The POINT

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Telecommunications Sector: In the grip of a monopoly

Kenya telecommunications sector has seen some progress following the commencement of liberalisation in 1999. Evidence of such progress could be seen in the fact that the new regulatory structure is in place and that a second mobile telephone services provided is in the market. However, the conflicts between the Kenya Communication Act and the sector policy statement is raising important challenges that could wipe away the progress thus far. The Institute of Economic Affairs held a public forum to conduct a policy and technical audit of the sector. ***Mr. Francis Muthaura (Permanent Secretary, Ministry of Transport and Communication)***; ***Mr. Richard Bell (Chairman, Telecommunications Service Providers Organisation of Kenya)***; Mr. Muriuki ***Mureithi (Managing Director, Summit Strategies)*** provided insights on the milestones and policy options. The Point presents highlights below.

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Since government commenced the formal liberalisation in the telecommunications sector in 1999, public scrutiny of progress has been quite keen. Now that two years have passed since the sectoral policy and statute were placed into operation, there is need to examine the performance so far and identify the extent to which progress has been made. The process of liberalisation began with the publication of two key documents. These were the ***Kenya Communications Act*** of 1998 on and the Telecommunications and Postal Sector Policy Statement of 1999. When these two documents were drafted, the telecommunications sector in Kenya was largely underdeveloped and to a large extent very inefficient. The purpose of these documents therefore was to initiate reforms within the sector in order to align it to changes and possibilities that the world environment provided.

Each of these documents expressed this intention variously. The Kenya Communications Act was published in 1998 and set up the legal framework for the entire sector. It pronounced the disarticulation of the Kenya Posts and Telecommunications Corporation (KPTC) into three distinct entities with varied roles. These relevant institutions are Telkom Kenya Limited, The Communications Commission of Kenya and the Postal Corporation of Kenya respectively. Among its most significant prescriptions is ***Section 5(5)*** which explicitly states that the telecommunications sector may not bear either a monopoly or duopoly in any market. This particular clause would in time become quite significant. The statute also provided for the rights and obligations of the service providers and the consumers.

The Telecommunications and Postal Sector Policy Statement on the other hand was released in 1999. Its specific aim is to revitalise the sector and place it in a position to contribute towards making the country a recognised regional centre for financial and industrial activities. This policy document articulated the specific division of the Kenya Posts and Telecommunications Corporation (KPTC). It was meant to put into operation the roles of the regulatory agency, the telecommunications services provider and the postal services provider.

In terms of the overall policy objectives or targets, the policy statement sought to achieve telephone coverage of up to 20% in urban areas and 1 line per 1000 in rural areas within a fifteen- year time frame. Calculated at the average cost of a telephone line at present, the attainment of this target would require a sustained annual investment of $270 million. It was immediately apparent to government that this massive investment could not be achieved easily, hence the need to put in place an environment that allowed for private sector participation and investment.

The Sectoral Picture in 2001

Since the formal liberalisation commenced, the telecommunications sector has without doubt shown some considerable progress. However, this does not imply that the progress is necessarily satisfactory. It should be recalled that both the statute and the policy statement envisaged the prompt liberalisation of the sector by the unbundling of the monopoly Kenya Posts and Telecommunications Corporation (KPTC). There was no specific timeframe for the major changes stated in the telecommunications policy paper but it was generally suggested that there would be incremental steps towards the prompt privatisation of Telkom Kenya.

While the major issue on the one side was to sufficiently reform Telkom Kenya before its partial disposal to a strategic partner, on the other side, government did not lose sight of the fact that private sector participation in this sector was long overdue. The implication of this realisation is that as private sector participation would grow, it was to be expected that government influence in the sector would proportionally diminish. The state of affairs two years after the formal liberalisation began shows a mixed picture in the sense that there is some private sector involvement but with government involvement still paramount. The structure of the sector has without doubt influenced the level of development in those two years and also the challenges that are becoming increasingly evident.

@ *Internet Services*

To begin with, the Telecommunications and Postal Sector policy Statement did state that the development of the sector would proceed within a defined market structure. By virtue of this proclamation, the requirement for competition in the sector was tactfully circumvented. Regarding the provision of Internet services, the statement stated that the Internet backbone would be the monopoly of Telkom Kenya, the successor of the KPTC. Internet Service Providers all have had to depend on Telkom Kenya to provide the service in bulk to them that they may then distribute in usable units to their individual customers.

The ridiculous state of affairs is easily illustrated by the fact that licences for the provision of Internet services have been issued to over 60 independent applicants. However, as the number of Internet Service Providers has risen quite substantially, they are all obliged to procure the critical service from a monopoly. The monopoly status of Telkom Kenya is in this instance hardly justifiable as it is an obvious and demonstrated hindrance to the growth of the Internet services sector. Market distortions invariably arise when one side is completely liberalised and the supply side is a monopoly.

Despite the existence of the Internet backbone monopoly, the price of the service has reduced substantially on account of the increased competition at the Internet service provision level. However, the major determinant of the price reduction is because the service providers have opted to procure the service from the cheaper Jambonet service as opposed to the Kenstream link. The service providers opted for the latter link due to the fact that it costs about one third as much as the cost of the former. In this way, they have managed to reduce their costs of service to their customers. However, this reduction in prices for consumers is compromised by the fact that both the Kenstream and Jambonet are services provided by the same monopoly corporation. With this in mind, Internet service providers do not have a real choice but have merely opted to cut costs in order to ensure the growth in users.

Apart from this lack of choice and the marginal reduction in prices to consumers of Internet services, the implicit costs of the cheaper link are quite high. For instance, the quality of the Jambonet link is unsatisfactory to both the consumers and the service providers. This is because the link is highly congested and therefore comparatively slow. It is also quite unreliable in the sense that there are frequent and regular breakdowns that disrupt business operations for the Internet service providers. Despite the specified speeds for which consumers pay, the link does not regularly provide the connections at the designated speeds. It therefore means that consumers pay for a lower quality of service than is actually delivered to them.

@ *VSAT*

The policy statement also did guarantee Telkom Kenya monopoly rights over the use of satellite technology in respect of Very Small Aperture Terminals (VSATs). VSAT use is restricted to private networks and for the conveyance of data within the country. These facilities are convenient in providing links for data transfer at certain speed limits. Given this fact, they would be especially appropriate for corporations and even internet service providers on account of the volume of data that they have to convey between branches their customers respectively. Being limited in terms of speed, VSAT technology is ideal for the Internet service providers as a tool for making limited linkage at competitive prices. Due to the restriction on the use of VSAT technology, the ability of enterprises to transfer business data is hindered. If the licensing of VSATs were permitted, then Telkom Kenya would face immediate competition that would force it to improve the quality of Internet service and reduce its costs substantially.

There is no evidence that the granting of licenses for the operation of VSATs generally would affect the revenues and profits of Telkom Kenya if it used its resources efficiently. The acquisition of VSATs would hardly impact on Telkom Kenya because it can still provide more reliable and cheaper connections. Telkom Kenya's position as a bulk purchaser of bandwidth and the use of the earth station facilities at its disposal would still make it a far cheaper bulk provider of the service. This means that irrespective of the quality of service that it does provide presently, Telkom Kenya is still performing far below its best capacity.

In recent days, government has expressed the intention to review the policy in respect of VSATs. Preliminary statements state that licenses will be issued to applicants. However, the criterion for the specific award and a formal ministerial statement stating the definite shift in policy is being awaited. While there is the hope that these issues will be clarified by the regulatory agency, that a clear statement has not been made itself shows the serious policy flux in the sector.

It is also evident through the Kenya gazette notice that a single company has already been awarded the relevant license. It will not do much good to the sector to merely shift from a monopoly for Telkom and permit a duopoly in the VSAT segment. Given the various advantages that Telkom Kenya already bears, it would be futile to expect that a single competitor would provide the competition for VSATs. The policy must be extended immediately to permit corporations that have critical need of this technology to acquire the licenses.

@ *Mobile Telephony*

When the ***Kenya Communications Act 1998*** and the sectoral policy statement were issued, there was only one mobile phone service provider in Kenya. Being owned by Telkom Kenya's predecessor, this corporation passed into the ownership of Telkom Kenya when the sectoral policy came into operation. It must be taken to mind that the policy specifically mentioned that competition in the entire sector will be allowed in accordance with a defined market structure. The Communications Commission of Kenya (CCK) issued licenses to Telkom Kenya as a switched services operator and to Safaricom Kenya Limited as the mobile telephone operator. Soon after these licenses were granted, the applications for the second cellular phone operator were called for sometime in November 1999. A total of six applications were reviewed with the intention of licensing one successful applicant.

Despite the payment of a $55 million license fee by each of the mobile phone operators, it is not visible that the money was reinvested in the sector in terms of refurbishing the infrastructure. Instead, the real investment in the sector is represented by the capital investment in the establishment of national networks and not by the licensing fees, as the latter was not directed exclusively into the telecommunications sector. This situation implies that whereas the number of operators has grown, the infrastructure expansion is limited to what investments the operators make and also that the money gained from issuing the licenses is utilised elsewhere.

While the ***Kenya Communications Act*** did expressly forbid the maintenance of either a duopoly or monopoly in the telecommunications sector, the introduction of a single competitor to Safaricom Kenya had some positive effects for consumers. Primarily, access to mobile telephony improved immediately with the second operator gaining a record number of new subscribers. Many Kenyans found the services comparatively affordable as the modest competition led to drastic reduction in prices as the late entrant sought to acquire market share. Network expansion in the country is fairly widespread with most urban areas in Kenya nearly completely covered by at least one of the mobile telephone service providers.

The fast growth that has taken place in the mobile telephony segment is more appreciable if presented in comparison to the number of fixed lines in Kenya. Fixed line connections in Kenya number about 320,000. Before the second mobile phone operator commenced service provision in the third quarter of 2000, there were far less than 50,000 lines. The figure has passed 320,000 lines within a year of Kencell Communications commencing services. This shows that the modest competition that the introduction of a second mobile operator provides has proved beneficial to the consumers in the short term.

While in this instance a duopolistic market structure has proved to be more beneficial to the consumer than the monopoly under Safaricom Kenya Limited, still this does not vindicate the duopoly. Notwithstanding the fact that mobile telephony services have become more affordable to Kenyans, the real gains lie with the two operators as they can only offer little competition to one another due to the fact that the demand for their services still exceeds their supply.

In comparison to the prevailing prices for the use of mobile telephone services, the current prices in Kenya are unjustifiably high. The fees structure for use of mobile telephones still presents a great hindrance to the use of the facility. So whereas the advantage with mobile telephony in Kenya is the promptness of connections, the required user fees are still quite high, rendering the service unaffordable.

Considering that the two mobile operators are compelled to make international telephone connections through Telkom Kenya, their costs for international phone connections make them unable to compete against the fixed line services provided by Telkom Kenya. With this in mind, the major revenue stream for both mobile phone operators is domestic traffic and this is also quite expensive compared to the going rates in the rest of the region and the world. Because they have fairly limited scope at present to expand their revenues, they are constrained in their ability to reduce the charges for mobile telephone calls hence the rates remain high. This inability to reduce the rates not only keeps the levels of use low but also limits the growth of the service. To its credit though, the duopolistic structure has also seen the introduction of additional services such as the Short Messaging Services (SMS) that the monopoly was either unwilling or unable to satisfactorily provide.

Mobile phone users also pay for the costs for connections between the two mobile operators. This is because interconnectivity between the two mobile phone service providers is provided by Telkom Kenya. This situation merely serves to raise the usage costs of mobile telephones and to discourage consumers from calling outside the network to which subscription has been made. Considering also that Safaricom Limited is at the same time a subsidiary of Telkom Kenya, the market structure is unfavourable for its competitor.

More specifically, the level of autonomy between Safaricom Kenya and Telkom Kenya comes to immediate question if the former must provide the exclusive interconnection between the mobile operators. In spite of the positive developments that the entry of the second mobile phone operator did present to the sector, this peculiar competition structure is not ideal for further sectoral development because it does not provide competitors with options for a service. At the same time, this arrangement is indicted because there are no technical limitations to the direct connection between the two operators in order to reduce the costs for consumers and increase service availability. In light of this state of affairs, it is possible that the very fast growth of mobile telephony was fuelled by both the price reductions for the service in addition to the inefficiency of the fixed line phone network in Kenya.

@ *Fixed Line Telephones*

The fixed line network in Kenya has been a monopoly since independence. Here too, Telkom Kenya retained the assets of its predecessor KPTC. The policy statement provided that Telkom Kenya would retain a five-year monopoly in Nairobi for the fixed line service. The rest of the country was divided up into regions largely corresponding to the administrative boundaries with the intention of licensing a single competitor for Telkom Kenya in each of these regions. Once again, this was a curious market structure as it preserved Telkom Kenya's monopoly in the most developed hence most lucrative telephone market in Kenya. At the same time, the Regional Telephone Operators were restricted to the designated regions and would have to connect among themselves and for international connections through Telkom Kenya.

To date, the successful applicants have neither commenced operations nor made payments for the licenses that they tendered for. It would appear that the applicants reconsidered the policy environment and opted to seek a better dispensation in order to be able to compete fairly. Most of the Regional Telephone Operators seem to think that Telkom Kenya's numerous monopolies would seriously undermine their ability to offer it meaningful competition and to attract any profits.

It is a valid conclusion that the defined market structure does not as much foster the growth of the sector as it seeks to preserve and perhaps enhance Telkom Kenya's market domination. Indeed as has been alluded to earlier, it is possible that the great enthusiasm shown by Kenyans for mobile telephony is in response to the increased inefficiency of fixed line telephone networks in Kenya. It should therefore be noted that Kenyans may in due course come to regard mobile telephones as an alternative to fixed line telephones with the consequence that the potential for the latter's growth may be affected.

If this should be proven to be the case, then the Regional Telephone Operators will be at a greater disadvantage. Because it is unlikely that many Kenyans could afford both the fixed and mobile telephone lines, this delay is probably aggravating the situation for the fixed line operators.

@ *Privatisation of Telkom Kenya*

Among the most significant proclamations of the sectoral policy statement is the expressed intention of privatising Telkom Kenya. The government chose to proceed with the privatisation of Telkom Kenya by identifying a strategic partner to whom a 49% stake of the company would be sold. The tendering and valuation of the corporation was conducted and an agreement reached but government sought to renegotiate the price. This reversal was because of the feeling that the price offered for the 49% stake was less than what a fair valuation would require. Government has sought to preserve the monopoly status of Telkom Kenya in the expectation that this would enhance the price of Telkom Kenya.

Following the Budget Speech for this year, (2000-2001), the Minister for Finance gave an undertaking that the privatisation of Telkom Kenya would definitely be concluded within the budget year. It is already evident that the exercise of renegotiation did not yield any increase in the price, as the party that had been accorded the opportunity to increase its bid did not do so. In this event, it is obvious that the decision to seek a review of the price has merely caused more anxiety for the initial winner who took to re-evaluating the corporation.

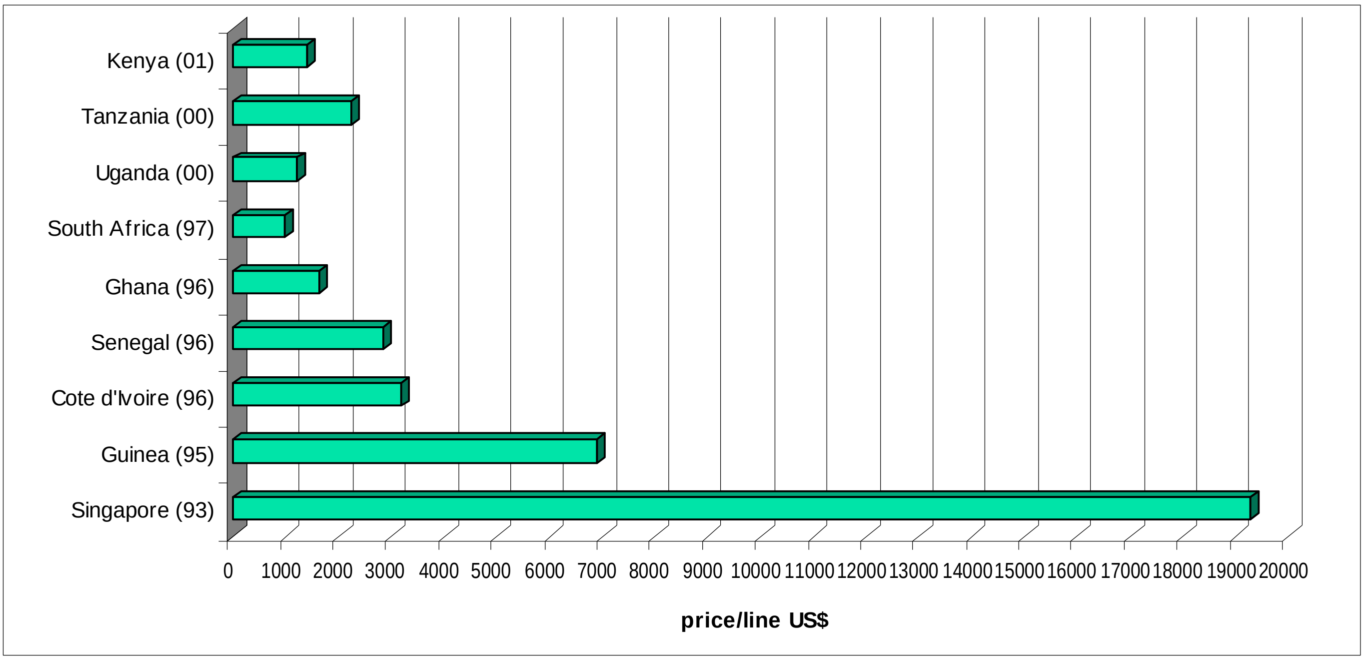
However, judging from the present state of affairs and barring further hitches, it is more

Table 1: Accessibility and coverage of telecommunications services in Kenya

	Supply/ Capita %	Accessibility/service Coverage	Satisfaction ratio%	Quality of Service	Choice of Suppliers	Affordability-Standing Charge/ GDP
Fixed	1.2	2% homes coverage	82	1.92 faults/ line/year *	None	33%
Cellular	1.2	10% geographic 50% population	No Data		2	0 or 60%
Internet	0.3	Main towns with a PoP	No Data		>20	86%

* International Telecommunications Union (ITU) 1998

Figure 1: Privatization value of Telecommunications corporations



Note the fall in price/line over time
*** Figures by the International Telecommunications Union (ITU) 1998**

Table 2: Market Structure in East Africa

	KENYA	UGANDA	TANZANIA
Fixed Local Access	Monopoly	Voice-Partial # Data-Competition	Voice-Partial/Monopoly Data-Competition
Fixed National Long Distance	Monopoly	Voice-Partial Data-Competition	Voice-Partial /Monopoly Data-Competition
International Services	Monopoly	Voice-Partial Data-Competition	Voice-Monopoly Data-Competition
VSAT	Monopoly	Competition	
Internet Backbone	Monopoly	Competition	
Internet Service Provision	Competition		
Paging	Competition		
Cellular	Partial	Partial	Competition
Customer Equipment, Terminals	Competition		

\# Partial—number of operators restricted based on non-technical reasons

Source: Summit Strategies (July 2001)

likely that the privatisation will proceed within the current fiscal year. The support for this assertion comes from the fact that the parties and advisors to the matter have set a date by which the handover shall occur and the payment for the 49% stake shall be made. In light of the progress that has occurred, the preliminary processes could be considered as sufficiently advanced to make the deal virtually concluded. While the consumers of telecommunications services wish that this could happen sooner, there is some consolation in the fact that the contentious issues of price seems at this point to have been agreed upon and with the implication that there is a higher probability of the formal handover to the purchaser.

Assuming that the transaction referred to takes place without further hitches, immediate concerns will arise as to the market structure that the new arrangement will create and its implications for consumers. Such apprehension is well founded because the conclusion of the handover of the 49% ownership of Telkom Kenya to a strategic partner will merely mean that the corporation will represent a coalition of government and private interest without addressing the critical issue of its monopoly situation. This would be an unsatisfactory position, as the policy environment will have elevated the interest of the jointly owned corporation beyond both the public and consumer interest. In the circumstances, there is no reason to expect that prices will reflect real costs of the delivery of services or that the efficiency will rise remarkably.

Outstanding Policy Issues

While it may be undeniable that the partial liberalization of the telecommunications sector has brought about gains for investors and the consumers of telecommunications services, it is becoming evident that these gains will be eroded unless the liberalization is taken to conclusion. Among the main tenets of the sectoral policy should be the unqualified position of competitive markets in all segments. The review of the segments of the sector merely show that the full transition in the sector is held back by the government's hesitation to proceed with further liberalisation especially in respect of full competition.

@ *Income barrier*

Whereas government recognises the centrality of the telecommunications sector in overall economic growth, this realisation must be further considered together with the fact that the incomes of Kenyans will in due course undermine further growth in the usage of telecommunications services within segments such as mobile telephony and the internet. Considering especially that the internet is gaining prominence as the mainstream telecommunications service, factors that hinder its growth such as Telkom Kenya's monopoly on the one hand and fiscal policy in terms of the taxes applicable to equipment such as computers and routers on the other will delay the level of use of the service. For illustrative purposes, it should be considered that while the competition in mobile telephony has led to very impressive reductions in price, the mobile telephony service is still an urban service that is unaffordable. Quite apart from the costs that relate to the regular use of the cheapest mobile phone service, the acquisition and connection charges for the cheapest gadget costs the equivalent of 20% of the country's GDP per capita. Impliedly therefore, the growth in the acquisition of more mobile phones among other telecommunications services will be almost entirely dependent on a significant rise in incomes. The ultimate barrier in the telecommunications services sector lies in not only the lack of competition but also on the incomes and the latter will depend on economic performance.

@ *Policy stability*

Regulatory functions in the telecommunications sector are not only complex but also controversy prone. This is often accounted for by the dynamism of the sector and the convergence of various industries into the telecommunications sector. However, the competent performance of any regulatory agency is aided by both a clear legal regime and policy statement. In addition, the two ought to be compatible hence mutually reinforcing. The fundamental contradictions that abound between the ***Kenya Communications Act*** and the sectoral policy statement mean that the regulatory functions have been hardly satisfactory to consumers and some market players. The Communications Commission of Kenya ought to be a neutral institution whose decisions should reflect a concern for consumer welfare and a balanced approach to all market players. In addition, the regulatory agency's response to issues before it should consist of less use of punitive sanctions and more of reward to innovative market players. Among the issues that the regulatory agency should appreciate even more are those related to Internet telephony, the critical need for liberalization of VSAT and overall competition and the close scrutiny of the conduct of market players to prevent anti-competitive practices.

@ *Human resource development*

Not only is a new policy dispensation required for the sector, the country must address itself to the question of building up the human resource capacity of Kenyans as a means of leveraging in the use of telecommunications. To achieve this, the budgetary allocations for education should recognise the urgent need to develop capacity in information and telecommunications technology. This human resource question must be responded to at the level of the information technology sectoral policy and also under the overall education strategy as the ability to fully exploit the potential of the sector is largely dependent on the quality of human resources. Concern for the training of Kenyans should be predicated on the realisation that the country should promptly apply technological leverage towards socio-economic development and poverty reduction.

In conclusion, the modest gains that have been recorded in the sector risk being compromised by the amendments bill dated the 25th June 2001. The import of this amendment would not only formalise the monopoly of Telkom Kenya by expunging ***Section 5(5)*** of the ***Kenya Communications Act***, but would go further to empower the regulatory agency to allow Telkom Kenya the monopoly in Nairobi for fixed lines up to 2004. Whatever may be the considered merits of these amendments, they undoubtedly represent bad law and policy. The reason being that whereas the perverse effects of the maintenance of a monopoly in the various segments of the telecommunications sector are becoming increasingly obvious, the amendment seems calculated to brace Telkom Kenya's monopoly situation without a plausible justification. It must be borne in mind that the quality of services throughout the telecommunications sector are determined right now by the unsatisfactory quality of service that Telkom Kenya offers.

This bill would fundamentally undermine the public's confidence in both the stability and prudence of policy, as one market player appears to be getting ever stronger. The only hope is that this point will be considered carefully during the legislative debates so that the possible effects on the public interest is brought to the fore. The enduring lesson is that there is need for a stable policy environment, an impartial regulator who should regulate market conduct and an enabling law that merely improves on the several provisions of the ***Kenya Communications Act*** of 1998 without formalising any monopoly.

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