews were open-ended and semi-structured. The method of information collection varied between the different areas.

- Boputhatswana - written, undertaken through an interpreter in English.
- KaNgwane - taped in Zulu and translated to English.
- KwaZulu - taped in Zulu and translated to English.
- Transkei - written and translated from Xhosa to English.

Results were aggregated and are presented as one. Table 7 below illustrates the sample breakdown.

Table 7: Sample size by type of respondent

Homeland	Research Area	Completed Questionnaires
Bophutatswana	*Pilansberg, ThaBanchu*	40
Transkei	*Lusikisiki, Port St. John*	40
KaNgwane	*Nyamazane, Likazi*	40
KwaZulu	*Nquthu, Maphumulo*	40
Total		160

Two days were spent locating the survey areas and three days were spent in each of the areas undertaking the actual interviews. The survey took place between March 23 and April 13, 1991.

3.4 Existing public telephone networks in the homelands

3.4.1 Boputhatswana

In Boputhatswana the majority of settlements, with the exception of Garankuwa, are spatially located within 'close' villages, allowing for an identifiable community of interest. Seven villages were visited, all of which had a small shopping centre located within three kilometers of its periphery. Telephone booths (coin operated) were found at each of these complexes. No public telephones were found elsewhere within the boundaries of the settlements. An average of three to five public telephones serve an average of 200-300 households.

In half of the villages visited the shopping centres were closed after hours, with the obvious result that residents had no access to the public telecommunications network after 18:00. All the villages had armed police or military personnel patrolling, resulting in a lack of vandalism. Nevertheless, of the 29 telephones examined, eight (nearly 25%) were out of order due to faulty lines or 'full' coin boxes.

A small private telecommunications network existed in the better-off areas of these villages. Surcharges averaged R3,00 per call. An advantage in the areas visited was that all exchanges were automated, resulting in a rapid facilitation of telecommunication usage. Generally, the telecommunications network was good but limited in terms of availability.

3.4.2 KaNgwane

The majority of people live in villages or townships, but a rural dispensation also exists. Infrastructure in the four townships visited (Likazi, Nyamazami, Bhokweni and MataZulu) as well as in four villages visited, was very limited and basic.

Telecommunications in the three townships are run by Telkoms in Nelspruit. A number of public telephones were found in the three townships. During the three days spent in the area only two out of seven public telephones were found to be in working order. Four had been vandalized (a common problem) and one was just not working.

A private telecommunications network exists but is very sparse. A brief socio-economic assessment found that affordability is not the issue, but rather a lack of commitment from the authorities in Nelspruit. It was claimed that on average it takes five years to have a telephone installed - this was not verified, but quoted quite fiercely throughout the survey. Very few private telecommunication subscribers allow others to use their telephones because of an inability to adequately levy charges. A system of a surcharge per call was found to exist - R3,00 local and R8,00 to the Witwatersrand for three minutes.

Public telephones outside the exchange in Nelspruit would seem to be the main source of access to telephones for a population of approximately 100 000 people.

3.4.3 KwaZulu

Three-quarters of all households outside Greater Durban and Pietermaritzburg are located in either villages, townships or re-settlement villages, the balance residing in other ribbon settlements (along transport routes) or unstructured communities in the region. All communities are served by one or more supply stores. Over 250 communities have been visited between 1985 and 1991.

Public and private networks are rudimentary and limited to the administrators.

1) Maphumulo village has two public telephones (inside the Post
2) Nquthu has five public telephones outside the Post Office, all in working order, and one public telephone at Charles Johnson Memorial Hospital, which is half a kilometre away and of limited accessibility.
3) Both areas have manual exchanges.

A private network exists - standard KwaZulu charge R3,00 for intra-rural calls and R5,00 for three minute rural-urban calls from KwaZulu to Durban. In six of the eight test centres, an average of 40 percentage of all call booths are out of order. At the post office in Ngoye, outside the University of Zululand, two public telephones have been out of order for nine months. Seven booths exist within the campus, which is predominantly residence - orientated.

A very strong nodal community centre exists within all settlements.

3.4.4 Transkei

At four villages/towns visited, 60 percent of all public telephones had a few months previously been destroyed due to general violence and were not working. All telephones were manualy operated. Most communities were structured into villages with very few being scattered around the countryside or as ribbon type settlements. Each community exhibited very strong nodal points usually around a store which tends to be situated in the centre.

The manual exchange system was universally criticized for being very inefficient. Private telephones are limited and, where they do exist, are based on a party-line system. A common complaint was the abuse of the party-line system, whereby one subscriber provides the wrong information to the exchange resulting in the call being charged to someone else on the same party line.

The most common problems reported for the public telephone system are blocked coin slots and then vandalism. Over 50 percent of all calls made are long distance, to the Witwatersrand, East London, Cape Town and Greater Durban. Nine of the fourteen booths inspected took only a maximum currency of 20c coins and two booths only 10c and 5c coins.

A three minute call from Port St Johns to Durban costs R3,60 and only a 10c coin meter is available.

Of the four homelands visited the communities in the Transkei were the poorest, suggesting that a private telecommunications system is unlikely to be an economically viable prospect.

Private telecommunications subscribers do not like others using their telephones, particularly because of the high number of long distance calls made which cannot be accurately metered. Some shops use egg-timers to measure a three minute call - R1,00 within the district and R5,00 if the call is being made outside the Transkei. Private subscribers and shop owners allow collect calls and assist in receiving calls from a metropolis or pass on messages. This is a very widespread practice. It was reported that the majority of long distance calls are made during November and early December, traditionally just before migrants return.

3.5 Attitudes towards the 'telephone womphakathi' in the homelands

Respondents were shown a demonstration unit and asked for their perceptions. The main points are noted below:

3.5.1 Boputhatswana

A general perception emerged that, because of its location in a private home, the 'telephone womphakathi' would be more reliable than a public telephone in that it would be maintained properly. Such a system would increase the overall accessibility of the telephone network to more people. Furthermore, the proliferation of the 'telephone womphakathi' would, for non-telephone subscribers, reduce the distance travelled to reach a telephone.

The concept of pre-budgeting for the cost of calls was appealing. A further advantage cited was that such a telephone system might facilitate a more competitive commercial environment, in that it would allow ordinary people access to information, and thus help them in their decisions when buying and selling goods or services.

3.5.2 KaNgwane

There was a strong perception that the 'telephone womphakathi' would be more reliable than public telephone booths - because it should always work. The 'telephone womphakathi' was seen as the perfect telephone to use when making long distance calls. Further, the point was raised that pre-budgeting would reduce the anxiety of not knowing what the call would cost after it was made.

A number of respondents added that an established 'telephone womphakathi' system would also facilitate the collection of telephone calls, especially if messages could be left for members of the community.

An important point noted was that the 'telephone womphakathi' would remove the control of the public telephone systems from the 'whites', in Nelspruit, who are currently perceived as being racist in their dealings with the black communities.

It was also argued that such a system would cut out vandalism, thus possibly reducing the level of crime in the area. Finally, given that high unemployment exists in the area, the lack of telephones further inhibits job-seekers and often imposes the necessity of traveling to Nelspruit which costs R5,00 per trip and takes 2 hours. The existence of the 'telephone womphakathi' would reduce both the cost and amount of time it takes to make job queries.

3.5.3 KwaZulu

There was a strong feeling that the 'telephone womphakathi' would be the most reliable telephone system available to the general public. Because of its private ownership it should always be in working order. The proliferation of such a network would reduce the travel costs currently spent on getting to a telephone. Furthermore, it was thought that the 'telephone womphakathi' would undoubtedly undercut the current surcharge costs levied by subscribers with private telephones.

A number of the elderly respondents claimed that vandalism would be reduced because coins would not be left in boxes unguarded at night. Many women argued that a community - based 'telephone womphakathi' would be extremely important during times of conflict and violence. Finally, some respondents felt that a home based public telephone would reduce the amount of time spent standing in a queue.

3.5.4 Transkei

The most important point to emerge was that the 'telephone womphakathi' allows for proper costing of long distance calls. In addition it was often pointed out that if the 'telephone womphakathi' is based in the home of a member of "good standing" in the community, messages can be taken from those who call from far away.

People felt strongly about having a responsible person running the 'telephone womphakathi', otherwise it is likely that it would be be abused and some members of the community would then profit at the expense of others.

It was unanimously agreed that if the introduction of the 'telephone womphakathi' means that the manual exchanges are to be replaced then it must be a good system, as these exchanges are very inefficient. Less important points included the problem of blocked coin boxes at public telephones, which would be overcome. Also mentioned was the fact that the youth will not be able to vandalize this type of public telephone.

3.6 Location of the 'telephone womphakathi'

Respondents were asked where the optimum location of the 'telephone womphakathi' should be. Their replies are listed below:

3.6.1 Bophuthatswana

A positive feeling toward private ownership of the 'telephone womphakathi' emerged, as well as that this system should be affordable to most people who already own a telephone and who would not have to install one. It was also felt that both shopkeepers and garage owners should be encouraged to install the 'telephone womphakathi' at their premises.

3.6.2 KaNgwane

Most respondents felt that the 'telephone womphakathi' should be state-subsidized to a certain degree and that this system be installed in the homes of trustworthy individuals within the community. The state should also install these at most major stores.

3.6.3 KwaZulu

The 'telephone womphakathi' should be made available for people to purchase, so that it can be installed in as many homes as possible. Shopkeepers should be encouraged to install such a system. The state should help with the installation of the 'telephone womphakathi' at community nodal points, such as schools, clinics and major stores, and that people should be nominated by the school, clinic or store to administer the 'telephone womphakathi'.

3.6.4 Transkei

The 'telephone womphakathi' must be available to all who can afford it, especially shopkeepers. However, if such a system is to reach most people then it should be run by community agents who are appointed by the community but paid by the government.

3.7 Perceived problems with the 'telephone womphakathi'

Attitudes towards perceived problems were solicited from respondents. There were not many, and those that were mentioned are noted below:

3.7.1 Bophuthatswana

It was argued that because the 'telephone womphakathi' would be located in private homes or shops, its use would be limited in terms of time. A number of people stated that if the 'telephone womphakathi' is not closely monitored, then the subscribers would be able to dictate the costs of the calls, which might in turn lead to exploitation.

3.7.2 KaNgwane

Skepticism was rife, with many respondents claiming that although the idea is good, such a system is unlikely to ever be installed. Of those that believed in the possibility, some argued that if there were only a few 'telephones womphakathi', this would amount to the same as having a poor public telephone network. They said that many of the problems of the former would replicate themselves, particularly the cost of travel which might not be eliminated if too few phones were installed.

3.7.3 KwaZulu

The major concern voiced by those few respondents who felt that there might be problems with the 'telephone womphakathi' was that if there was no proper control, the owners or agents of the 'womphakathi' would continue to levy exorbitant surcharges.

A couple of respondents (who were keen to purchase the 'telephone womphakathi') stated that potential problems might arise if too many people had such a system, as this would result in competition, which might be detrimental not only for the owners of the 'telephone womphakathi' but also to the users.

3.7.4 Transkei

Most respondents felt that the cost of installing a telephone and buying or renting a 'telephone womphakathi' is likely to be prohibitive for most people. Furthermore it was argued that a system might have to be devised whereby users can be given credit until pension day or when migrant remittances arrive.

3.8 Conclusions

In concluding as to whether the 'telephone womphakathi' is likely to succeed in the four homelands visited, it was important to take into account both the perceptions of the people both of the 'telephone womphakathi' and of the existing network, particularly in terms of the access that the general populace has to it.

The success in Bophuthatswana, with the exception of the Garankuwa region, is likely to be moderate. A fairly 'workable' public network exists, which is accessible in terms of both time and money to most of the population. The patterns of settlement - in village form - allow for this.

The need for a 'telephone womphakathi' network in KaNgwane is great and should in all likelihood succeed. The same should apply for Gazankulu.

The likelihood for success of the 'telephone womphakathi' in KwaZulu should be high, both for the urban and rural areas. A 'usable' public telephone network does not exist and the demand for access to a telephone is substantial.

Although the need for a public telephone system in the Transkei is great, the 'telephone womphakathi' will only succeed if the Transkei Post and Telecommunications improve their service. The success of the 'telephone womphakathi' would be enhanced if such a system was set up through local communities.

CHAPTER 4: CONCLUSIONS

Prior to concluding, it would be important to reiterate the main advantages of the 'telephone womphakathi'. These are:

- An ability to budget while calling.
- A guarantee that the telephone will be in working order.
- Because of its location within the community, a reduction in both cost and time spent on travel.
- Problems relating to incorrect or insufficient monetary change would be reduced significantly.
- The creation of subsidiary community services - message leaving and taking.
- The creation of subsidiary economic activities - cool drink or liquor sales, food postal sending and collecting, petrol service.

4.1 Appropriateness to rest of Southern Africa

Spreading the telecommunications system to cover black rural and urban residential areas (both formal and shantytown) is critical if the legacy of apartheid is to be redressed and social needs as well as development imperatives are to be satisfied in a post-apartheid South Africa. In our opinion this requires the post-apartheid state making a major commitment towards the redistribution of social resources in general, and telephone provision in particular. At least in the short to medium term this requires the shelving of any plans on the part of the South African government to privatize the parastatal organizations currently providing telecommunications.

Providing that the state is willing to make a major commitment to the implementation and maintenance of a public telecommunications network through using a logic that is not simply profit driven, the system we have proposed is relatively cheap, simple, user-friendly, income-generating,

employment-creating, and socially useful. It is applicable in most situations in South Africa where the poor require telephones but are unable to afford their own. It can therefore be extended to the rural areas as well as the rapidly growing shanty areas in the metropolitan areas. Indeed it might also be applicable to large areas of the rest of our continent where similar conditions prevail.

Implementing our 'telephone womphakathi' agency system would effectively meet the immediate needs of those sections of the population that are currently most disadvantaged as a consequence of the legacy of apartheid. At the same time it would serve to redistribute socially productive resources from white to black, from urban to rural, and, within the metropoles, from the urban core to the urbanizing marginals - in short from the developed to the underdeveloped.

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