

**A STRATEGIC ANALYSIS OF NOKIA DIVERSIFYING INTO THE
PROVISION OF COMMUNITY PHONE SERVICES**

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ABSTRACT

Nokia predicts that by 2008, 80% of mobile phone sales will come from New-Growth Markets.

New-Growth Markets consist of high-income consumers capable of purchasing expensive handsets, and low-income consumers that have thus far been unable to afford cellular phones.

This paper investigates the feasibility of Nokia creating Community Phone Services. A prospective business model involves rollout of services by Franchisees, following guidelines from the firm.

This paper finds that the business potential in this market is massive, but challenging due to the different socio-economic classes in the region. This paper concludes that by focusing on a dual-strategy, where Nokia continues to create products for the high-income consumer while diversifying into the Community Phone Arena, it will be able to reap benefits from consumers who fall on both sides of the economic spectrum.

Following this strategy will allow Nokia to defend its position as the world leader in the industry.

DEDICATION

I would like to dedicate this to my children, Makena and Munene. Thank you for all your patience and sacrifice during this period. I would also like to thank my husband Ken for all his support.

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1. OVERVIEW

1.1 Introduction

In the mid to late 1990s, mobile phones were virtually unheard of in most of Africa. The concept of having cell phones ringing in the pockets of farmers as they harvested crops and herded livestock in their farms was unfathomable. However, by the end of 2001 the International Telecommunications Union (ITU) estimated that 28 African countries representing over half the continent's countries, had more users of cellular phones than of landline phones. Farmers are using cellular handsets to find buyers and to negotiate prices for their produce and livestock, parents are using them to contact their children who have migrated to the city, and small-scale entrepreneurs are utilizing them to find potential customers. Mobile phone usage has increased at an exponential rate, defying earlier predictions that the technology was too expensive to be viable in Africa (Waldick). Demand for telephone services in rural areas has increased despite little to no marketing efforts. This increase in demand is ascribed largely to the fact that mobile phones offer villagers a tremendous convenience compared to previous eras when they would have to travel significant distances to the city to access fixed line telephones.

Based on research performed by the International Research and Development Center, it has been found that the rise of mobile phone usage in a continent that possesses a severely underdeveloped fixed line infrastructure should cause firms to rethink their strategies for providing universal access to phone service (Waldick).

One of the main issues in Africa has been a lack of understanding by firms that the African context differs considerably from that of Europe or America. Prevailing models describing how to regulate telecommunications are based on the theories and

experiences of developed economies, and these models have been developed in settings where a large proportion of the population already has quick and easy access to fixed-line infrastructure (Waldick.L)

In Africa, a large proportion of the population is unable to afford the monthly fees associated with cellular phone contracts. The concept of using prepaid scratch cards to purchase a specific amount of airtime has opened new avenues for these consumers. Villagers have been pooling their scarce resources to purchase one cellular phone. They then purchase prepaid cards and control their phone usage – they stop making calls when the money runs out, and use the phone only to receive incoming calls, since it is free to receive phone calls in the vast majority of African mobile networks.

Community Phone Services are entrepreneurial ventures targeted towards providing telecommunication services to consumers living in low-income areas, who would otherwise be unable to afford the cost of a handset or airtime. The service is provided in areas where landline infrastructure is lacking and it leverages the extensive reach of network coverage provided by cellular infrastructure. The business model is structured such that phone-shop franchises are owned and operated by local entrepreneurs living in the low-income areas. Prospective owners can start a franchise to operate five cellular lines in a pre-approved location. These franchises operate from kiosks and offer phone services to the surrounding community, at a fraction of the cost of regular phone services provided by mainstream network operators. The phone shops operate as independent businesses, but the products and services they offer are simple and consistent (Reck, J and Wood, Brad).

1.2 Aim

Network operators normally provide community phone services. These firms have been able to build their brands with low-income consumers. Network operators have structured their programs in an entrepreneurial manner; all shops are independently owned and operated as franchises. This model has attracted over 3 million consumers who in Vodacom South Africa's estimate, make close to 100 million calls a month. Vodacom concedes that on its own it would be an enormous challenge to operate and manage all these phone shops (Reck, J and Wood, Brad).

The purpose of this project is to present this idea as a business opportunity for Nokia. The proposal is that Nokia create franchises that in turn provide this service directly to consumers. Nokia would do this by providing Nokia-branded kiosks and Nokia handsets to pre-selected entrepreneurs. It would purchase airtime from the local network providers and resell to franchisees. In addition, each phone shop would be required to stock Nokia Entry level handsets for sale to consumers, and thus act as a distributor in areas where it would otherwise not be feasible for Nokia to have distribution outlets.

1.3 Scope

This study will be limited to rural areas in Kenya, although for comparison purposes, data from other developing economies, such as South Africa, is utilized.

1.4 Importance

Nokia is a world leader in mobile communications, driving the growth and sustainability of the broader mobility industry. The firm clearly recognizes that Africa is one of the fastest growing markets in mobile communications and is highly

committed to participating in that growth. Nokia's current strategic plans in Africa have been propelled by the firms' belief that the key to success in new-growth markets is to find innovative ways that can reduce the overall cost of mobile phone ownership for consumers (Reck, J and Wood, Brad). Community phones will not only offer mobile phone services at reduced costs, but will also introduce lower income consumers to these services and the brand. In the long run as these consumers climb the economic ladder or move to more urban areas, it is likely that they will exhibit brand loyalty and as they make their decisions regarding the purchase of entry level phones, those phones will likely be Nokia products.

Three quarters of the world's population earn less than \$2 dollars a day; they are referred to as the aspirational poor. These potential consumers could contribute an additional \$13 trillion in annual sales to the global economy, if firms would drill deep enough to reach them. If firms create opportunities for this large segment to consume their goods, they will be able to harness the world's largest marketplace (Johnson). By developing products and services that enable the world's underprivileged to benefit from and gradually develop some economic muscle, Nokia will be able to increase its market share. It is critical that Nokia pushes into these previously unexplored markets. This is especially the case since current statistics suggest that the majority of people who can afford cell phones already own them. Global organisations such as Nokia must now find new avenues to increase their reach.

Selling to the poor has been found to be a uniquely powerful way to achieve breakthroughs in products and management practices. However, in order to successfully tap into this market, it is imperative that firms employ innovative methods. This is mainly because the rules of engagement are completely different

from what these firms may be used to since they have mostly dealt with a customer base that is predominantly European or American (Prahalad). Nokia has historically focused on the sale of medium to high-priced products and since this market is saturated, the firm must begin to find innovative ways to compete in bottom-of-the-pyramid markets. Rural Africa offers Nokia an opportunity to not only find new sources of value, but also do some social good.

Ignoring these markets in the long- run could prove to be a catastrophic error. According to Prahalad, there are growth opportunities that span from 50 to 100% if firms are able to find the elusive “sweet spot” of function, price, distribution and volume. It is not sufficient for firms like Nokia to continue to take up-market devices, reduce their feature set, and then sell these to those at the bottom of the economic pyramid. Instead, the firm must completely re-engineer its products and services to reflect the very different economies in countries in Rural Africa. The Community phone is one such way that the firm can tap into this market.

2. COMPETITIVE ENVIRONMENT

2.1 Overview of Kenya

Kenya is located in Eastern Africa. The country is bisected by the equator and longitude 38 degrees east. It shares its western border with Uganda, and borders Tanzania to the South West, and the Indian Ocean to the South East. Approximately two thirds of the country is considered habitable, and most of this land lies in the southwestern areas of the country. Administratively, Kenya is divided into eight provinces: Western, Nyanza, Rift Valley, Central, Eastern, Coast, North Eastern, and Nairobi. Kenya's total land area is the average for a country in Sub-Saharan Africa—582,646 square kilometers.

2.1.1 Infrastructure

Approximately 14% of the country's road network is fully developed. The rest of the Kenyan road network is gravel, which makes communication during the rainy seasons a challenge for the people living in these areas.

2.1.2 Demographics

Based on the 1999 National Census, Kenya has a population of approximately 29 million people. The Rift Valley Province has the highest proportion of this population (6,987,036), followed by Eastern (4,631,779) and Nyanza (4,392,196) provinces. North Eastern has the smallest population size of less than one million. Over 18.6 million of the country's population lives in rural areas. The population density of the country is 38.7 people per square kilometer (CCK). Kenya's low population density provinces (Coast, North Eastern, Eastern, and the northern Rift Valley) form more than half of the country's land area. These provinces offer significantly more

challenges for the existing Network Operators since the financial benefits of deploying Network Infrastructure to these regions does not justify the prohibitive costs. Majority of the inhabitants in these areas cannot afford to purchase a handset. However, these inhabitants require some means of communication with others outside their areas. Network operators must find creative means of tapping into the potential revenues from the consumers in these areas.

Household incomes are highest on average in Nairobi, followed by the Rift Valley, North Eastern, Coast, and Central provinces. Provinces with the least average household income are Eastern, Nyanza, and Western. Nonagricultural sources tend to earn households more money than any agriculture-based activities. Urban areas (and Nairobi in particular) derive most of their income from non-agricultural sources.

Table 1: Mean monthly household income by provinces, from different sources.

Units = USD	Total Non-Agricultural Income		Total Agricultural Income		Total Average Household Income
	Wages/Profits	Other Non-Agricultural Income	Agricultural Income	Crop Income	
Province					
Nairobi	193.6714286	39.9285714	6.257142857	2.4	239.842857
Western	51.45714286	16.5428571	25.6	15.8142857	109.414286
Nyanza	2920	20.8142857	24.58571429	9.31428571	96.4285714
Rift Valley	4863	18.0285714	55.6	31.7857143	174.871429
Central	4489	22.4428571	22.91428571	22.9	132.385714
Eastern	3046	16.2285714	25.88571429	8.24285714	93.8857143
Coast	6034	23.2142857	14.68571429	17.2142857	141.328571
North Eastern	3283	27.5142857	66.82857143	0.62857143	141.871429
Rural	3307	17.8571429	36.2	20.2571429	121.542857
Urban	11266	35.0857143	6.6	1.57142857	204.214286
National Average	4941	21.3857143	30.11428571	16.4142857	138.514286

Source: CCK

It has been established that on average, most Kenyans spend their income on consumables. Investing in communication devices such as mobile phones is very frequently determined by how much money is available after basic needs are taken into consideration.

Like most other African countries, Kenya has a very high proportion of young people. Overall, the population aged below 20 years accounts for 56% of the total. This predominantly young population has implications for firms that need to attract new consumers to their products.

Table 2: Age distribution in Kenya

Age Group	Number	Percentage
0-4	3419474	13.5
5-9	3867484	15.3
10-14	4608601	18.3
15-19	2243458	8.9
20-24	2142939	8.5
25-29	1718483	6.8
30-34	1446219	5.7
35-39	1402440	5.6
40-44	1051237	4.2
45-49	935837	3.7
50-54	660773	2.6
55-59	503508	2
60-64	385916	1.5
65+	857855	3.4
Total	25244223	100

Source CCK

2.1.3 Economic Performance

Kenya has not performed well in the past two decades. Some key performance statistics are:

- GDP growth was negative 0.2% in 2000, 1.2% in 2001 and 1.1% in 2002 (Economic Survey, 2002 and 2003).

- GDP per capita (2000) was US\$ 360 (World Telecommunication Development Report 2002).
- Agriculture and manufacturing sectors, which contribute one third of the GDP, grew by 1.2% and 0.8%, respectively, in 2001 and 0.7% and 1.2% respectively, in 2002.
- Apart from manufacturing, building and construction, trade, and restaurants and hotels, all other sectors recorded lower real GDP growth rates in 2002 than in 2001 (Economic Survey, 2003)
- The percentage of the population living below the national poverty line has increased from 48% in 1990 to 56% in 2001 (Economic Recovery Strategy for Wealth and Employment Creation, 2003-2007)

Communications is currently one of the single most important sub-sectors in the countries economy. The transport, storage and communications sector registered the highest growth in 2001 (Economic Survey 2002). This high growth rate has been attributed mostly to the fast-growing mobile communications sector.

2.2 Market Place

In Kenya, Telkom Kenya is the sole provider of landline services. It manages and operates the infrastructure over which Kenya's various Internet service providers operate. There are an approximated 310,000 landlines in use in this country, compared to a population of 30 million people. There has been no attempt on the part of Telkom Kenya to modernise or expand its services. On the other hand, the country currently has an estimated 5 million mobile phone subscribers (Wikipedia).

The landline infrastructure is also severely underdeveloped outside of the major cities and people living in rural areas often need to travel extensively to access public pay phones. This is not only inconveniencing, but also costly.

With the introduction of Cellular services into the region, many people have been keen to take up their use. However, the cost of purchasing and servicing a handset is often beyond the reach of the majority. This has resulted in the creation of a new type of entrepreneur, specifically in disadvantaged urban communities, and rural areas that had limited access to telephone services. The few individuals who were able to afford the cost of a handset began to charge variable rates to others for the use of their phones. Their customers were typically paying an order of magnitude more than the network operator actually charged for phone calls, but they took up this service anyway since the pre-paid model allowed them to budget for a single call, and they did not need to actually purchase a handset in order to have access to telecommunication services.

A large proportion of the population living in rural Kenya is considered to be labour exporting. This implies that a significant number of people from rural areas move to the urban areas in search of work. These migrant workers then send money back to their homes using services provided by mobile phone operators. The village phone is an important tool used to facilitate the transmission of these remittances.

Using cellular phones makes business sense even for the smallest scale enterprises. It has been reported in neighbouring Tanzania that farmers routinely accepted prices offered to them. Farmers mainly focused on selling their produce in the markets closest to their farms. Mobile communication has radically changed this. With a cell phone, these farmers are now able to check prices at other nearby markets and thus

negotiate better deals. Similarly, fishermen off the Tanzanian coast have been able to select the best port to sell their catch while still at sea (Red Herring).

The fast uptake of mobile services in these countries is a testament to the fact that there is a large need, as well as an unfulfilled demand, for these services. Telephones are not perceived to be luxuries any more in these rural areas but instead as important tools that can facilitate the growth and development of small-scale enterprises and increase the productivity of villagers.

Marketing to the rural poor and urban underprivileged will be a challenge for Nokia, and is not as simple as finding and offering the lowest price. Firms must understand not only what this segment can afford but also what they want and can use (Johnson).

2.3 Competitor Analysis

There are two main forms of competition in this industry: personal shared mobile phones, where ownership and/or use is by more than one person; and public phone kiosks, which use standard infrastructure and prepaid options.

Competitor 1: Safaricom Ltd (Community Phone Division)

Safaricom offers phone services for consumers who cannot afford to own an individual handset, or for whom the regular tariffs are unaffordable. Safaricom offers a cheap and reliable alternative that provides users the ability to keep in touch with family and business associates. Unlike Individual Phone owners who sell airtime from their personal handsets, Safaricom has a consistent way of charging for calls, and offers lower per minute rates (USD \$0.50 per minute)

In 2002, Safaricom reported a net profit of USD 10 million on revenues of USD 122 Million. In the year ended 2004, the firm made a net profit of USD 46 million on

revenues of USD 252 million. The firm is currently the most profitable business in Kenya and its revenues and net profits have been growing at a rate of 27 percent and 66 per cent respectfully (Safaricom).

Safaricom's key advantage relative to Nokia is that it already offers Community Phone Shop services, albeit on a very small scale and mostly focused in urban low-income areas. However, the firm has from the beginning focused on medium to high-income consumers. It has done little to secure market share amongst the majority of the population who are low-income earners and rural dwellers. The firm has focused on building its network base stations mainly in urban areas.

Safaricom is 40% owned by Telkom Kenya, the government owned landline provider. Since the government is a major shareholder in the firm, it can be assumed that any other firm that tries to compete with it may face some challenges.

2.3.1 Competitor 2: Telkom Kenya Payphone Services

Telkom Kenya Payphone is the National fixed line operator in Kenya. The number of payphones serviced by Telkom Kenya has remained at less than 10,000. The firm was mandated by the government, as part of its licensing agreement, to increase the number of payphones countrywide by 5000 by the year 2004. However, it was not able to meet its obligations. The firm was thus liable for a fine and the Communication Commission of Kenya fined the firm for its inability to meet the first three-year rollout obligations. The fine of Ksh 58 Mil (USD 0.77 Mil) is far less than it would cost the firm to rollout the additional lines and as a result, the firm has very little incentive to honour its obligations.

Table 3: TKL's Rollout Obligations for New Lines and Payphones

Year No	Actual Year	New Urban Lines	New Rural Lines	Total New Lines	New Payphones
1	2000	20000	5000	25000	2500
2	2001	55000	5000	60000	5000
3	2002	70000	5000	75000	5000
4	2003	70000	5000	75000	5000
5	2004	70000	5000	75000	5000
	Total	285000	25000	310000	22500

Source CCK

Telkom Kenya Payphone has created a new product called Mzalendo, that it hopes will compete directly with Community Phone services provided by operators. In addition, the firm has started rolling out tele-centres as a strategy to enable many people to share the cost of ownership of telephone facilities. The firm has focused on marketing this product to established, and well-to-do entrepreneurs. Given the high cost of the tele-centres, between KShs. 300,000 to 800,000 (USD \$4000 to \$10,700), this type of model is more feasible in urban rather than rural areas.

Telkom Kenya Payphone is the oldest of all telecommunication firms in the country and thus has more experience than other newer firms in rolling out services countrywide. However, Telkom Kenya Payphone is run by the government and is plagued by corruption and in-efficiency.

2.3.2 Competitor 3:

Individual phone owners offer services to rural dwellers for whom phone communication is necessary but who cannot afford to own an individual handset, or for whom the regular tariffs are unaffordable. They offer an easily accessible way of making and receiving phone calls, at any time of the day since they do not necessarily operate on regular 9-to-5 schedules.

The actual financial performance of individual phone owners who resell airtime from their personal phones varies greatly depending on where they choose to run their

businesses. The selling price that they charge per unit of airtime is always higher than the price that would be charged at a Community Phone shop since they simply resell airtime pre-purchased on their personal handsets, and do not get any wholesale discounts. However, they are able to do this in very remote areas where it may not be feasible for a large firm to set up a community phone shop since the population density would not be high enough to guarantee a reasonable return on investment. Most of the entrepreneurs that were approached would not divulge specifics of how much profit they made per week, but it was observed that they were making enough to sustain themselves and their families.

These entrepreneurs are mobile and can move their individual handsets to any location, as demand shifts from different geographical areas within their villages or communities. There is also very low initial capital outlay for this type of entrepreneur – all that is required is the purchase of one basic handset, as opposed to Community Phone Shop owners where there is usually a requirement that the franchisee lease at least five lines.

However, these entrepreneurs have difficulty tracking the cost of calls made by others. They have a risk of damage and loss from other people using their phones and have problems identifying who is calling for whom. For users, if they are depending on an individual phone owner to receive calls on their behalf, then the delivery time for messages can be days or weeks. There are also privacy issues for calls and messages both for the owners and users.

2.4 Supply Analysis

A large proportion of the country is severely under-served, when it comes to the provision of telecommunication products and services.

2.4.1 Landline Services

Fixed lines in the country have for the most part, been rolled out mainly in urban areas, as shown in the table below. The capital city Nairobi has 56% of all landline subscribers, and the remaining 44% are distributed Coast (13%), Rift Valley (12%), Western (2%), and Nyanza (4%), Eastern (5%), North Eastern (1%) and Central (7%) (CCK Annual Report 2003/2004)

Table 4: Summary of Fixed Telephone Network performance

Year	Exchange Capacity	Subscriber Connections	Waiters	Payphones	Lines in Rural Areas	% of lines in the rural areas
1999/2000	420370	296400	>100000	9000	14779	5.00%
2000/2001	446302	321482	111866	9135	17486	5.40%
2001/2002	490000	328116	134290	9264	18238	5.60%
2002/2003	508230	328358	130829	9964	19288	5.90%
2003/2004	531442	299255	117298	9798	NA	NA

Source CCK

As shown in the table above, there are currently 100,000 people waiting for a landline connection. This number has remained fairly constant over the periods analysed. It is likely that the unmet demand is far higher than this, and that majority of potential customers do not bother getting on the waitlists given their knowledge of Telkom Kenya's poor delivery of services.

The number of public payphones is reported to have increased from an initial 588 in 1981 to approximately 10,000 by 2004. This number represents less than 3% of the total number of landlines in the country, and means that the rural poor who cannot

afford individual landlines are currently being significantly underserved by these payphones. The distribution of payphones in rural areas compared to urban areas is greatly skewed, with Nairobi having a disproportionate share of the total.

2.4.2 Mobile Services

Mobile Networks were first introduced into the country in 1992. The Cellular market is currently run by a duopoly of firms:

- Safaricom Ltd, a joint venture between Telkom Kenya Ltd and Vodafone UK
- Celtel Ltd (Original name Kencell), owned by MTC Kuwait

Table 5: Summary of Mobile Telephone Network Performance

Year	Safaricom capacity	Kencell capacity	Total Capacity	Safaricom Connections	Kencell Connections	Total Connections
1999/2000	NA	NA	24000	54000	60000	23757
2000/2001	NA	NA	640000	325235	259896	340731
2001/2002	NA	NA	1220000	728163	458959	994128
2002/2003	1500000	NA	NA	1000000	590785	1590785
2003/2004	2935000	1000000	3935000	1627378	918779	2546157

Source: CCK

The two firms have together been able to provide connectivity to large areas of the country. Their combined networks surpassed Telkom Kenya's fixed network in 2001 and has since that point exhibited phenomenal growth. By the end of 2004 the mobile network was seven times the size of the fixed network (Source CCK).

As can be seen from the above figures, both network operators have significant unused capacity in their networks. The total capacity at the end of 2004 was almost 4 million connections, and only 2.5 million connections were in use. Nokia has a tremendous opportunity here to make a business case to these firms regarding the provision of a service that utilizes this extra capacity.

2.5 Demand Analysis

Kenya is divided into eight administrative provinces, and within these provinces are 72 districts. The districts are divided into divisions, and each division further subdivided into locations and sub-locations.

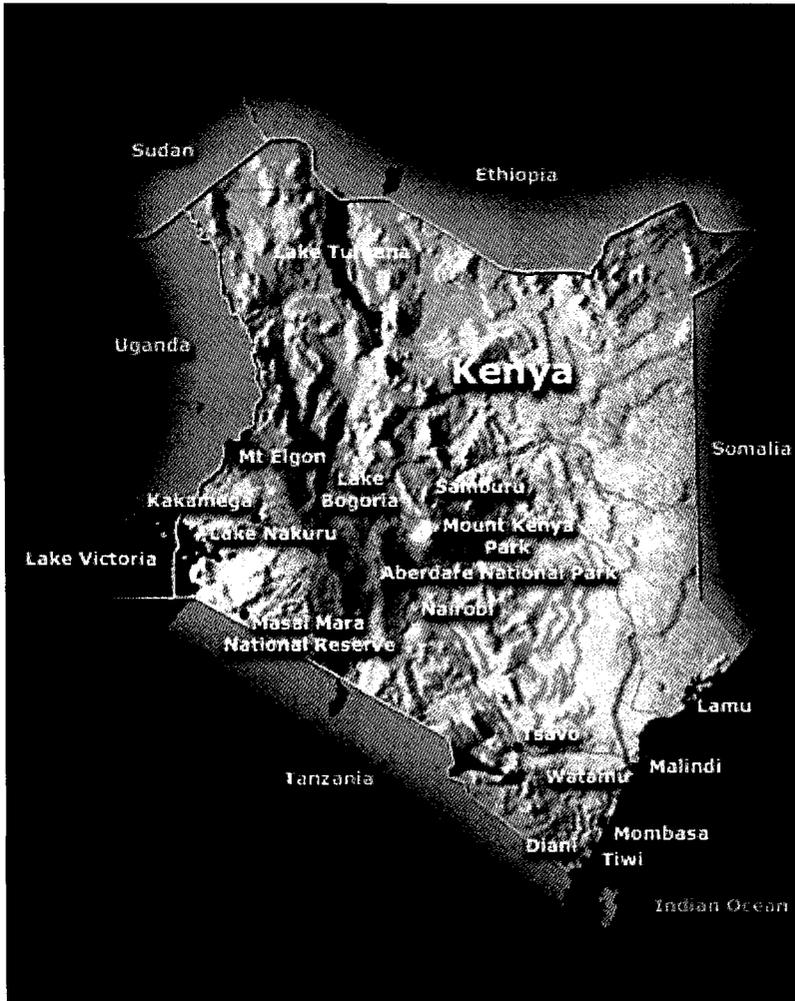


Figure 1 : Kenya

Rural areas are the key target areas for the proposed service. These are areas with populations of 2000 people or less. These rural areas fall within districts, but fall outside the boundaries of areas designated as cities, municipalities, towns and urban centers.

2.5.1 Segment Considerations

2.5.1.1 Rural Population

Majority of the population in Kenya resides in rural communities. Out of the countries population of 30 million, an estimated 60% of these people live in rural areas (UN/ISDR). These communities are severely underserved in terms of telecommunication facilities, and would form the biggest proportion of the target market for this new service. It is estimated that only 14,285 of the country's 293,364 fixed lines are rural connections, based on the Communications Commission of Kenya's (CCK) annual report of 2005/2006. The current Network operators are estimated to have a combined total of six million subscribers countrywide. Of the 18 million people living in rural areas, it is estimated that at least 30% of them would be interested in utilizing Community Phone Services if these services were made available to them at affordable prices and convenient locations.

2.5.1.2 Urban Population (Townships, Slums and other less economically developed areas)

Kenya has four major cities – Nairobi, which is the capital, Mombasa, Kisumu and Eldoret. There is a very clear demarcation between the upper and lower classes in these cities. Nairobi houses Kibera, which is the largest slum in Africa, with a population of over 1 million people. It is located to the south of Nairobi City and is approximately 600 acres large (Wikipedia). A vast majority of the population living in slums such as these eke out a living trading in the open-air markets around the city. They earn USD \$30 a month on average, and typically have extended family living in the rural areas of the country. The people in this segment cannot afford handsets nor are they in a suitable financial situation to purchase airtime from traditional Network operators. However, they still have a need to communicate with family, as well as with

colleagues in the city and they are ideal candidates for purchasing the services provided by Community Phones. The phones provide them with an opportunity to gather real time data regarding market conditions in the city, which allows them to make decisions on which market to go to each day to sell their goods to get the best prices for commodities.

The people in these communities have traditionally relied on phone sharing to meet their communication needs. When surveyed regarding the average amount they spent on 1-minute telephone conversations, it was found that they typically paid at least 50% more than the network operator charges – the reasons for this being that they depended on individuals who owned handsets and re-sold their airtime. These individuals were thus spending more money per call and making fewer calls than their more financially stable counterparts in the same city. The majority of those surveyed stated that they would probably make more calls if the rate per minute became more affordable. On average, it was found that these township dwellers spent the equivalent of \$12 USD a month on phone calls. It is not unreasonable to estimate that at least 50% of this population would require and utilise the services proposed in this analysis. The proposed pricing model would put the Incumbent operators' services at a higher price point, which would mean that most people would probably prefer to use Nokia's services. This segment is currently not part of the target market for the Incumbent operators' services.

2.6 Analysis of Challenges and Opportunities

2.6.1 Financing

Financing is quite difficult in most of Rural Kenya. Many potential entrepreneurs do not possess sufficient collateral that they can use to secure loans from banks. A good

number of these entrepreneurs own ancestral land, which is land in remote areas that they have inherited from previous generations, and which is expected to be passed on to their children. This land has no real economic value because it cannot be sold to third parties, and therefore cannot be used as collateral. Finding prospective owners who are willing or able to come up with the initial approximated start-up investment cost of USD \$3250 may be a challenge initially. It is thus very likely that the initial 800 owners of the first franchises will not necessarily reside in the rural areas themselves, but will likely be more established people who come from the larger cities in the country. These individuals are more likely to own property that is usable as collateral for obtaining initial financing to cover start-up costs.

2.6.2 Selection of franchisees

The selection process for potential franchisees should be reasonably rigorous. Franchisees must be able to produce recent bank statements proving financial security and stability. Considering that the initial investment costs are an estimated USD \$3250, prospective owners should be expected to prove that they possess at least double this amount of capital. Unfortunately, Kenya does not possess a comprehensive credit verification system, and as a result, it is necessary for the firm to depend purely on bank statements to verify the financial stability of entrepreneurs. The firm must also take into consideration the previous business experience of the potential franchisee.

2.6.3 Monitoring of franchisees

Franchisees would be expected to sell a minimum number of handsets and airtime every month. In addition, they will not be permitted to use the Community Phone Container to sell any other commodities. Actively monitoring all the franchisees will be a time consuming and labour intensive activity for Nokia, so the firm should

instead implement spot/random checks. Coca Cola Africa has instituted similar spot checks on storeowners that it provides with branded Coca Cola refrigerators, and this has been an effective deterrent against entrepreneurs who want to use the equipment to store food and beverages that are not provided by Coca Cola. It is assumed that the same principle can be applied to Nokia's franchisees.

2.6.4 Governmental issues

The Kenyan government has been hesitant to issue licences to additional Network operators, and there currently is no legislation concerning Mobile Virtual Network Operators. Nokia would therefore have to negotiate directly with Safaricom Ltd regarding access to its networks. This will be a challenge since this new service would directly compete with the services that Safaricom Ltd. currently provides. Nokia must present a clear business case to Safaricom detailing the benefits that this will provide for that firm. These benefits would include the fact Nokia's new business model would enable Safaricom to sell its airtime to consumers who were previously out of reach since they were unable to afford the existing tariffs' and handsets.

2.6.5 Power of service providers

There are currently two main Network Operators in Kenya, namely Safaricom Ltd and Celtel Ltd. Safaricom currently has the larger market share, and both firms offer Community Phone services albeit on a very small scale. Telkom Kenya, the government-run landline infrastructure provider, partially owns Safaricom Ltd. The success of the business model proposed in this report depends largely on these service providers since Nokia would need to purchase infrastructure and airtime from these operators. Nokia will not be able to offer this new service in areas where these network operators have not already built network base stations. However, it is assumed that since this business model operates in a way such that it increases sales

for the incumbent operator, and reaches consumers whom they otherwise would not be reaching, the firms will be likely to co-operate with Nokia and facilitate its new operations. The firm should make it clear that its decision to forward integrate would only occur when existing service providers are unable to reach the hardest to reach customers, and thus these integration moves should not be seen as threatening to the service providers.

3. FINANCIAL ANALYSIS

3.1 Cost Considerations

3.1.1 New Business Unit setup costs (Finland)

The firm would need to incur some costs setting up this new Business Unit in Finland. This new division should fall under the existing strategic business unit that focuses on the creation of entry-level handsets. This approach will help minimize costs. Using this strategy, the firm will need to have an estimated five extra staff. These staff members will be senior and responsible for managing and overseeing the overall strategy for this new venture. The average salaries would be in the range of USD \$90,000 per annum per person, so the estimated cost of this setup would be USD \$450,000 per year. The five new staff members would be housed in existing office space and would utilize existing administrative and legal personnel to assist them. As revenue begins to grow and administrative and legal tasks increase, dedicated administrative staff would be hired.

3.1.2 Staffing Costs (local)

The company would need to hire at least 23 fulltime permanent staff in its Nairobi offices. The break down of these new hires would be 1 regional director, 16 sales

managers, and 6 regional managers. Taking into consideration the cost of living in Kenya, the average salaries would be in the range of \$50,000 USD per annum, per person, so the total estimated cost of staffing would be USD \$1,150,000 per annum. In addition to salaries, the firm would also need to consider the cost of paying benefits for its employees. These benefits include medical, dental cover for the employee and his family. The approximate cost of these benefits would be 15% of base salary. This would increase staffing costs by an additional \$172,500 USD per annum. The firm would also need to rent out office space to house this staff. The estimated cost of this rent is USD \$2,000 a month, working out to USD \$24,000 per annum.

3.1.3 Marketing Costs

The firm will need to cover all marketing and advertising costs for at least the first two years after the launch of this new strategy. After the initial two years, franchise owners will be required to pay a monthly fee that will go into a special marketing fund that would cover marketing costs for the region.

Marketing this new service will be expensive because the target market for it is located in rural Africa, where there is no easy access to conventional advertising channels such as television and regional daily newspapers. Considering that the target market for this service would probably only understand a nominal amount of the mainstream languages used in radio or newspaper advertisements it will be necessary for the firm to focus on advertising in local dialects. The firm will need to utilize newspaper inserts, billboards in localized languages, and radio campaigns and promotions.

Taking the above into consideration, the firm would need to spend approximately USD \$ 5,000 per month to cover these costs. This figure has been derived by analysing

the current rates charged by mainstream advertising channels. On average, advertising on radio costs approximately 12500 USD per month, for 30 second commercials running once every two hours. The assumption is that rural radio stations would charge at least 40% less. The basis of this assumption is that the cost of living in rural areas is at least this much lower.

3.1.4 Setup costs

A range of setup costs should be taking into consideration when ramping up this new business initiative. The firm will need to set aside \$200,000 USD in the first year, to be used for training the new franchise owners on how to run the business, operate equipment, and represent the Nokia brand. In addition, the firm will responsible for carrying the costs of the containers that will be used as kiosks. These kiosks will remain the property of Nokia, and as such would have to be financed purely by the firm. Considering the initial targeted number of franchisees is 800, and the approximate cost purchasing the shipping containers and modifying them is \$4000, the total cost in the first year would be \$3,200,000 USD.

3.2 Revenue Streams

The business model proposed would result in two main revenue streams for Nokia.

These are discussed below.

3.2.1 Handset sales

Each franchise would be required to carry a minimum stock level of Nokia entry-level handsets, as well as phone accessories such as basic headsets, extra batteries and chargers. The franchisee will be required to sell a minimum of 100 handsets every month.

The margin that the firm would make on each of these handsets is 40%. Considering that on average the firm could expect to sell these entry-level handsets to the franchisee at USD \$30, it would mean that the firm makes USD \$1200 in profit per month from each franchise. The initial targeted number of franchises in Kenya at launch is 800, which would yield USD \$ 11,520,000 per year in profits for the firm, from revenues of USD \$ 28,800,000 per year.

3.2.2 Network Airtime sales

The main revenue stream from this business model will be the sale of airtime. The firm will sell airtime that it has purchased at wholesale prices (\$0.20 USD per unit) from the incumbent network operator to the franchisees at 150% of cost (\$0.30 USD per unit). Franchisees will be required to purchase a minimum amount of 10,000 units of airtime from Nokia every month. An analysis of Vodacom South Africa franchisee sales shows that owners are able to sell 100 hours of air-time per month per phone line from prime locations. This represents 6000 units of airtime on a single line, with each kiosk having at least 3 or 4 lines, a total of between 18,000 and 24,000 units per month.

Each unit of airtime will be sold to franchisees at USD \$0.30 per minute, giving the Nokia revenues of USD \$3000 per month, per franchise, or USD \$2,400,000 per month in total revenues for all 800 franchisees.

3.3 Pricing Strategy

The Communications Commission of Kenya does not regulate the prices that mobile operators can charge to customers, but instead assumes that competitive forces align prices accordingly. However, mobile operators are required to present their prices to the Commission prior to implementation.

Safaricom Ltd currently offers its customers a variety of different pricing packages, depending on whether they are prepaid customers, or contract customers. Over 90% of its customers are on pre-paid packages, meaning that they purchase air-time from retailers on scratch cards in advance. The scratch cards come in denominations of 50Ksh (USD 0.67), 100Ksh (USD 0.75), 300Ksh (USD 4) or 500Ksh (USD 6.67).

The segment that is targeted as potential consumers of this new service would all previously have been either on pre-paid packages or had no cellular access, since they are low-income earners without the ability to secure credit from any firm, and would not be able to sign post-paid contracts.

Safaricom charges customers USD 0.67 per minute on average, for out going calls, depending on whether the calls terminated on a landline or competitor network. All incoming calls are free. Based on this rate, it is likely that the rates that franchisees will be charging end-customers (USD 0.40) will be considered very competitive, and act as an incentive for consumers to opt for this service as opposed to traditional scratch cards. This pricing strategy will possibly attract not only those consumers who do not already own handsets, but also those who own handsets but are from a low-income group and thus rely on the handsets only for receiving calls, since neither of the network operators charge customers for incoming calls.

3.4 Handset sales

It has been assumed that the franchisees should each be able to sell at least 100 handsets a month, a reasonable estimate for monthly sales, when one takes into consideration the population density in the targeted rural areas – 38.7 people per square kilometre and each franchise providing coverage of an average area of 10,000 square kilometres (387000 people).

This new service must aggressively focus on reaping the fortune at the bottom of the pyramid – not everyone at the bottom will be able to afford the services but the idea is that once they start to be exposed to these services, their own small businesses will be better served and start to perform better. An example of this would be farmers who are able to utilize these services to obtain real-time data from market regarding prices of commodities, enabling them to make well-informed decisions on whether to wait one more day or take their goods to a different market. It is assumed and hoped that this new service will stimulate economic growth, not simply sell services and leave the consumers at the same socio-economic level they were with in the beginning.

It can be argued that there is little incentive for franchisees to sell Nokia handsets, since in doing so they are in-effect killing their own business, whose target market consists of consumers who do not own phones. There are reasons to believe however, that this will not be the case; it has been observed in other countries such as South Africa that a large number of users of Community Phone services already own their own handsets, which they use to receive incoming calls for free. These users also use these handsets to send short text messages, which cost significantly less than phone calls. They however prefer to use the Community Phones for any outgoing calls that they need to make, since the rates charged for these services are significantly less than the rates charged by network operators for regular air - time.

The likelihood exists that Safaricom and Celtel would retaliate if Nokia offered the Community Phone services at considerably rates lower than those charged by these operators for normal calls on individually owned handsets. Price wars would cause margins, but not necessarily profits, to shrink overall. However, since Nokia would be offering services to consumers who could not otherwise afford cellular services, incumbent operators may forego price cuts, since their existing customers are those

that can afford traditional service. Another possibility is that Safaricom and Celtel would respond either with price cuts or by introducing a fighting brand to target this previously ignored segment.

3.5 Revenue Growth

The firm must target having at least 800 new stores at the launch of this new service. The firm can accomplish this with the 16 sales representatives, if each of them is given a target of recruiting 67 new franchisees prior to launch, implying four recruits per month, for a period of a year. The firm must implement a go-to-market strategy that covers a period of not more than 12 months.

It is expected that if the firm establishes 800 franchises at launch and provides adequate marketing and advertising for this new service, demand for this service will grow and it should be able to open 12 new franchises per month in the following two years. With these targets in mind, in the first year the number of franchises should increase from the initial 800 to 944, meaning that revenues would increase by USD \$432,000 in the first year after launch (network airtime sales) and an additional USD \$ 5,184,000 from handset sales.

Table 6: Revenue Growth after a Year from Franchisees

Number of franchisees	944
Total Units sold per month @ 0.3 per unit to each franchisee	10,000
Total revenues per month (USD)	2,832,000
Increase in revenue per month (USD)	432,000

3.6 Payback period

The total estimated costs are summarized below.

Table 7: Total Estimated First Year Costs

Marketing	60,000
Screening and Evaluation of Franchisees	200,000
Training Franchisees	200,000
New Business Unit setup costs (Finland)	450,000
Staffing costs (local Nairobi office)	1,150,000
Staff benefits (medical, dental, 15% of salary cost)	172,500
Rent costs (local Nairobi office)	24,000
Network airtime purchase (800 stores, 10000 units per store, at \$0.2 per unit for 12 months)	19,200,000
Cost of handsets (800 stores, 100 handsets sold per store per month for 12 months, each handset costs \$18)	17,280,000
Cost of 800 Containers (at \$4000 USD each)	3,200,000
TOTAL costs first year (USD)	42,791,500

The total estimated revenues are summarized below

Table 8: Total Revenues First Year

Handset sales (800 stores, 100 units per month per store, for 12 months, at \$30 per handset)	28,800,000

Network Airtime sales (10,000 units for 800 stores, for 12 months, at \$0.3 per unit.	28,800,000
30% of franchisee profits, assuming that the minimum amount of air-time is sold by each franchisee (10,000 units, for 12 months, for 800 franchisees, with profit being 0.10 USD per unit of airtime sold)	2,880,000
TOTAL revenues first year (USD)	57,600,000

Based on the above calculations, the firms' new division would be profitable in the first year. The assumptions that underlie these calculations are that each of the franchises will be able to purchase the minimum required monthly airtime of 10,000 units, and that they will also be able to meet the target of selling 100 handsets per month, for 12 months.

3.7 Underperformance Scenarios

The above revenue considerations have assumed that the Joint Venture will be able to run full swing in the first year of operation and that the 800 new franchises will be fully functional. It is important to consider what will happen if the firm is only able to achieve 75%, 50% or 25% of these goals in the first year. It has been assumed that each of the operational franchises in each of the scenarios would still be able to sell the minimum required number of handsets (100 units a month) and airtime (10,000 units a month).

3.7.1 Seventy Five Percent capacity

Table 9: Total Estimated First Year Costs at 75% Capacity

Marketing	60,000
Screening and Evaluation of Franchisees	200,000
Training Franchisees	200,000
New Business Unit setup costs (Finland)	450,000
Staffing costs (local Nairobi office)	1,150,000
Benefits costs	172,500
Rent costs (local Nairobi office)	24,000
Network airtime purchase (600 stores, 10000 units per store, at \$0.2 per unit for 12 months)	14,400,000
Cost of 800 Containers (at \$4000 USD each)	3,200,000
Cost of handsets (600 stores, 100 handsets sold per store per month for 12 months, each handset costs \$18)	12960000
TOTAL	33,529,000

Table 10: Total Revenues First Year at 75% capacity

Revenue Source (first year of operation)	Amount (USD)
Handset sales (600 stores, 100 units per month per store, for 12 months, at \$30 per handset)	21,600,000
Network Airtime sales (10,000 units for 600 stores, for 12 months, at \$0.3 per unit).	21,600,000
30% of franchisee profits, assuming that the minimum amount of air-time is sold by each franchisee (10,000 units, for 12 months, for 600 franchisees, with profit	2,160,000

being 0.10 USD per unit of airtime sold)	
TOTAL	45,360,000

Operating at 75% capacity, Nokia would earn approximately \$12,000,000 USD.

3.7.2 Fifty Percent capacity

Table 11: Total Estimated First Year Costs at 50% Capacity

Cost (first year of operation)	Amount (USD)
Marketing	60,000
Screening and Evaluation of Franchisees	200,000
Training Franchisees	200,000
New Business Unit setup costs Finland)	450,000
Staffing costs (local Nairobi office)	1,150,000
Benefits costs (staff)	172,500
Rent costs (local Nairobi office)	24,000
Network airtime purchase (400 stores, 10000 units per store, at \$0.2 per unit for 12 months)	9,600,000
Cost of handsets (400 stores, 100 handsets sold per store per month for 12 months, each handset costs \$18)	8,640,000
Cost of 800 Containers (at \$4000 USD each)	3,200,000

TOTAL	24,409,000
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Table 12: Total Revenues First Year at 50% capacity

Revenue Source (first year of operation)	Amount (USD)
Handset sales (400 stores, 100 units per month per store, for 12 months, at \$30 per handset)	14,400,000
Network Airtime sales (10,000 units for 400 stores, for 12 months, at \$0.3 per unit.	14,400,000
30% of franchisee profits, assuming that the minimum amount of air-time is sold by each franchisee (10,000 units, for 12 months, for 400 franchisees, with profit being 0.10 USD per unit of airtime sold)	1,440,000
TOTAL	30,240,000

Operating at 50% capacity, Nokia would earn approximately \$6,000,000 USD.

3.7.3 Twenty Five Percent capacity

Table 13: Total Estimated First Year Costs at 25% Capacity

Cost (first year of operation)	Amount (USD)
Marketing	60,000
Screening and Evaluation of Franchisees	200,000
Training Franchisees	200,000
Cost of 800 Containers (at \$4000 USD each)	3,200,000

New Business Unit setup costs Finland)	450,000
Staffing costs (local Nairobi office)	1,150,000
Benefits costs (staff)	172,500
Rent costs (local Nairobi office)	24,000
Network airtime purchase (200 stores, 10000 units per store, at \$0.2 per unit for 12 months)	9,600,000
Cost of handsets (200 stores, 100 handsets sold per store per month for 12 months, each handset costs \$18)	4320000
TOTAL	20,089,000

Table 14: Total Revenues First Year at 25% capacity

Revenue Source (first year of operation)	Amount (USD)
Handset sales (200 stores, 100 units per month per store, for 12 months, at \$30 per handset)	7,200,000
Network Airtime sales (10,000 units for 200 stores, for 12 months, at \$0.3 per unit.	7,200,000
30% of franchisee profits, assuming that the minimum amount of air-time is sold by each franchisee (10,000 units, for 12 months, for 200 franchisees, with profit being 0.10 USD per unit of airtime sold)	720,000
TOTAL	15,120,000

Operating at 25% capacity, Nokia would lose approximately \$5,000,000 USD.

4. INTERNAL ANALYSIS

4.1 Strategy Overview and Strategic fit

Nokia's current strategy has been focused on creating products whose design is unique, engaging customers and fulfilling their needs. The firm has been successful in creating products that are technologically advanced and superior to those produced by other firms.

The firm has traditionally focused on differentiating itself from its competitors. From the early days, the firm was one of the first handset manufacturers to introduce color covers for its devices, allowing users to pick the color they preferred.

However, it is important to note that the firm has traditionally focused only on the creation of handsets and network infrastructure. Nokia Networks was the network infrastructure division of the company. This division was initially slow to penetrate into Africa and the consequence of this was that the firm lost tremendous opportunity to gain market share in the region. Recently, the division has entered into a joint venture with Siemens Networks, merging the network arms of both firms and creating a new firm, Nokia Siemens Networks. It is clear from this move that the firm recognises the value of consolidation under the right circumstances.

Management at the firm realises the fact that developing countries have reached close to 100% mobile penetration rates, and that it must create new innovative products targeted towards emerging markets, if it is going to continue to be successful in this industry. The firm has recently opened offices in four hubs in Africa – Johannesburg South Africa, Nairobi Kenya, Casablanca Morocco, and Cairo, Egypt. It is clear that the firm recognises the importance of these new markets, and the perils of not catering to the challenges and unique demands of emerging markets.

The Community Phone concept fits with the firms' new strategy to focus on the creation of products that are affordable for the large populations that live in third world countries.

The firm currently has approximately 33% market share in the cellular industry, but has in the recent past been forced to surrender some of its market share to its competitors because it was slow to introduce handsets with the clam-shell form factor, and also failed to address the mid-range market which requires phones with fewer features and more affordable prices. The firm has also taken a beating because of its previous reluctance to grant operators enough leeway when it came to customising its products for them.

It is likely that if the firm made a decision to implement the business models proposed in this paper, there would be some opposition. This opposition is most likely to come from those executives who have been with the firm for a long time. The reason for this opposition would likely be that this new model goes against the grain of the firm's current strategy, and signals to the market that Nokia is willing to forward integrate. It is critical that the firm takes action to ensure buy-in from these executives. This can be accomplished by keeping them informed on the strategic reasons behind this decision, outlining the long term benefits that will be accrued, and involving them, where possible, in the planning and implementation phases of this project.

It is not clear however, that the market will react adversely to this move by the firm. This is because the firm has in recent years, made similar moves into the service industry, in situations where clear business cases existed. An example of this would be the recent move by Nokia to purchase the online music store Loudeye Corporation, and the navigation software firm Gate5. In both cases, Nokia recognised the value of

exploring new avenues to facilitate its own long-term growth and relevance in the marketplace. In the case of Loudeye Corporation, Nokia executive vice president and general manager Anssi Vanjoki stated that the firm recognised that music was a key experience for users of its multimedia handsets and wanted to be able to offer a fully integrated mobile music experience to its customers. The agreement between the two firms is a sign that the firm recognised the key role that Loudeye plays in many of Nokia's key markets. The firm hopes that the combined teams will be able to deliver a comprehensive mobile music experience to Nokia device owners worldwide (Nokia Press Releases).

In addition, the firm's new joint venture with Siemens Networks has taken similar steps to ensure that it provides services that cater towards rural and low-income customers. Specifically, Nokia Siemens Networks has developed a partnership-based approach that allows it to target people living in the rural areas of the Asia Pacific region. The firm is developing a "Wireless Village" concept where local entrepreneurs work with the regional wireless operator to offer facilities that include flat rates for local calls, pre-paid as well as post paid services. This service is targeted towards supplying its services to 14,000 subscribers. This concept is currently being piloted in India, and will be expanded to other countries if it is successful (Perera Suharshi).

4.2 Analysis of Nokia's present competencies

4.2.1 User focused design

Nokia's success has most often been credited to its ability to listen to consumers and offer a variety of products created with user-centered design processes. The firm grew its rubber boot business substantially by offering boots in a variety of popular colours

(Breene, Nune). The firms' core consumer focus has facilitated its growth worldwide. This capability is a key factor that has been taken into consideration when creating this business proposal. The firm understands the fact that most of its future growth will come from emerging markets, and it is thus compelled to investigate new and innovative business models that will facilitate further growth and enable it to continue to dominate the telecommunications industry.

4.2.2 Logistics

In one year alone, Nokia manages the logistics required to handle over 100 billion parts in its 10 factories that are scattered worldwide. The firm is currently ranked second in the world, in terms of its efficiency managing its global supply chain. (CFO Magazine, Jan 05 (AMR Research))

On a daily basis, the firms' production plants take in 275 million components as inputs and create 900,000 finished mobile handsets as outputs. There are enormous challenges associated with managing such massive volumes, and the firm has been able to turn high-tech manufacturing and logistics into one of its key core competencies (Reinhardt).

4.2.3 Customisation and Assemble-to-Order

Nokia manufactures its handsets using two distinct processes. In the first process, the engines of the handset are built. Engines are generic and can be customized to suit different clients. In the second process, specific orders from different Network Carriers are taken into account and the generic engines produced in the first stage are transformed into built-to-order phones. These phones are customized to have different faceplates, logos, and special keypad buttons. Software is also customizable and

portions of it vary from one operator to the next, with different menus, graphics and other branded elements. The firm utilises Assemble-To-Order processes, meaning that it does not hold any inventory of parts – instead, phones parts are purchased and the phones assembled only once a customer makes an order. This Just-In-Time approach has allowed Nokia to keep its inventory costs low, allowing it to minimise its risks.

4.3 Analysis of Nokia's needed competencies

4.3.1 Screening Potential Franchisees

Nokia has insufficient expertise and experience in recruiting and screening franchisees. To screen potential franchisees, Nokia will need access to information such as the credit history of potential franchisees, as well as information on the experience levels that entrepreneurs possess managing businesses. The main challenge that the firm will face here is that there is no comprehensive credit system in Kenya, and it is difficult to ascertain the creditworthiness of individuals. The firm will most likely be forced to revert to more simplistic methods of screening, such as reviewing bank statements of potential franchisees to assess whether or not they have sufficient finances to operate the business. The firm should also contact the financial institutions that have issued those statements, in order as to ascertain their validity.

4.3.2 Franchise management

Nokia does not have experience running and managing franchises. The firm is currently active in Africa, and has opened two flagship stores in Nairobi Kenya, where Nokia merchandise is sold. The firm does not run the store; it is instead run by entrepreneurs who are authorized distributors. However all branding and marketing materials are provided by Nokia. The firm would need to recruit managers with

previous experience doing business in Africa, particularly those with franchising experience.

4.3.3 Doing business in Africa

Although Nokia's products are well known and actively sought after in Africa, it has only recently opened offices there. It has historically sold its products through distributors located in the region, and as such has not actively had to deal with the locals directly. The firm has on average only a handful of authorized distributors per country. This newly proposed venture however would require that the firm wholly immerse itself into the region, and start to deal directly with upwards of 800 entrepreneurs in one country alone. It is essential that the firm hire a fair number of locals in its offices, and not follow its traditional route of filling new offices with expatriates who have very limited knowledge of the local ways of doing business.

4.3.4 Network Operations

For the past 14 years, Nokia has focused on the production of telecommunication devices and network equipment. The firm has no current competencies in the provision of network services to end consumers. By offering this new service, the firm will be directly competing with its own customers. This is an issue that the firm must be prepared to carefully manage. Safaricom Ltd is the incumbent Network operator in Kenya, and it has traditionally relied on Siemens Ltd to provision its Network Infrastructure, and Nokia to supply it with handsets. It is imperative that the firm manage its relationship with Safaricom, to ensure that the firm does not retaliate by stopping the purchase of Nokia handsets and instead purchase handsets manufactured by Nokia's competitors. The firm will need to hire experienced

managers who have worked previously in the rollout of network services to previously un-commissioned areas.

5. ANALYSIS OF ALTERNATIVES

5.1 Mobile Virtual Network Operator (MVNO)

The initial alternative for the firm is to operate as an MVNO. A Mobile Virtual Network Operator is a network operator that does not have a licence for a specific band of radio frequency spectrum, and has no network infrastructure, but instead has business arrangements with traditional established mobile operators to purchase airtime for resale to its own customers. The value that Nokia would bring as an MVNO would be in its brand appeal. The firm would purchase airtime from Incumbent network operators, and resell it to its franchisees. The firm would also purchase the rights to utilize the incumbent's network infrastructure.

The main issue here would be that it would initially seem that there would be no incentive for the incumbent network operators to resell airtime to Nokia, because it would be creating a direct competitor. However, it has been observed in other markets that MVNOs actually offer tangible business benefits to traditional established network operators. First, MVNOs enable the traditional network operators to broaden their customer base, at zero cost to themselves. This allows the incumbent to more quickly offset the costs incurred in building their networks (MobileIN). In addition, many regulatory bodies have been found to act in favour of MVNOs and legislation has been enacted that forces the incumbents to allow these MVNOs direct access to the existing networks. In South Africa for example, ICASA has mandated that all dominant players must allow new competitors access to their radio spectrum and physical network. The newest player in that market, namely Cell-C, has been able to sign a 15-year roaming agreement with Vodacom, which allows the firm to use its competitor's lines until its own network is developed (Reck, J and Wood, Brad).

5.1.1 Benefits of MVNO approach

The MVNO approach will allow Nokia to quickly implement this new Business Model and increase its speed to market in offering this new service. This is because the firm will not need to spend any time or resources building its own network infrastructure or applying for a licence from the regulatory authorities in Kenya.

This approach also reduces the overall risk for the firm, since the firm will not need to invest enormous amounts of capital setting up infrastructure, as well as building sufficient experience in the network provisioning industry.

5.1.2 Issues pertaining to MVNO approach

In order for this business model to work, there has to be a significant advantage that Safaricom Ltd is gaining, before it would consider enabling a new competitor unlimited access to its network. The onus will be on Nokia to prove that that its services will be complementary to, rather than competitive with, Safaricom's own goals. Safaricom Ltd has already begun to provide Community Phone Services in a number of communities in Kenya, albeit at a much smaller scale than in proposed in this report, meaning that Nokia would be in a difficult position trying to convince the firm of the benefits of this idea.

Nokia is unlikely to secure wholesale prices that ensure that the service it offers remains competitively priced in the market. This is because, unlike in more developed countries like South Africa, there is no legislation in Kenya that forces Network operators to sell Network Airtime at wholesale prices to MVNOs. Even if the firm is able to secure some form of discount, it will most likely not be enough to ensure that it is able to maintain the type of gross profit margins that Nokia is accustomed to

earning. Another issue with this approach is that the firm would now be competing directly with one of its key customer in Kenya, Safaricom Ltd. Safaricom Ltd has over 70% market share in Kenya and is the key channel through which Nokia is able to sell majority of its handsets in Kenya. This is not a position that the firm should put itself in, because the ramifications may be that Safaricom Ltd will then abandon Nokia as a key supplier, and instead start to focus on other suppliers like Samsung and Motorola who are not attempting to compete with it and erode its market share in Kenya.

5.2 Apply for Network Licence

Alternately, the firm could apply for a Network Operator licence from the regulatory body in Kenya, which would enable it to operate as an Operator. The firm would then construct the necessary network infrastructure required to roll out these new services, and when this is ready it would then sell its own airtime to its Franchisees.

5.2.1 Benefits of Network Licence approach

The advantage of this alternative is that the firm would not be reselling airtime purchased from Incumbent network operators and thus it would be able to keep its tariffs reasonably low. Another key advantage would be that the firm would be able to purchase the network infrastructure from the Nokia Networks division of the firm. This may mean that the firm is able to keep its costs competitively low when compared to those of Safaricom Ltd and Celtel Ltd.

5.2.2 Issues pertaining to Network Licence approach

A key issue that must be taken into account with this approach is that it would take considerably longer to implement because of the time that would be required in order for the firm to complete the construction of this infrastructure. Another disadvantage of this approach is that the firm would be required to build and maintain its own

network infrastructure, which would drive the costs of this proposed venture considerably high.

Historically, the Kenyan government has been extremely slow to grant new mobile operators Network licences. The process of applying for a new licence is outlined and governed by the Communication Commission of Kenya (CCK). The process is not as straight forward as they would like to make it appear. CCK, like most governmental bodies in Kenya, is subject to corruption, and it is often necessary for firms to be required to pay massive bribes to government officials before any application that they submit to the body is tabled for consideration. Taking into consideration the fact that Nokia is a Finnish Company and Finland has zero tolerance for corruption, this route is likely to be an onerous and challenging one that will likely bear no fruit.

A second issue with this approach is that it pits Nokia against directly against its current customers, who are the Incumbent network operators. These network operators currently purchase not only handsets from Nokia, but also Network infrastructure equipment from the network division of the firm (now Nokia Siemens Networks). Nokia would most likely be putting itself in a position where these operators may choose to retaliate directly, and start to offer their business to Nokia's main competitors. This is an issue that Nokia must carefully consider.

A third issue with this approach is that in order for CCK to issue a licence to an operator, it requires proof from that operator that they have previous experience managing a network with at least 500,000 subscribers. Vodafone Ltd, the largest operator in the world has 40% ownership of the Safaricom Ltd. The second operator in Kenya, Celtel Ltd is owned by MTC Kuwait. Based on this regulation it would not be possible for Nokia to go it alone and attempt to start operations as a new network

operator in Kenya. The firm would have to consider getting into some form of partnership with an already established cellular operator.

5.3 Joint Venture with Incumbent Network operator

The third alternative for Nokia would be to enter into a Joint Venture with Safaricom Ltd. This is a firm with complementary capabilities, which would ultimately allow Nokia to enter this new market space faster. The venture would require each of the two firms to contribute a predetermined proportion of the total estimated capital required for the venture. This contribution would form the initial equity for the new firm.

5.3.1 Benefits of Joint Venture Approach

The main advantage with this approach is that it means that Nokia is not attempting to compete directly with its customers. Other advantages to be gained by this approach is that it allows both firms to spread their risks and costs, while at the same time taking advantage of this new market space, allowing both firms access to a new set of previously inaccessible customers. It would also give Nokia an increased speed to market, and pre-empt other handset manufacturers from engaging in similar activities with Safaricom.

The Joint Venture would leverage the core competencies of both firms, with each firm bringing in capabilities that it has had sufficient experience building. Safaricom already has sufficient experience installing network infrastructure in previously un-serviced areas, as well as billing customers, and managing franchisees that run its stores across the country. It is also a local firm and as such, its management team has a considerable amount of knowledge regarding doing business in Africa, and specifically Kenya. Nokia on the other hand has considerable experience in logistics,

customisation and creating products that are user friendly. The firm also has a very strong brand, which is well established and respected in Africa.

5.3.2 Issues pertaining to Joint Venture Approach

In-order for this Joint venture to be successful, it is important that Nokia consider several strategic issues that must be carefully analysed and managed.

5.3.2.1 Brand Erosion

In Kenya, most consumers associate Nokia with high quality products, produced in Europe. Although a great number of these consumers are not wealthy, a large majority fall into the category that the firm refers to as the “aspirational poor”. Many of these consumers are unaware that the firm has manufacturing plants in many countries around the world including China and Mexico. Distributors for Nokia's products in Kenya often go to great lengths to ensure that the batches of product that they purchase come from the European factories, since these products are labelled as having been “Made in Hungary, Germany or Finland”. Many distributors’ have complained when they receive products from the Chinese factories, because consumers often assume that those products are not authentic Nokia devices, or that the Chinese factories could not be manufacturing products using the same stringent standards as their European counterparts. By joining forces with a local firm and creating a local product, Nokia may erode people’s perception of its own brand. The issue here is that although the people who cannot afford telecommunication products may initially gladly buy into this new service, it is highly likely that when they eventually move up the economic ladder and are able to afford to purchase

individually owned handsets they may opt to purchase those manufactured by Nokia's competitors.

In-order as to overcome this issue, the firm will need to allocate sufficient resources towards educating consumers on the fact that the products it manufactures all abide to certain standards. The firm will need to embark on marketing campaigns whose purpose is to get the consumer to understand the fact that Nokia products should still be considered to be of high quality, even when produced locally. The firm should capitalise on the consumers' patriotism, and actively sell the idea that the joint venture demonstrates Nokia's commitment to providing locally relevant products at affordable prices.

5.3.2.2 Signals sent to other markets

Another key issue that the firm must take into account when considering this new business model, is the signals that this new venture will send to its other key markets, specifically those that are in the same economic position with Kenya. It is likely that some of Nokia's competitors will quickly attempt to form similar joint ventures in other countries, or find a different way of offering this service. Nokia would probably not be interested in embarking on this new venture if it is not viable to replicate whatever successes it has with it in other markets. However, the issue here is that because of different legislation in different countries regarding foreign firms forming joint ventures within the host country, it is likely that the firm may have to use different approaches for each country where it hopes to offer this service. To manage this issue the firm must pre-empt competitors by identifying early on which other markets are ideal candidates for this new business proposition. It is critical that the firm be prepared to approach network operators in these other countries regarding

forming similar partnerships. It is assumed that because the Nokia brand is quite well respected in most emerging markets, the firm would have the upper hand in these negotiations, when compared with its direct competitors such as Motorola and Samsung.

5.3.2.3 Loss of effective Management Control

Although there are no laws in Kenya that limit foreign firms to minority participation when entering into a joint venture with a local firm, it is likely that Safaricom would want to have at least 50% ownership of the Joint Venture. This will mean that Nokia will not be able to manage the new business exactly the way it would like. Both Nokia and Safaricom are very successful firms but have very different corporate cultures, which is linked to social aspects of the culture of the senior management teams in both firms. Safaricom is a local firm and its management team is mostly African, whereas Nokia's senior management comprises of mostly Europeans. These cultures have distinct differences. The Kenyan culture is more sociable and personal relationships must be cultivated and nurtured before any business deal is struck. Transparency International currently ranks Kenya as one of the most corrupt nations in the world by whereas Finland is ranked the least corrupt. It is very likely that some actions that the Kenyan management team regards as the norm would raise eyebrows amongst the Finish management team. Nokia would need to carefully consider this issue, and negotiate for at least 51% ownership and voting rights within the Joint Venture, in-order to protect itself in situations where the firm is required to make decisions that require ethical judgement.

6. RECOMMENDATIONS

It is my recommendation that Nokia diversify and become a provider of Community Phone products and services. The firm should start a Joint Venture with Safaricom, and utilise a franchise model to implement this new business. The joint venture should consist of an even split of ownership between both firms.

The reasons for this recommendation are

1. The Joint Venture approach allows Nokia to close the gaps in its competencies that have been outlined previously. Since Safaricom is a local Kenyan firm, it has experience doing business in the country, which is a key capability that Nokia is lacking. This approach allows both firms to continue to build on their existing strengths, while at the same time benefiting from each other. It also allows them to spread the risks and costs of this venture.
2. The Joint Venture approach will pre-empt competitors from establishing a similar business model. Safaricom is the largest operator in Kenya in terms of market share, and is a key partner to have when establishing this business. If Nokia's direct competitors such as Samsung and Motorola attempt to enter this market space later, they would be hard-pressed to compete with this joint force. These competitors would be compelled to either join with smaller market players, or go it alone, which would mean they would be faced with the issues that Nokia is avoiding by taking this route.
3. This model will allow Nokia to directly influence the structural evolution of the industry. At present, handset manufacturers are all competing to make the lowest cost handset, in-order as to create products that are affordable for emerging markets. Developed markets have been found to have mobile

penetration rates of close to 100%, meaning that everyone that needs a cell phone already has one. It is clear that these firms now need to search for alternative markets for their products, and most of these firms are doing this by creating low-cost handsets. It is evident however, that even with low cost handsets there is still a significant population that is not being serviced and only creative and innovative business models will allow firms to reach the people who sit at the bottom of the economic pyramid. By being a first mover, Nokia will have an opportunity to shape the industry.

4. Speed to market: The Joint Venture approach allows the firm to quickly begin its operations, since Safaricom Ltd is already a well-established firm in the market. Any of the other aforementioned alternatives would require the firm spend considerable time and effort learning the ropes on how business is done in Kenya, how to manage a Network Operator business, and how to manage franchisees. These are all skills that Safaricom already possesses and the Joint Venture approach allows Nokia to leverage these skills.

The firm should begin by offering its services in key South Eastern Africa markets of Kenya and South Africa, and then spread further into other countries within the region.

The firm should follow the suggested implementation: For consumers with sufficient income, the firm should continue to market and sell its handsets. This is Nokia's core business and the firm has been able to perform remarkably in that arena. However, for customers who are unable to afford their own handsets, who currently comprise the majority of Africa's rural population, the firm should create a new business unit that will roll out the Community Phone Shop services. The firm should not offer the

service directly to consumers. Instead, it should utilise franchisees that will be responsible for the actual ownership and running of the stores. Initially Nokia will select the location where the stores are located, but as the new service is implemented widely, it will be up to potential entrepreneurs to approach the firm with requests to open franchises at other specific locations.

The business model being proposed in this paper would require that each franchise owner would in effect be acting as a distributor for Nokia's products (handsets in the store) and services (phone lines to make calls, access to data services such as fax and email). The key advantage of this setup is that the firm would be able to distribute its products in small volumes through each franchise owner, to a massive geographical region. This would take place in areas that would have been otherwise infeasible or uneconomical for the firm to single-handedly attempt to sell its products because of the fact that the population in these rural areas is not highly concentrated in one area but is instead sparsely distributed. The business model on its own lends itself to enabling the firm to create distribution channels at a low cost. The firm has significant resources and would be in a position to offer lucrative distribution incentives for potential franchisee owners.

6.1 Benefits to Safaricom

In order for Nokia to successfully convince Safaricom Ltd to participate in this Joint Venture, it must clearly demonstrate what benefits it believes Safaricom will accrue by taking this step.

6.1.1 Brand Power

By joining forces with Nokia, Safaricom will be able to leverage Nokias' brand recognition and boost the value of its own brand. This will likely mean that even in other service areas outside the joint venture, the Safaricom's brand will increase in value, allowing it to compete more effectively in the market against its current competitors. Nokia is the market leader in emerging markets, and particularly in Africa. The demand pull that Nokia will be able to create will help Safaricom reduce its overall marketing costs for each new rural customer that it acquires. The fact that these consumers possess brand loyalty towards Nokia will mean that Safaricom will be able to reduce its overall retention costs in the long run. This brand power will continue to deliver benefits to the firm at all stages of the customer lifecycle, from the point a new customer starts to use the Community Phone to the point where they can afford to purchase their own handsets and standard-rate airtime.

6.1.2 Access to more capital

The Joint Venture will provide Safaricom with access to more capital, allowing it to easily expand into this new arena. Safaricom Ltd is a local firm and is majority owned by Telkom Kenya, a government subsidiary. The firm has experienced tremendous growth in the past six years, but a lot of its infrastructure is currently underutilised because there are not enough people in the country with enough disposable income to afford its current services. The firm has thus tied up a lot of its capital in equipment that is currently un-used. This new venture will allow the firm to start to recoup on its previous investment, at a low cost, since costs would be shared with Nokia.

6.1.3 Access to Training and Ability to Learn from World-Class Firm

Safaricom would be exposed to a world-class firm, which would allow its executives to learn valuable knowledge and management expertise from Nokia. The joint venture would also put Safaricom on the map globally, since the very act of Nokia getting into such a venture is likely to cause a lot of press coverage. This goodwill will be of great value to Safaricom in the long run, and will allow Safaricom to establish itself as a world-class organisation. If Safaricom later decides to expand its services outside of Kenya, this joint venture with a world-renowned firm will no doubt add to the firms credibility during competitive bids.

6.2 Possible repercussions to Safaricom

6.2.1 Financial Ramifications

The Joint Venture will require Safaricom to invest significant amounts of capital and other resources. The firm is relatively young, and as such, any loss of experienced managers may affect the firms' performance in its current sector. The firm will also need to divert capital from its current operations into this new venture, which could impact the old organisations ability to grow.

7. IMPLEMENTATION

7.1 Franchises

7.1.1 Franchisees Financials

Table 15: Costs – First Year

Start-up costs	\$3500
Handset costs (100 units at \$30 per unit, for 12 months)	\$36,000
Airtime costs (10,000 units, at \$0.3 per unit, for 12 months)	\$36,000
Salary Costs (annual)	\$10000
Total Costs (USD)	\$ 85500

Table 16: Revenues – First Year

Handset sales (100 units, at \$45 per unit, for 12 months)	\$54,000
Airtime Sales (10,000 units at \$0.4 per unit, for 12 months)	\$48,000
Total Revenue (USD)	\$96,000

The total profit to be earned by each franchisee in the first year would thus be \$20500, and 30% of this profit would be accrued to Nokia, leaving the franchisee with \$10500 in profit after year one.

In addition these containers would be located in areas that do not have electricity meaning that the costs of powering the phone-lines are already factored into the start-up costs which include rechargeable battery packs.

7.1.2 Phone shops – Physical elements

Nokia should follow the model that Vodacom in South Africa has used, and utilize refurbished shipping containers to act as phone shops. Although it is feasible to have phone shops in shopping centers, the target market for this service is located in the fringes and the firm will most likely have to rely on creating its own store locations to house its services for franchisees. Shipping containers have been found to be preferable compared to using locally available resources to build the phone shops, because they fare well in all weather conditions and offer durability against break-ins. Vodacom's refurbished shipping containers are 18 feet in length and are easily remodelled to suit the requirements of phone shops (see Appendix 1). According to information from Vodacom, the going rate for shipping containers is approximately \$4000 USD. This price includes the cost of modifying the container for the purposes of using it as a phone shop. Shipping Containers are available for purchase directly from shipping lines after approximately 7.5 years of use. The cost of shipping the containers to the site at which the business will be located has been found to be \$200 USD on average for Vodacom, and the container is delivered to the pre-selected site by a transport crane truck (Reck, J and Wood, Brad).

The container would need to be remodelled so that it fits a service counter on one side. This would be the same side where the phone shop owner would be located to collect money and program phone units with the amount of airtime purchased by consumers. The container should be painted with Nokia colors, and have the Nokia logo boldly painted so that it is very distinguishable from all directions.

7.1.3 Location

The firm must set out specific criteria on where franchisees can locate stores. It is critical that the services be provided in areas where there is a high enough population to service. The stores must also be located in communities that fit certain demographic criteria, such as rural communities, or densely populated low-income communities in urban areas. The phone stores must be located in high traffic areas within the above-mentioned communities, for instance at bus stations or farmers' markets. The stores must be located in areas that offer them access to electricity, if possible, or otherwise phone shop owners must be willing to purchase batteries as alternative energy sources.

7.1.4 Technology

Franchisees will be required to purchase specially designed phones from Nokia. Each Franchisee will need to purchase at minimum five handsets. These handsets will be designed in a way such that although they resemble traditional landline handsets, they actually utilize GSM mobile technology. The phones will have software that allows an operator to pre-program the number of minutes that a user can consume. Nokia already owns this software application and currently includes it in its low cost handsets. The phone will come with a visual display that alerts users to the time remaining on a call. Each of the five phones will be connected to the attendant of the store, allowing him to pre-program the amount of time a user has purchased before that user starts to make a call. Each franchisee will be required to pre-pay for airtime from Nokia. This network time will be credited directly to their five phone lines. The phone will be pre-programmed to charge at a certain rate, which will be predetermined by Nokia and not modifiable by individual franchisees. The phones will run off the main electricity grid in urban areas, and batteries in rural remote areas.

7.1.5 Ownership Structure

The individual Community Phone shops will be owned and operated by the franchisees. A contract will be signed between Nokia and the franchisee that will determine the length of time over which the franchisee has the rights to the franchise.

The franchisees will be required to pay for the cost of maintaining the shipping container, as well as the communication equipment (phones, billing equipment, and battery power source). The estimated start-up costs for the franchisee is \$3500 USD.

This cost does not include the entry-level handsets that are to be sold, or airtime.

The franchisee will be required to pay Nokia a fixed percentage of profits (30%), a reasonable amount when compared with what Vodacom South Africa is known to accrue from its franchisees (60% of profits) running similar operations.

Franchisees will be responsible for finding a proposed location for their container, as well as paying whatever rent is required to utilize that location. Nokia would reserve the right to approve or disapprove of selected locations.

Nokia will cover the initial costs of marketing and advertising this new service throughout the region.

7.1.6 Human Resources and Administration

It is recommended that the firm establish regional hubs to manage the administrative tasks associated with this new venture. In East Africa in particular, the firm should set up an office in Nairobi Kenya, which is the biggest city in the region. The firm should hire a regional director who will be responsible for overseeing this new venture, and developing operational procedures, policies, and strategic plans. There should be six franchise managers responsible for the activities that the firm needs to undertake in order to vet, screen and process franchisee applications. These six managers should be

split evenly between the three countries in east Africa (Kenya, Uganda and Tanzania). These franchise managers will report directly to the regional director. The firm should also hire 16 sales managers, who will be responsible for recruiting potential franchisees in the area, with an even split of four sales managers per country. In total, this would mean that the firm requires a staff of at least 23 staff to carry out in house duties. Any other tasks may be outsourced.

7.1.7 Training

Franchisees will require training to run and maintain the equipment. It is recommended that the firm outsource this task to an external training agency. Franchisees should be trained in reasonably sized groups, to minimise the total cost of training.

7.2 Joint Venture

7.2.1 Marketing the Product

It is important that the firm utilise local marketing firms to create marketing campaigns that are locally relevant. The firm should contract a local partner who can advise on how to create effective marketing campaigns in rural and remote areas. Since this product is targeted towards low-income earners, the firm should focus on creating marketing campaigns on media that are easily accessible to this group. These media would include print and radio spots primarily. Product demonstrations should also be carried out in pre-selected, key high traffic areas. The effect of these demonstrations will be to show potential consumers that the product is simple and easy to use. The firm should allocate funds to create T-Shirts and Bush-hats with the Nokia-Safaricom Logo on them, as well as an imprint of a catch phrase in Swahili that captures the essence of the new product. These items should be treated as complimentary during product demonstrations in the market areas.

7.2.2 Ensuring Product Quality and Brand Consistency

It is imperative that the firm implement strict measures to ensure consistency of quality throughout its franchise network. From the onset, the firm must establish quality standards for its new product and then convey those standards to its franchisees. The firm must hire trainers to ensure that all franchisees are consistently educated and trained on what the brand means and how it must be delivered to the customers. In addition, it is imperative that it also hires Field Representatives whose only role is to travel through the country visiting the franchises and ascertaining that they are running the business based on the standards set forth by the firm. Brand standards must be uniformly enforced at each franchise location. Enforcement must be consistent and objective. Penalties for breaching brand standards should be set forth in writing and clearly articulated in franchise agreements.

7.2.3 Mastering Host Country Environment

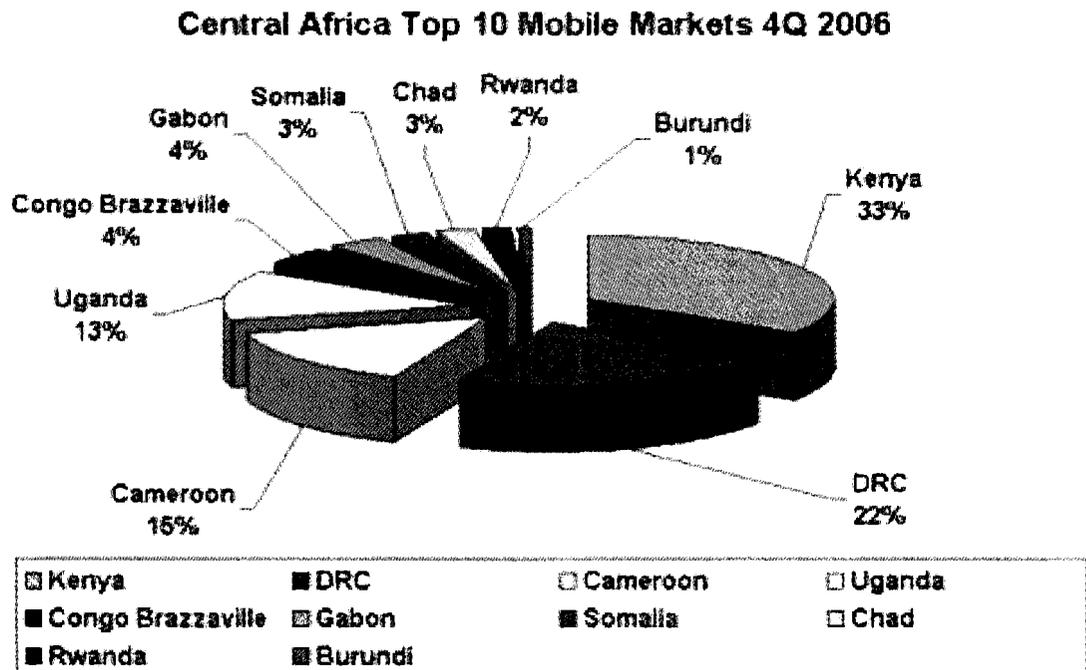
The firm must not follow its traditional route of depending on foreign staff to start up local operations. Sixty percent of the staff must be locals, and the other 40% should be brought in from other Nokia operations worldwide. The reason behind this suggested staffing mix is the fact that Kenya is distinctly different in culture compared to other countries where the firm has traditionally operated. It is important that the firm get local staff who are more knowledgeable on how best to do business in Kenya, and who have relationships with key people in the region.

8. LONG TERM VIEW

The initial venture in Kenya should serve as a pilot project. The firm must evaluate the ventures performance and make a decision regarding scaling up its activities and replicating this service elsewhere in Africa. It is recommended that the firm expand

into other African nations, starting with those that offer the biggest possible return on investment.

Figure 2: Top Mobile Markets in East and Central Africa



Source: industry sources and Blycroft estimates © Blycroft 2007

Following expansion into South Africa, the recommended route would be for the firm to venture into the Democratic Republic of Congo (DRC), which is a highly populous region where mobile subscriber growth has been phenomenal over the past few years, despite the civil unrest in the region. The DRC is a lucrative market mainly because of its sheer size of 2.34 million sq. km. and vast population of over 56 million people (BBC Country Profile).

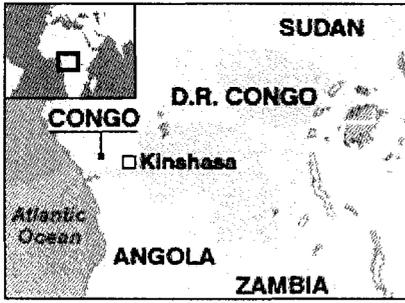


Figure 3: Democratic Republic of Congo

9. CONCLUSION

Firms must be willing to rethink their fundamental business models by not only offering new products, but also by redefining competition and creating new markets. By being innovative, and focusing on non-traditional strategic initiatives, firms can develop new markets spaces (Yates).

This report finds that personal phone sharing is driven mostly by cost, rather than by social drivers. Lower handset costs and an increase in sole phone ownership will reduce the extent to which phones are shared. However, the cost of running the phone is likely to remain relatively high so community phones usage will continue to grow at least for low-income users needing to make out-bound calls. Lower income consumers tend to be highly price aware and optimise their communication practices to take advantage of even small savings. If a phone-kiosk (or alternative medium) offers a cheaper way of communicating then this will be used, regardless of mobile phone ownership.

It is my conclusion that it is imperative for the firm to adapt its business model in order to profitably serve lower income consumers. The firm must create and follow a model that:

1. Optimises its overall coverage and capacity, without sacrificing the quality of the product that it offers to its consumers.
2. Reduces the total costs-to-serve through the creation of tailored operations and customer service.
3. Maximizes the efficiency of the firm's marketing and sales activities.

4. Increases its market share and total revenues with affordable yet profitable propositions.

The franchise model should work well in fulfilling the above-mentioned needs. This is mainly because the large geographical area that needs to be covered in order for this to be a profitable operation for the firm would make the management costs of individual local operations prohibitive. The model proposed also allows the firm to venture into a new sector of the telecommunications industry, while at the same time keeping its risk levels relatively low, since most of the risk would be carried by the franchisees.

If the firm decides to follow the suggested strategy, it will have first-mover advantages that are critical for this particular service since it means that it will have already positioned its franchise stores in high traffic areas around the country and would have begun developing early relationships with consumers and suppliers.

By developing a new dual-strategy, where the firm continues creating, developing and supplying products and services for the middle to high-income consumer, while at the same time having a product that is affordable for the low-income segments in Africa, Nokia will be able to reap significant benefits from consumers who fall on both sides of the economic spectrum. As the low-income consumers climb up the economic ladder and are able to afford to purchase individually owned handsets, they will be more likely to exhibit brand loyalty and purchase a Nokia brand handset.

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11. APPENDICES

11.1 Appendix 1: Photos

Figure 4: Example of Vodacom Refurbished Container



Figure 5: Example of a Wireless Handset with Call Display

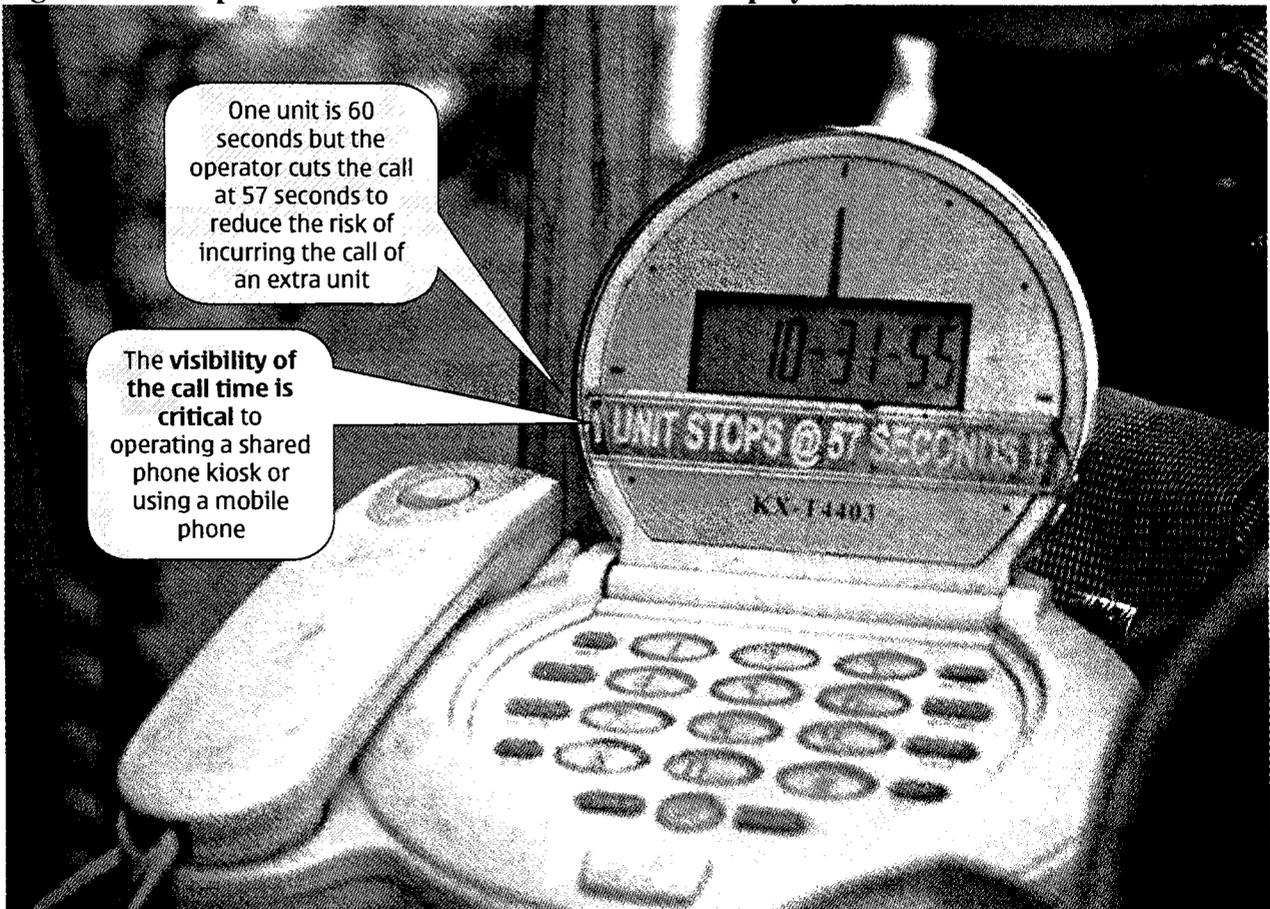
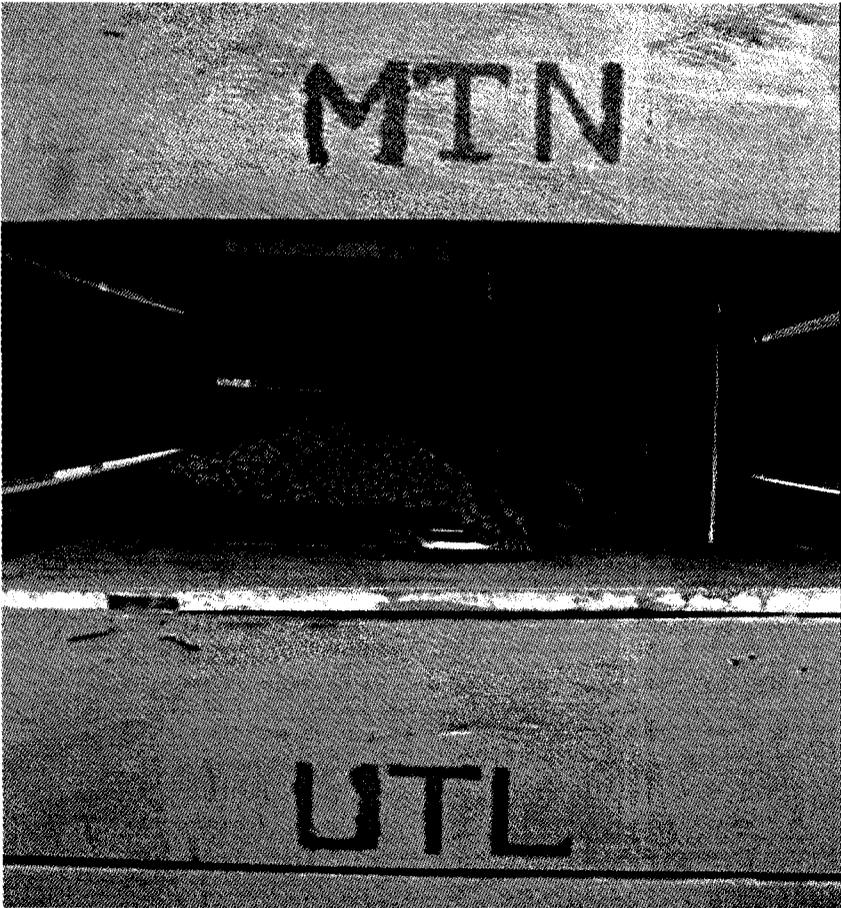


Figure 6: Individually Operated Makeshift Phone Kiosks





11.2 Appendix 2: Questionnaires and Survey

1. What is your current occupation?
2. Do you own a mobile phone?
3. If you do not own a mobile phone, what is the main reason behind that?
4. If you own a mobile phone, who is the manufacturer?
5. Where did you purchase the mobile phone?
6. How much did the mobile phone cost?
7. How many adults live in your household?
8. How many mobile phones are in your household?
9. Do you share your mobile phone on a regular basis with any other persons?
10. If you have shared your mobile phone with other persons, did you charge them for the service?
11. Have you ever used a Community Phone?
12. If you have used a Community Phone, how often per week (how many phone calls) on average did you make there?
13. What other services besides making outgoing calls would you like to see offered by Community Phone providers?
14. How much airtime do you normally upload to your mobile phone?
15. Do you use your mobile phone mainly for personal calls or business?

16. What services or applications do you use on your mobile handset other than voice calling?

17. How often do you contact family member or friends that live outside of the urban areas?