



DETERMINATION
ON
DOMINANCE
IN SELECTED COMMUNICATIONS
MARKETS IN NIGERIA

MARCH 26, 2010

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Executive Summary

This Determination concludes a Consultation undertaken by the Nigerian Communications Commission (the “Commission”) to determine whether certain telecommunications licensees hold a position of market dominance in two important telecommunications markets, namely:

- the Mobile Telephone Services market; and
- the International Internet Connectivity market (including related international leased data line connectivity markets)

The Consultation was conducted pursuant to the Nigerian *Communications Act* 2003 (the “Communications Act”). It is the Commission’s responsibility under the Act to determine whether telecommunications licensees hold a position of market dominance, and, if so whether they are abusing that position by acting in a manner that substantially lessens competition.

The Commission has determined that no licensee currently holds a position of market dominance in the Mobile Telephone Services market, including the licensees with leading market shares, MTN, Celtel (Zain) and Glo mobile (Globacom). The Commission has also determined that no group of two or more licensees currently holds a position of joint or collective dominance in that market. The Commission has not found any conclusive evidence that any of the mobile licensees are engaging in conduct which has the purpose or effect of substantially lessening competition.

The International Internet Connectivity market has, in the past, been dominated by NITEL, as the only supplier of international submarine telecommunications cable services to Nigeria. However, no fewer than 4 new submarine cables are scheduled to commence service in Nigeria, two within the coming months and two more within the next two years. These new cables will have many times the capacity and will utilize newer technology than the SAT-3 cable used by NITEL. The Commission has not found conclusive evidence that NITEL is engaging in conduct which has the purpose or effect of substantially lessening competition. In fact, the available evidence indicates that the International Internet Connectivity market is becoming highly competitive, with new operators actively pursuing customers. The evidence also indicates that the market will become increasingly competitive on a prospective basis. Accordingly the Commission has determined that NITEL is not in a dominant position in the International Internet Connectivity market.

During this Consultation, a number of concerns were expressed by some licensees about allegedly anti-competitive or abusive behaviour on the part of some licensees with larger market shares. In this Determination, the Commission notes that its telecommunications regulatory framework provides specific remedies to deal with substantiated cases of anti-competitive conduct. In most cases, these remedies can be implemented without a finding of dominance.

The Commission has decided that its work on this dominance review, and in other areas of its regulatory mandate, would be facilitated significantly if the Commission and other stakeholders had access to more accurate, detailed and timely data on the workings of the relevant markets. Accordingly, the Commission intends to develop a new data collection and reporting system for the Nigerian telecommunications industry. The Commission will consult with stakeholders and provide further information on the development of this system in the near future.

1. Background

This Determination is made by the Nigerian Communications Commission (“NCC” or the “Commission”) pursuant to its responsibilities under the *Nigerian Communications Act, 2003* (the “*Communications Act*”).

The Determination concludes a Consultation that was formally initiated by the release of the Commission’s *Consultation Paper on Dominance in Selected Communications Markets* dated October 23, 2009 (the “Consultation Paper”).

The purpose of the Consultation was to assist the Commission in determining whether certain telecommunications service providers are in a position of market dominance in selected telecommunications industry markets in Nigeria within the meaning of the *Communications Act*.

It is the Commission’s responsibility under the *Communications Act* to determine whether telecommunications operators hold a position of dominance, and, if so whether they are abusing this position by acting in a manner that substantially lessens competition. Consequently, the Commission wished to examine whether selected telecommunications operators hold a position of dominance in certain telecommunications markets, and, if so, whether they are abusing their position of dominance by engaging in conduct that substantially lessens competition in those markets.

As it indicated in the Consultation Paper, the Commission is concerned that operators who may hold positions of dominance in telecommunications markets do not act in a manner that is detrimental to the interests of consumers, and in particular, do not act contrary to the *Communications Act*. The Consultation was undertaken as part of the Commission’s mission of supporting a market driven telecommunications industry.

This Consultation examined the potential existence of dominance in two key markets:

- Mobile Telephone Services; and
- International Internet Connectivity (and related leased data line connectivity)

The Consultation Paper invited submissions from the public, including all stakeholders in the Nigerian telecommunications industry and other segments of society, on the existence of dominance in certain telecommunications markets. The paper described the legal and regulatory framework for making determinations of dominance and discussed the current and prospective state of competition in the two key markets under review. The paper made some preliminary findings relating to the state of competition, the existence of market dominance, and potential anti-competitive conduct. In the paper, the Commission invited comments on its preliminary findings and analysis and on other issues related to the state of competition in the two key markets.

During the Consultation, the Commission received written comments, and in some cases written reply comments, from the following parties:

- Celtel Nigeria Ltd (Zain)
- Emerging Markets Telecommunication Services Ltd (EMTS)
- Gateway Telecoms Integrated Services Limited (Gateway)
- Glomobile Nigeria Ltd (Globacom)
- MTN Nigeria Communications Ltd (MTN)
- Nigerian Telecommunications Limited (NITEL)
- Smile Communications Nigeria Ltd. (Smile)
- Reliance Telecommunications Ltd. (ZOOMmobile)

The Commission also submitted written Interrogatories (questions) to certain licensees in order to obtain more information and seek clarification on issues related to the Consultation.

The Schedule to the *Competition Practice Regulations, 2007* (the “Regulations”) provides that where the Commission initiates a proceeding to determine whether conduct constitutes a substantial lessening of competition, or any conduct of a licensee is otherwise contrary to those Regulations, it shall deliver a written notice to the Licensee or any other person who is the subject of the proceeding. The Commission had not, at the time the Consultation Paper was issued, made determinations that any licensee held a dominant position in any market or had engaged in conduct that constituted a substantial lessening of competition or engaged in conduct that is otherwise contrary to the Regulations. However the Commission formally notified four licensees that it could make such determinations affecting their companies in connection with the Consultation, depending on the submissions made by them and other stakeholders.

These four companies, which were referred to as the “subject licensees”, were:

- MTN
- Zain
- Globacom
- NITEL

On the 17th of December, 2009, the Commission held a Public Consultation in the form of a public meeting at its head office in Abuja. The Public Consultation provided an opportunity to obtain further stakeholder comments and other information related to the issues in the Consultation. At the Public Consultation, the four subject licensees and other parties presented their comments and answered questions from Commission representatives and the Commission’s consultants.

At the Public Consultation, the Commission indicated that it would be open to receiving further written comments from stakeholders on any submissions made by parties at the Public Consultation. The Commission received such a further written submission from one stakeholder, MTN.

2. Legal and Regulatory Framework

The key provisions of the *Communications Act* and the Regulations promulgated under the Act that relate to this Consultation on market dominance are set out in the Appendix to the Consultation Paper.

The key provisions include the following:

- Under the *Communications Act*, the Commission is empowered to “determine, pronounce upon, administer, monitor and enforce compliance of all persons with competition laws and regulations . . . as it relates to the Nigerian communications market” (Sec. 90).
- The Commission has the responsibility to determine whether any telecommunications licensees have dominant market power and, if so, are acting in a way that results in any “substantial lessening of competition” in a market. Licensees are specifically prohibited under the *Communications Act* from engaging in behaviour that may result in such lessening of competition.
- The Commission has published the Regulations which establish criteria to assist in determining whether there is a “substantial lessening of competition” in one or more communications markets.

The Consultation Paper raised questions about the potential existence of dominance in the two specified telecommunications markets in Nigeria, based upon the criteria set out in the Regulations. The Paper also described types of conduct or practices that may result in a substantial lessening of competition by licensees that are found to be in a dominant position. In the Paper, the Commission invited comments related to potential dominance in each of the two specified market segments, and related to conduct or practices that may result in a substantial lessening of competition.

3. Identification of Relevant Markets

Section 20 of the *Competition Practices Regulations, 2007* requires the Commission, before examining potential dominance in telecommunications markets, to define the relevant markets. Section 20 sets out three types of criteria for determining these relevant markets: (a) the products and services and geographic scope of the market; (b) demand-side substitutability within the market; and (c) supply-side substitutability.

As described in the Consultation Paper, the Commission considered these criteria and defined two telecommunications markets which it sought to investigate to determine conditions of possible market dominance. These markets and the rationale for identifying them were described in the Consultation Paper as follows:

- (a) Mobile telephone services: This market includes the retail supply of wireless mobile telephony and related features by licensed operators who have been granted specific radio frequency authorizations subject to licence conditions unique to this market. This market is distinct from other (i.e., fixed) telephone service markets in a variety of ways, including service mobility, functions, and pricing. Although customers may utilize fixed-line and other services to place comparable voice telephone calls, such use is not sufficiently similar to the full package of mobile telephone services to qualify as effective demand-side substitution. In addition, fixed line services are not as widely available to the public in Nigeria as mobile services, and suppliers of fixed line or other alternatives cannot directly compete with mobile telephony on an equal basis. We therefore conclude that the mobile telephone service market is a unique and relevant market for purposes of evaluating potential dominance among its licensed operators. We note that, in some countries, distinctions have been made between the markets for mobile call origination and call termination, as well as for wholesale market access in the mobile sector. However, for purposes of this investigation, we conclude that the retail mobile market as a whole is appropriate for evaluating potential dominance.
- (b) International Internet Connectivity: This market consists of the connection of leased high-speed data circuits, including, predominantly, circuits connected to the Internet backbone. Such connections are essential for the provision of wholesale and retail Internet access to Nigerian customers, as the vast bulk of Internet traffic is international by nature, and hence must pass over such connections. This service market is thus a narrow but unique market providing a critical wholesale service to Internet Service Providers and other high-volume data users. There is no effective means for these users to obtain a comparable substitute to such connections, nor is there any way in which the service of global data connectivity can realistically be obtained, other than through such international leased data lines (by either cable or satellite technology), provided by operators licensed to serve that market in Nigeria. The market for international Internet connectivity provided by means of leased data circuits is, therefore, a second unique and relevant market for purposes of evaluating potential dominance.

The Consultation Paper invited comments on the identification of these two proposed relevant markets for purposes of the Commission's dominance investigation.

Several of the parties who filed comments raised questions and provided useful analysis regarding the definition of the relevant markets selected by the Commission for the purposes of this Consultation. These comments and questions are discussed in sections 4 and 5 of this Determination, which set out the Commission's consideration of the two selected markets.

In summary, the Commission's has responded to key comments raised by parties on the definition of the selected markets as follows:

- MTN, while agreeing that the Mobile Telephone Services market and the IIC market were “a reasonable focus of attention for policy making”, nevertheless requested more reasoning as to why these two markets stood out as priorities. The reasoning is quite straightforward. Given the limited penetration of fixed telephone lines in Nigeria, mobile telephony provides the most important communications link used by most of the Nigerian public. In addition, access to affordable Internet services is essential for the economic and social development of Nigeria. The Commission has received a significant number of complaints about problems with both the mobile telephony market and with the international connectivity component of Internet services. A number of these complaints specifically suggested there were problems with market dominance and that there were market practices that lessened competition or disadvantaged competitors. The Commission's own observations over the years also suggested that there may have been problems worth investigating. The Commission will continue to monitor competition in these and other important markets, and, where it deems it appropriate, select specific market segments for further investigation.
- Zain, Globacom, MTN, NITEL and ZOOMmobile raised the question whether CDMA services should be included in the same Mobile Telephone Services market as GSM services. The Commission has considered this question throughout the Consultation. As indicated in section 4 of this Determination, the Commission has taken into account the rapidly growing presence of CDMA services in determining that there is neither an individually dominant supplier nor collective dominance in that market.
- Several parties raised questions about the approach used to define the two selected markets. MTN questioned whether the Commission had used standard analytical tools to aid in defining markets in some other jurisdictions, such as the “hypothetical monopolist” test and the “small but significant non-transitory increase in price” (“SSNIP”) test. While the Commission considered the principles and approaches underlying these tests, it was not in a position to apply the tests rigorously due to data constraints in the Nigerian telecommunications market. The Commission found that a rigid application of these tests was not required to reach its determinations on dominance.
- MTN's submission suggests that the fixed and mobile telephony markets may be partially substitutable. For instance, it states “...in the context of the SSNIP test, MTN would hypothesise that many fixed line subscribers would switch to using their mobile phones to make calls in response to a 10% rise in the price of fixed calls.” The Commission considers that while some fixed users might switch to mobile services, the proper focus for analysis for this Consultation is the Mobile Telephone Services market. Given the very limited

availability of fixed line services to most Nigerians, fixed service is not a viable substitute for the vast majority of mobile telephony users. In any event, given its conclusions in this Determination, the Commission agrees with MTN that it "...does not see great merit in an extensive market definition exercise". For the same reason, the Commission does not consider it necessary to address MTN's comments regarding treatment of the retail and wholesale mobile telephony markets.

The following sections of this document provide the Commission's analyses and determinations regarding dominance in the two selected markets, based on the criteria and standards set forth in the Act and the Regulations.

4. Determination of Dominance in the Mobile Telephone Services Market

4.1. Market analysis

The Commission's preliminary review of the status of the mobile telephone market in Nigeria focused upon the five originally licensed GSM operators:

- MTN
- Zain
- Globacom
- EMTS
- Nigerian Mobile Telecommunications Ltd (MTEL)

In the Consultation Paper, the Commission noted that, "[a]s a *prima facie* observation, it would be unusual for the Commission to declare a condition of Significant Market Power or Dominance in a market containing five active operators which generally provide service on a nationwide basis. Nevertheless, there may be conditions in the Nigerian mobile telephony market that warrant investigation of potential anti-competitive practices and market dominance, and the impact of these conditions upon customers."

In conducting this review the Commission noted that, even with so many licensees, one or more market leaders could theoretically end up in a position of dominance. Specifically, as the largest licensee, MTN could potentially obtain a degree of control over the market that would allow it to make unilateral pricing decisions or implement practices that substantially lessen competition. Alternatively, the Commission recognized the possibility that a condition of "joint" or "collective" dominance could emerge among two or more operators, with the effect of limiting competitive market forces. Under Section 22 of the Regulations, the Commission is also empowered to evaluate this possibility.

Given these potential conditions, the Commission decided to investigate the possibility of either individual dominance in the mobile telephony market by MTN or joint dominance by MTN together with one or more other licensees.

In the period since the Commission initiated this proceeding, market conditions in the mobile telephone sector have continued to evolve significantly. As pointed out in several parties' comments, the licensing of new mobile operators utilizing CDMA technology has added to the competitiveness of the market. Market shares have continued to shift and most players have actively implemented various commercial strategies. Meanwhile, the advent of 3G services, expansion of Internet markets, and other industry developments continued to change the conditions under which this dominance review took place.

The analysis in the following sections addresses the Commission's preliminary review of the issues and data, the comments and evidence presented by the parties, and the Commission's findings and conclusions on the questions of individual and joint/collective dominance in the Mobile Telephone Services Market.

4.2. Individual Dominance Evaluation

The Commission's Preliminary Analysis

In its Consultation Paper, the Commission highlighted the criteria contained in the Regulations for evaluating the potential for individual dominance in a service market, for the purpose of examining MTN's market position. These criteria, and the Commission's initial observations regarding each, are summarized below:

Market Share: "the market share of the Licensee, determined by reference to revenues, numbers of subscribers or volumes of sales":

The Commission estimated that MTN's share of the Nigerian mobile telephony market was 41.2% as of June, 2009. According to the standard set in Section 21 of the Regulation, by achieving a market share threshold above 40%, the Commission shall presume MTN to be a dominant operator in this market, but this presumption may be rebutted by other factors. In this regard, a notable factor is that MTN's market share has decreased in recent years. It was greater than 50% in 2006. This suggests that MTN's potentially dominant position has been eroding, and the market may be reaching a degree of balanced competition, at least among the top three operators (MTN, Zain and Globacom).

This preliminary analysis does not take account of the role or market share of CDMA operators at the time, which were initially quite small but have grown since (see below).

Relative Size: "the overall size of the Licensee in comparison to competing Licensees, particularly any resulting economies of scale or scope that permit the larger Licensee to produce products or services at lower costs":

The Commission observed that, according to available information, MTN appeared to be significantly larger than its two main competitors, Zain and Globacom. MTN's financial statements showed a level of fixed assets that was nearly twice that of Zain

and almost three times as great as Globacom. At the same time, MTN employed about the same number, or even fewer, personnel than each of the other two major carriers, strongly suggesting that it achieved significant economies of scale in its operations.

Control of Essential Facilities: “control of network facilities or other infrastructure, access to which is required by competing Licensees and that cannot, for commercial or technical reasons, be duplicated by competing Licensees”:

The Commission noted that MTN does control a significant, but not necessarily dominant, portion of key network infrastructure in the national mobile telecommunications sector. Other operators have indicated that they have encountered difficulties of one kind or another in obtaining adequate and timely interconnection with MTN, or obtaining shared access to needed facilities such as towers and backbone network transmission. In areas where MTN may have the only viable infrastructure, such problems can imply the existence of barriers to effective competition.

Negotiating Position of Customers: “the absence of buying power or negotiating position by customers or consumers, including substantial barriers to switching service providers”:

The Commission observed that customers of mobile telephone operators, including MTN, can switch carriers quite easily. However, in the absence of number portability, there is still a significant disincentive for customers to switch mobile providers, as they must change their telephone number. Thus, while the theoretical barrier to full customer choice is low, in practice this limitation has likely inhibited much of MTN’s customer base from switching carriers. The implementation of mobile number portability for Nigeria should reduce this barrier substantially. The Commission also expressed concern that in the absence of roaming agreements, customers will be reluctant to purchase services that might not give them access to uninterrupted coverage.

Ease of Market Entry: “ease of market entry, and the extent to which actual or potential market entry protects against the exercise of market power such as raising prices”:

The Consultation Paper noted that market entry in the mobile telephone services market in Nigeria is not possible without a license from NCC, and that all GSM spectrum suitable for mobile operators in Nigeria have been licensed. It suggested that even among licensed operators, obtaining a license is not necessarily sufficient to ensure successful competitive entry. However, this initial analysis did not, as mentioned above, take into account the entry of new CDMA operators, which has in fact expanded the market further.

Rate of Technological Change: “the rate of technological or other change in the market, and related effects for market entry or the continuation of a dominant position”:

The Commission recognized that technological change in the mobile telephone market worldwide remains rapid and significant. In Nigeria, the most important new development is the licensing of 3G services to all three of the major operators (MTN, Globacom, and Zain as well as to a new entrant, Alheri). However, the market has been relatively slow to launch 3G services and it is unclear what impact this new technology will have upon the wider mobile telephone services market.

In addition to the key criteria set out in the Regulations, the Commission invited input from stakeholders on other issues that may be relevant to determining whether MTN or another mobile operator holds a dominant position in the mobile telephony market and whether such an operator has abused such a position.

Preliminary Findings: Based upon the initial available evidence and market information, the Commission’s preliminary view as expressed in the Consultation Paper was that MTN is *not* an individually dominant operator in the mobile telephone market, under the general criteria for such a determination. Despite holding a market share slightly above 40%, various factors, including the fact that MTN’s market share has been declining, suggests that competitive forces have been effectively working to check MTN’s market power. The measures that the Commission has previously taken to enhance competition have apparently succeeded in overcoming any potential market dominance by MTN.

On the other hand, the Commission observed that MTN’s relative size and control of network infrastructure remain issues, and it may yet be appropriate for the Commission to take action to prevent a lessening of competition by promoting greater access to shared infrastructure and completing the implementation of number portability to strengthen customer choice.

The Commission asked parties for comments on these preliminary findings, as well as on the various other issues and analysis presented on this topic.

4.3. Comments by the Parties on Individual Dominance

A number of licensees and other parties provided extensive comments and evidence regarding the various issues raised in this section, through both written submissions and at the Commission’s Public Consultation. Highlights of these comments are presented here.

MTN

Given the focus on its potential dominance, MTN submitted extensive comments on the question of its possible market dominance. In summary, MTN argues that it is not in a position of dominance, that the mobile telephony market in Nigeria is highly competitive, and that it is increasingly so. MTN submits that its strong competitive position is due to its successful deployment of quality services and effective marketing campaigns. It states that

it faces challenges from the other GSM as well as CDMA operators at all times. According to MTN, the policy focus ought to be on encouraging infrastructure investment: essential-facilities-style rules ought to be confined to essential facilities.

The comments and evidence cited by MTN in support of its position include the following:

- Market share: MTN stated that it entered the market at the same time as two other licensees. Globacom entered 2 years later and had to compete, yet the CAGR in subscriber market share, from 2005-2009, according to MTN is: Zain 49%, MTN 38%, Globacom 36%, CDMA 101%. According to two different independent estimates, MTN's subscriber market share at end 2009 was 39% (based on Pyramid data) or 33.9% (based on Detecon data). Regardless, in MTN's view market share does not determine dominance, particularly given MTN's falling market share level. Pyramid describes a "fragmented and competitive" market; with an aggregate HHI below that of other African economies.
- Relative size: MTN commented that, like other international groups (Zain, EMTS, to some extent Globacom), MTN entered by risking private capital, not as a state incumbent. Further, MTN points out that EMTS and, particularly, the CDMA players have been growing very quickly.
- Control of essential facilities: MTN stated that both Zain and Globacom have substantial infrastructure, that interconnection is already regulated, that Helios is already rolling out collocation facilities and that MTN, which does offer collocation at many sites, did not have any preferential access in building its facilities. MTN further claimed that assertions that other operators have had difficulty in interconnecting with MTN or in sharing its facilities are unproven. MTN's view is that regulation of collocation would create disincentives for network investment and should be avoided.
- Customers' negotiating positions: MTN argued that it faces significant customer churn and that options to its service are widely known. The coming introduction of number portability will only intensify vigorous competition. MTN claimed that there has been no demand for national roaming, which may create disincentives for investment and network rollout if implemented.
- Ease of market entry: Contrary to the suggestion of the Consultation Paper, MTN asserts that much spectrum is left for additional competitive market entry, for example in the CDMA and WiMAX space. Also, the "digital dividend" that will result from the shift of broadcasting from analog to digital frequencies will unleash even more potential spectrum availability. In any case, MTN commented, there are already 5 GSM and other CDMA providers, so substantial entry has already occurred.
- Technological change: MTN asserts that technological change, including the digital dividend, will reduce market concentration.

In its reply submission, MTN responded to several claims made by other parties, particularly some of its competitors. Among MTN's points were:

- Allegations of anti-competitive conduct: MTN denied any implication that it has engaged in any anti-competitive conduct or restricted competitors' ability to interconnect. MTN pointed out that no official proceedings or complaints on such allegations have taken place. The company further stated that it has entered into numerous infrastructure sharing agreements, contrary to some assertions.
- Competitiveness of interconnect rates: MTN stated its objection to suggestions that interconnect rates should be set asymmetrically or established based on benchmarks.
- On-Net/Off-Net price differentiation: MTN rejected the claim that differential on-net and off-net prices are inherently anti-competitive, but rather asserted that such pricing reflects actual differences in the operators' cost structures.
- Asymmetric regulation: MTN opposed calls for asymmetric regulatory treatment of mobile licensees, specifically favorable treatment of smaller or newer operators, claiming that this would encourage inefficiency. In any event, MTN pointed out that several newer entrants have performed successfully, in part due to inherent advantages already available to them, and submitted that no further incentives are necessary to promote market growth and competition.
- Infrastructure sharing: MTN reiterated its position that ex ante mandated sharing of infrastructure would inhibit market investment, and in any event the Commission's Collocation/Infrastructure Sharing (C/IS) Guidelines are sufficient to promote this objective.

At the Commission's public hearing on this matter, MTN presented further evidence in support of its positions. MTN claimed, among other points, that its average revenue per minute (ARPM) has been declining, and that real mobile service prices have also declined relative to national inflation.

ZAIN

In general, Zain submitted that MTN's access to capital, equipment and technology have helped it, but do not translate to dominance. In response to the specific dominance criteria, Zain expressed the following views:

- Market share: According to Zain, MTN, and MTN, Zain and Globacom collectively, have steadily lost market share. In any event, their view is that market share does not determine dominance, and data change rapidly.

- Relative size: Zain asserted that size is not very relevant to dominance—it is a secondary characteristic.
- Control of essential facilities: According to Zain, there is no dominant control of essential facilities. Collocation providers have been very involved with cell sites. Backbone networks are provided by the big three to other providers, and by other providers to the big three (Phase 3, Sub Urban, 21st Century). Zain suggested that there were many spectrum licensees, including the CDMA licensees. It also pointed out that interconnection is already regulated.
- Customers' negotiating positions: Zain noted that the Nigerian market is predominantly prepaid, that phones are generally not SIM-locked, and that churn rates are very high. In Zain's opinion, the absence of number portability and roaming has therefore not inhibited customer choice.
- Ease of market entry: Zain pointed out that there are 11 mobile telephony licensees including CDMA, suggesting there are few barriers to market entry.
- Technological change: In Zain's view, Nigeria's 3G take-up has not been slower than elsewhere. It also submitted that CDMA providers have an edge over GSM providers and new providers have an edge over older ones.

During the Commission's public hearing, Zain also stated that prices for retail Mobile Telephone Services in Nigeria have been declining, even while prices for all other elements of the economy have been rising with inflation.

GLOBACOM

Globacom's comments were largely confined to the Mobile Telephone Services market. Globacom submitted that MTN should not be found to be dominant, particularly since infrastructure-sharing that would result from such a finding would dampen investment in new infrastructure. However, Globacom submitted that number portability is needed and interconnection rates ought to be regulated to reduce the price of "off-net" services. Globacom's off-net price is lower than any other operator and it is a net payer to MTN and Zain. Globacom also asserts that tariffs have come down significantly.

Specific comments and evidence submitted by Globacom in support of its positions include the following:

- Market share: Globacom claimed that MTN's dominant position is eroding and that the relaunch of MTEL will hasten this process.
- Relative size: In Globacom's opinion, MTN's relatively low number of employees is not an indication of economies of scale, but of contract staffing and outsourcing.

- Control of essential facilities: Globacom asserted that there should be no need to declare an operator dominant before enforcing existing regulations concerning collocation and shared facilities.
- Customers' negotiating positions: Globacom submitted that lack of number portability does prevent customers from switching carriers and that NCC ought to launch number portability between all PSTN networks (GSM, CDMA, and landline).
- Ease of market entry: Globacom claimed that increased mobile market entry hurt MTN, as MTN's falling market share has demonstrated, provided collocation, interconnection, and facilities-sharing are available. Globacom stated that there are 5 GSM and 5 CDMA players, confirming NCC's pro-active approach.
- Technological change: Globacom stated that 3G is expensive and has not helped any particular operator. It suggested that NCC ought to consider funding 3G upgrades. It will take many years in Nigeria for a sizeable number of customers to upgrade to 3G. In addition, Globacom introduced many new services for the first time in Nigeria.

NITEL

NITEL stated that it does not believe that MTN is individually dominant in the Mobile Telephone Services market. To enhance competition, NITEL advocates regulated collocation, improved arbitration procedures, and number portability.

Other specific NITEL submissions include:

- Market share: NITEL claimed that MTN is dominant based on market share.
- Relative size: In NITEL's view, economies of scale are not a factor in determining dominance, and interconnection regulation has "taken care of this" concern.
- Control of essential facilities: NITEL advocated that NCC must regulate the price for collocation. Also, NITEL suggested that faster arbitration procedures must be established. It further noted that newly-licensed local exchange carriers can partner to lower costs.
- Customers' negotiating positions: NITEL stated that number portability will reduce switching barriers substantially.
- Ease of market entry: NITEL asserted that restrictions on market entry enhance capability and efficiency in the market. The current and anticipated competitors will be sufficient to ensure a robust, competitive market, according to NITEL.
- Technological change: NITEL observed that 3G has had little effect to date, and expressed concern that MTN might dominate this segment as it will be urban-based.

SMILE

Smile Communications Nigeria Ltd., a new wireless entrant, argued that MTN is dominant in the Mobile Telephone Services market, as demonstrated by market share, relative size, and vertical integration, and that interconnection and access to essential facilities should be mandated. It further submitted that vertical integration allows MTN to use its market power to competitive advantage, such as through cross-subsidization between interconnection and other services.

Smile also proposed additional criteria from European Commission guidelines for identifying a dominant market position, including: Lack of transparency, stagnant or moderate demand growth, low elasticity of demand, homogeneous product, absence of excess capacity, absence of retaliatory mechanisms, lack of competition, reduced scope for price competition. (Source: EC SMP Guidelines)

Additional specific positions advocated by Smile include:

- **Market share:** According to Smile, MTN's market share was down to 40.9% in June 2008, and went back up to 46.2% in June 2009, so it is not a one-way progression downward.
- **Relative size:** Smile claimed that access to capital is a significant size indicator, and that MTN has such access through its membership in a significant pan-African group with deep pockets. A highly-developed distribution and sales network is a second size indicator relevant to market power.
- **Control of essential facilities:** Smile asserted that MTN is dominant and withholds access to interconnection and towers, impairing fair and robust competition. Smile advocated that NCC must address this under the Interconnection Regulations, using a fast benchmarking approach.
- **Ease of market entry:** In Smile's view, barriers to market entry impede competition and benefit incumbents.

ZOOMmobile

ZOOMmobile's remarks were largely confined to the Mobile Telephone Services market. ZOOMmobile, a CDMA player, argued that the regulatory framework for CDMA and GSM entrants had not been symmetrical and that, as a result, CDMA players have been placed at a disadvantage. ZOOMmobile advocated price regulation to address predatory retail and discriminatory wholesale pricing.

Specific comments and evidence submitted by ZOOMmobile in support of its position include the following:

- Relative size: According to ZOOMmobile, bigger networks, like MTN's, benefit disproportionately from high termination fees from off-net callers. Internal economies of scale make further discounting possible, such as MTN's free midnight calls.
- Control of essential facilities: In ZOOMmobile's view, MTN has first-mover advantage and control of essential infrastructure, like backbone and fibre, that is prohibitively expensive to replicate. There is evidence that MTN prices inputs higher than it implicitly charges itself for internal use of these facilities.
- Customers' negotiating positions: ZOOMmobile asserted that number portability is essential, but may be of limited help to CDMA competitors whose handsets do not use SIM cards and are not readily reconfigurable to a new network.
- Ease of market entry: The company claimed that restrictions on market entry help the existing firms. Pricing adjustments to wholesale services are needed for a level playing field.
- Technological change: ZOOMmobile claimed that the granting of 3G licenses to GSM operators has erased whatever comparative advantage CDMA may have had, further shoring up GSM providers' market power as compared to that of CDMA players.

EMTS

EMTS submitted that artificially high pricing of leased circuits, refusal to collocate on reasonable terms, predatory pricing of off-net calls and termination rights, and unwillingness to support number portability are problems across the market for small operators. EMTS urged the NCC to address what, in EMTS' view, are anticompetitive practices. EMTS similarly recommended that there be regulated collocation by March 2010, a 10% margin cap between on-net and off-net pricing, number portability by October 2010, and cost-based termination rates.

Further specific submissions include:

- Market share: EMTS argued that MTN remains dominant notwithstanding market share loss: for instance, its EBITDA margin is much higher than that of its competitors.
- Relative size: According to EMTS, MTN, Globacom and Zain have achieved economies of scale, giving them significant cost advantages.
- Control of essential facilities: EMTS further asserted that MTN, Globacom, and Zain's early entry has let them build, own and control network infrastructure all over the country. EMTS' requests for access or sharing are refused or granted only on onerous terms and conditions, according to EMTS.

- Customers' negotiating positions: EMTS believed that number portability will remove costs that restrict changing service providers and ought to be implemented, particularly given absence of fixed lines which makes one's number more important.

LM ERICSSON NIGERIA, LTD. (Ericsson)

Ericsson raised general concerns about the Commission's approach to its dominance review and the interpretation of its mandate, and argued against any finding of dominance or especially abuse of dominance. Its specific positions included:

- Market share: In Ericsson's view, the idea that there should be "balanced" competition is contrary to competitive market goals; market share for MTN is due to pent up telecommunications demand, not "less than legal" means.
- Relative size: Ericsson asserted that there is a need to determine the reasons for MTN's size. Size does not necessarily determine dominance; it could result from timing of license and operational efficiencies.
- Negotiating position of customers: Ericsson claimed that there is no evidence that lack of number portability inhibits customers from switching carriers, and churn rates have been increasing.
- Ease of market entry: Ericsson asserted that NCC is responsible for licensing, and can increase the number of licensees; MTN should not be "held culpable" for limitations on licenses.
- Technological change: Ericsson stated that 3G should not be viewed separately from the 2G market.
- Level of MTN's revenues: In Ericsson's view, revenues are only relevant if MTN has earned supra-normal profits. All operators have access to the same technologies and financial resources.

4.4. Commission Findings and Conclusions on Individual Dominance

This review has taken place over an extended period of time, fortuitously making available considerable evidence as to the dynamic and competitive status of this market. As many submissions have rightly pointed out, during the past two years the competitive structure of the market has changed significantly due to the entry and growth of CDMA operators, which were only just launching at the outset of this review. MTN's overall market share, while subject to differing analyses, has clearly declined while those of the CDMA operators in particular have increased. Even if MTN technically remains on the edge of the 40% threshold which would permit a presumption of dominance, it is clear that this is a tenuous position at best, and more likely to decline than to increase in the near future.

One of the most significant indicators of market competition – and conversely, indicators of implicit anti-competitive activity – is pricing trends in the market. On this point, little hard

evidence was submitted by any of the licensees as to near and medium term pricing indices or price movements. However, there has been no evidence that Mobile Telephone Services prices have been increasing or have been artificially high. Such evidence as is available certainly indicates that there is robust activity among competitors to introduce alternative pricing options, promotions, discounts, and special arrangements, including differential off-net and on-net prices and experimental tariff deals. It seems clear from these trends that all market participants are actively seeking to win and retain customers, at least in part through aggressive pricing strategies. This activity is inconsistent with any finding of market dominance and especially abuse of dominance.

At the same time, the Commission recognizes that the assertions made by some parties regarding difficulties obtaining collocation, infrastructure sharing, and interconnection with MTN are potential concerns. However, MTN has refuted assertions that it has inhibited competitors from gaining access to collocation or shared infrastructure. Nevertheless, if some operators have encountered difficulties in this regard, the Commission takes such concerns seriously. The Commission notes, however, that the proper vehicles to address such disputes have been established through the Interconnect Regulations, Collocation and Sharing Guidelines (see section 6 of this Determination for further comments).

The evidence of licensees' difficulties in the foregoing areas does not rise to the level of demonstrating dominance by MTN. Nor, in the Commission's view, was any conclusive evidence provided during this dominance review that MTN (or any of the other mobile licensees) are engaging in conduct which has the purpose or effect of substantially lessening competition.

The Commission acknowledges the specific concerns raised by several parties relating to the need for mobile number portability, and the anticipated positive impacts that this policy will have on the competitive status of the mobile telephone market. While the Commission does not conclude that the absence of mobile number portability, to date, has led to a dominant position for MTN, the Commission recognizes the urgency attached to implementing number portability and the benefits that it will bring to both consumers and licensed operators.

The Commission recognizes that the Mobile Telephone Services market in Nigeria is still a new and growing market, and its future evolution remains highly uncertain. As new technologies, changing customer demand, and unstable economic conditions continue to have dramatic impacts on this sector, the medium and longer term status of competition cannot be predicted with great confidence. However, the trends in this market to date, and even during the period of this consultation, have clearly demonstrated the effectiveness of the Commission's pro-competition policies and regulatory practices.

While it is possible that MTN might have been in a temporary dominant position as the market was beginning to develop, that position has eroded as competitive forces have become increasingly strong. Therefore, the Commission concludes that there is no basis at this time to declare that MTN is a dominant operator in this market. The Commission will continue to monitor developments and to adopt pro-competitive measures wherever necessary in the future.

However, based upon the Commission's preliminary analysis and the evidence and comments subsequently received through the consultation process, the Commission affirms its initial finding that MTN is *not* at this time in a dominant position in the Mobile Telephone Services market in Nigeria.

4.5. Joint/Collective Dominance Evaluation

The Commission's Preliminary Analysis

In the Consultation Paper, the Commission presented the prevailing theoretical and policy framework developed in the literature and precedents from the European Union as to the evaluation of potential joint or collective dominance in mobile telecommunications markets. In this discussion, the paper summarized the main factors that support the emergence of collective dominance in a market, namely:

- (a) Entry barriers
- (b) Frequent interaction among firms
- (c) Low levels of innovation
- (d) Few market participants
- (e) Symmetry among providers
- (f) Structural links and cooperation agreements among firms
- (g) Fast demand growth

The Commission reviewed and requested comments on how each of these factors might come into play in the present mobile telephone market in Nigeria. Specifically, the Commission sought to explore the possibility of collective dominance conditions among the three large operators – MTN, Globacom and Zain – and whether they have conducted their business in such a way as to lessen competition from the smaller licensees. Among the key observations that the Commission noted in its preliminary analysis were:

- Entry barriers are fundamentally high in the mobile telephone market.
- By necessity, there is frequent interaction among all firms in the cellular mobile industry.
- While there is in general a high degree of innovation in the mobile industry, 3G services have yet to take off in Nigeria, and innovation within the 2G market has been limited.
- There are few mobile operators, although again the presence of the CDMA licensees increases this number.
- There is considerable symmetry among operators, even taking account of the differences between GSM and CDMA.
- There are necessary structural links among operators, required for interconnection.

- Demand growth has been very high in the Nigeria mobile telephone market.
- Combined, the three main firms currently control over 98% of the market, as the two smaller operators are limited to less than 1% each. However, as noted above, at the time this assessment did not include the new CDMA entrants.
- Other factors that apply to individual dominance, such as operator size and control of infrastructure, also generally apply to the three largest operators collectively.

Preliminary findings: In the Consultation Paper, the Commission stated that on the basis of the initially available evidence, the Commission was not prepared to take a firm position as to the presence or absence of collective dominance among the three major mobile telephone operators in Nigeria. The Commission found that there were at least some significant indications which could suggest collective dominance and tacit collusion may exist among the three operators, with the effect of constraining competitive price reductions, diminishing overall industry quality of service, and inhibiting the growth of further competition from other licensees. However, such conditions may be due to other factors that do not rise to the level of collective dominance and tacit abuse of that dominance. The Commission therefore invited parties to provide evidence in support of or opposition to a finding of collective dominance, based upon the factors outlined.

4.6. Comments by the Parties on Joint/Collective Dominance

The positions of the parties on the questions involving potential collective dominance essentially mirrored their views on individual dominance. In summary, opponents of a finding of collective dominance included MTN, Zain, and Globacom, as well as NITEL. Their main arguments included:

- Collectively, the three largest operators have steadily lost market share recently, particularly with the emergence of the CDMA carriers;
- There are now 11 licensees in the market, including CDMA, as well as Unified Access Service Licenses that can offer mobile service, indicating a robust level of competition with little opportunity for tacit collusion; the newer operators may even have an advantage over established GSM providers;
- Vigorous competition is leading to innovation, lower prices, and network investment;
- Tariffs have come down significantly and there are a variety of choices: e.g., Globacom's per-second billing pulse, 1-naira SIM, 40% friends and family discount, etc. Average revenue per minute is also declining.

On the other hand, Smile, ZOOMmobile and EMTS submitted that joint dominance may be present, specifically arguing that:

- The combined market share, revenues, and infrastructure of the "Big Three" indicate that they are collectively dominant;

- Artificially high pricing of leased circuits, refusal to collocate on reasonable terms, predatory pricing of off-net calls and termination rights, and unwillingness to support number portability are symptoms of joint dominance that impairs smaller operators' ability to compete;
- Various other factors, such as those cited by the European Commission, may also indicate joint dominance, for example lack of transparency, low elasticity of demand, absence of excess capacity, and absence of retaliatory mechanisms for smaller operators;
- The regulatory framework for CDMA and GSM entrants had not been symmetrical and as a result, CDMA players had been placed at a disadvantage.

4.7. Commission Findings and Conclusions on Joint/Collective Dominance

As indicated in the Consultation Paper, the concepts and issues surrounding collective dominance in telecommunications markets are complex and relatively new, and the evidentiary factors necessary to examine to reach a conclusion of collective dominance are not clearly defined. Many parties seem to have misinterpreted the basic proposition surrounding collective dominance. They imply that oligopolistic practices and direct, willful conspiracy and collusion among operators would be necessary for such dominance to be established.

However, this is not the sole thrust of the concept of collective dominance. Tacit collusion may occur without conscious strategic decisions among market players. The concerns raised by the Commission related not only to express collusion, but to whether the evolution of the market, with each player separately looking out for its own interest, could result in tacit (unintended) collusion and thus joint dominance.

Evidence of joint dominance could exist without any direct evidence of deliberate anti-competitive behavior by any one or more players if market conditions led the leading firms to make certain business decisions that had the effect of diminishing the opportunities of smaller competitors, possibly to the point of driving them out of business. Such decisions would not necessarily be illegal by prevailing competition law standards in many countries, nor contrary to acceptable business practices. But if market conditions led to collective, non-coordinated behaviour by some operators which lessened the competitive viability of smaller operators, it might be possible to conclude that there is a degree of tacit collusion due to joint dominance.

As discussed in the Consultation Paper, there are a variety of factors that can lead to collective dominance, and various types of evidence in the marketplace that can verify or refute a presumption of such joint dominance. Such evidence might include lack of price movement, poor quality service, little differentiation in service offerings, and difficulties sharing infrastructure or cooperating between groups of operators.

In this consultation process, however, the Commission received considerable evidence and argument that the mobile telephone market is indeed robustly competitive. In particular,

there was a general recognition that the newer CDMA operators have established a strong foothold in the market, thereby undercutting suggestions that the three larger GSM operators are jointly dominant.

As stated in the Consultation Paper, the most direct way to determine the possibility of collective dominance is to observe the market behavior of the accused firms. The Commission would expect to find such trends as uniform and increasing tariffs for Mobile Telephone Services, leading to comparable revenue-per-minute for all companies. The Commission would expect declining quality of service throughout the networks as a result of shared decision-making not to invest in costly network improvements. The Commission might also expect to find evidence that barriers erected to prevent competitors from utilizing and sharing active network support infrastructure resulted in slow build out, lack of service differentiation, and piecemeal growth.

Although some parties presented specific allegations concerning some of these conditions, the record in the proceeding is actually dominated by evidence of energetically competitive actions among the firms with the leading market shares. These activities reflect the rapidly shifting market share picture, particularly among the CDMA operators, which leaves considerable doubt as to the existence of any significant market power among the major GSM players. The Commission has received evidence of a variety of recent promotional and innovative pricing options being offered to customers by many of the operators. There were various indications of creative energy motivated by competitive pressures. The evidence presented concerning customer churn rates, responses to promotions, take-up of the new operators, as well as the widespread practice of owning multiple phones and SIM cards, all suggest an increasingly competitive environment.

It is true that the three largest GSM licensees have the strongest market positions, and it is possible that some smaller licensees will not be able to maintain a sustainable foothold as the economy and the industry continue to evolve. But these facts do not, in themselves, provide conclusive evidence of tacit collusion among the more successful licensees. As the larger licensees and even their competitors point out, these positions tend to arise from a combination of natural advantages, early mover positions, efficient operations, and effective marketing.

There are certainly competitive issues in the Mobile Telephone Services market that merit ongoing regulatory monitoring and that could produce anti-competitive results. As discussed in section 6 of this Determination, however, there are other regulatory remedies to deal with conduct that is demonstrably anti-competitive. For example, complaints of difficulty in obtaining collocation, infrastructure sharing or interconnection may be made to the Commission via appropriate specific regulatory measures, such as the Interconnect Regulations and the Collocation/Infrastructure Sharing Guidelines.

The Commission will also continue to monitor developments in this sector to ensure that a competitive environment continues to exist. However, on the basis of the evidence made available in this consultation process, the Commission determines that there is currently no collective or joint dominance in the Mobile Telephone Services market in Nigeria at this time.

Conclusion

The Commission has determined, based on the available evidence and submissions of stakeholders, that no licensee currently holds a position of market dominance in the Mobile Telephone Services market. The Commission has also determined that no group of two or more licensees currently holds a position of joint or collective dominance in that market. The Commission has not found conclusive evidence that any of the mobile licensees are engaging in conduct which has the purpose or effect of substantially lessening competition.

5. Determination of Dominance in the International Internet Connectivity Market

This section considers the issues related to market dominance in the market for international Internet connectivity (IIC). As described in the Consultation Paper, IIC is primarily provided in Nigeria by means of submarine telecommunications cable circuits and to a much lesser extent by satellite and terrestrial circuits. The same international circuits provide connectivity for both Internet services and other telecommunications data services. However, IIC is by far the main service currently provided over such international circuits. Therefore, as in the Consultation Paper, this Determination refers to the entire international data circuit connectivity market as the IIC market.

5.1. Market analysis

As described in the Consultation Paper, and corroborated by the comments of parties to this Consultation, the Nigerian IIC market is undergoing a major transformation. From 2001 until last year, NITEL was the monopoly provider of IIC via optic fibre submarine cable. NITEL provided this service via the SAT-3/WASC cable in which it has an 8.39% shareholding. This cable has approximately 340 Gigabits per second or 0.34 Terabits/second capacity to serve its various landing points between South Africa and Europe.

During the past few years Nigerian operators added some limited extra capacity of their own, mostly via satellite links and limited terrestrial links. Operators, such as MTN, have also enhanced their national backbone capacity, in some cases, substantially.

Of far more significance, however, no fewer than four major new optic fibre submarine cables are scheduled to enter service in the near future. The major cables planned to go into service over the next two years are:

- The GLO-1 (Globacom) cable, scheduled to be operational from the second quarter of 2010, offering 2.5 Terabit/s capacity to West Africa and Europe.
- The Main One cable, also scheduled to be operational from the second quarter of 2010, to offer additional 1.92 Terabit/s capacity to West Africa and Europe.

- The WACS cable, with MTN as one of its main shareholders, scheduled to be operational starting in the second quarter of 2011, to offer 5.1 Terabits/s of capacity to Europe and various West African points, down to South Africa.
- The ACE cable, led by France Telecom-Orange, scheduled to become operational in the second quarter of 2012 with a capacity of 1.92 Terabits/s to connect Europe with over 20 countries in West Africa down to South Africa.

In addition, the satellite systems and terrestrial telecommunications links serving Nigeria have been and are continuing to be upgraded.

5.2. Individual Dominance Evaluation

The Commission's Preliminary Analysis and Findings

The Commission first considered whether there is individual dominance in the IIC market, and then considered the prospect of joint or collective dominance in that market. There is some overlap in the analysis in this and the next section, dealing with individual and joint/collective dominance. The Commission has used the same approaches for the analysis of individual dominance as it did for the Mobile Telephone Services market (relying on the criteria set out in the Regulation). The key criteria, and the Commission's preliminary observations regarding each, are summarized below:

Criteria for determining individual dominance in the IIC backbone market

- (a) "the market share of the Licensee, determined by reference to revenues, numbers of subscribers or volumes of sales":

The Consultation Paper noted that the market share of NITEL will likely be reduced dramatically and rapidly as the four new high-capacity cables come into service. In the past, NITEL enjoyed a position as the dominant provider of IIC by virtue of being the sole provider of IIC via a fibre submarine cable. The degree of dominance that NITEL has enjoyed in the past has already been eroded somewhat since 2003. Over the past years, newer operators responded to the high pricing and the relatively low quality of service on the SAT-3/WASC by building their own backbone infrastructure.

As the Commission has noted, however, NITEL's market position will be challenged far more significantly by the landing of new higher-capacity fibre optic cables in Nigeria: in the next few months by the GLO-1 and Main One cables, and then by two other large capacity cables that will become operational over the coming two years.

As a near-bottleneck provider of IIC service utilizing its exclusive access to the only Nigerian submarine cable, NITEL appeared to have been in a position of IIC market dominance since 2001. However, since the market is changing dramatically, the Commission considered that a detailed assessment of the criteria for individual

dominance (based on revenues, numbers, subscribers or volume of sales) of the market share of NITEL was difficult to apply, particularly on a prospective basis.

- (b) “the overall size of the Licensee in comparison to competing Licensees, particularly any resulting economies of scale or scope that permit the larger Licensee to produce products or services at lower costs”:

In its Consultation Paper, the Commission indicated that the relative size of NITEL’s presence in the IIC market has been large, compared to other players. In addition, NITEL retains sizable shares of related telecommunications markets, especially through its SAT-3 IIC and MTEL businesses (the latter then having 1.2 million mobile subscribers).

However, the Commission noted that Globacom, through its fully owned GLO-1 cable, could quickly take a significant market share in the IIC market from NITEL. Globacom also has large scale operations in Nigeria. The market share that Globacom could take may be greater than envisaged at the inception of the GLO-1 project, given NITEL’s current operational difficulties and privatization distractions. Similarly, the Main One cable will be in a position to take market share quickly. Both of the GLO-1 and Main One cables are scheduled to become operational over the next few months. MTN, which is one of the main shareholders in the WACS cable, scheduled to be operational in the second quarter of 2011, also has large scale operations in Nigeria.

- (c) “control of network facilities or other infrastructure, access to which is required by competing Licensees and that cannot, for commercial or technical reasons, be duplicated by competing Licensees”

As the Commission noted, to date, the main infrastructure providing the IIC backbone, namely the SAT-3/WASC cable has been controlled by NITEL. In the immediate future, however, the new GLO-1 and Main One cables will provide alternative, higher capacity and technologically superior infrastructure for IIC access. Over the next two years, the WACS and ACE cables will significantly supplement the available infrastructure.

As indicated in the Consultation Paper it remains to be seen how access to the GLO-1 and other cables will be provided to competing licensees. If the GLO-1 cable comes on line significantly earlier than the other cables, it is theoretically possible that access to the GLO-1 cable could be provided in a manner that permits Globacom to extract duopoly rents from its networks. However, the Consultation Paper noted that the installation of three other submarine fibre cable systems over the next two years, one coming on line around the same time as GLO-1, should create a sufficiently competitive market to deal with any concerns about the undue lessening of competition through collective dominance by Globacom and NITEL over essential cable infrastructure.

It is nevertheless possible that there may be mergers and acquisitions among the four operators or other activities that lessen the expected increase in competition in the IIC market. The Commission will monitor such developments carefully.

- (d) “the absence of buying power or negotiating position by customers or consumers, including substantial barriers to switching service providers”:

The Commission observed that in the past, NITEL’s provision of the sole IIC submarine cable facility made switching to other IIC backbone providers practically impossible. The only alternatives were satellite or other relatively limited and lower quality IIC links, either leased or proprietary. The introduction of the new cables should make it possible for many licensees to switch from NITEL. The current situation indicates that the limited negotiating options of customers will soon be significantly expanded.

- (e) “ease of market entry, and the extent to which actual or potential market entry protects against the exercise of market power such as raising prices”:

As previously noted, entry into the Nigerian IIC market is capital intensive. However, NITEL’s high prices and limited alternative supply options have encouraged multiple new players to enter the market, as detailed above. Therefore, actual and potential entry should provide ample protection against the exercise of market power. Nigeria will soon have a very competitive IIC market, among the most competitive in Africa. This should reduce the price of IIC bandwidth, making it more affordable, increasing availability of Internet-based products and services, and increasing demand for quality of service.

- (f) “the rate of technological or other change in the market, and related effects for market entry or the continuation of a dominant position”:

The Consultation Paper observed that technological change has made it considerably less costly to install high-capacity submarine telecommunications cables. This results in relatively easier market entry. Technological change has also permitted the new cable entrants to offer much higher capacity IIC links than had been the case on the SAT-3 cable.

As discussed, Nigeria will have four major new submarine fibre cable systems operational within two years. The Consultation Paper observed that Nigeria was ranked 167th in bandwidth density according to world development indicators, and the Commission believes it important for the country to become much more competitive internationally. Accordingly, the Commission had indicated that it will monitor the degree of competitiveness of the IIC market as the new cable systems come on line.

5.3. Joint/Collective Dominance Evaluation

The Commission's Preliminary Analysis and Findings

In section 6 of its Consultation Paper, the Commission discussed and sought comments on the potential for joint or collective dominance in the IIC market today and in the future. It dealt with certain issues related to joint or collective dominance of most concern in the IIC market in Nigeria today.

Criteria for joint or collective dominance in the IIC backbone market

Entry barriers: The Commission observed that the introduction of the GLO-1 submarine cable should mark the end to any effective market dominance by NITEL in the IIC market. Since publishing the Consultation Paper it appears that the GLO-1 cable has been delayed and that both it and the Main One cable will enter the market about the same time, both over the next few months.

The Consultation Paper noted that other factors are improving the economics of deploying submarine cables, including better economics in the pricing of submarine cable systems worldwide, new technologies for deployment, higher capacities of cables and a much lower price per unit of bandwidth. While in the past, such as in the case of the SAT-3/WASC cable, a large number of investors typically combined to mitigate the substantial capital risk of building new submarine cables, today the need for such risk mitigation is not as great. In summary, it appears to the Commission that the entry barriers in the IIC market are much lower today than they have been in the past.

Frequent interaction among firms: As the Commission noted, frequent interaction among firms may lead to anti-competitive behaviour. The Commission observed that the nature of the Nigerian IIC market is likely to lead to opportunities for contact between submarine cable operators, which could lead to collusion to take advantage of the currently high IIC prices, or other conduct that would unduly lessen competition.

Few market participants: The Consultation Paper noted that despite the entry of new cable operators in the IIC market, it is unlikely that there will be a large number of market participants due to the high capital costs and other barriers to entry. The literature of competition economics suggests there is a strong incentive for collusion where there are only two market participants. However, the presence of a third competitor makes collusion more difficult. The presence of five competitors, as may be the case in the Nigerian submarine cable IIC market by 2012, should offer a robustly competitive field.

Symmetry among providers: The Commission observed that symmetry between operators can facilitate collusion and anti-competitive behaviour. However, in the current market dynamics of Nigeria for the IIC backbone, there appears to be significant asymmetry between IIC providers. For example, in the case of the three major IIC networks that will be operational over the coming months, SAT-3, GLO-1 and Main One, there are significant asymmetries of costs and of market share. In

relation to the first, the SAT-3 cost structure is based on an increasingly depreciated asset compared to brand new GLO-1 and Main One cables. The assets are also very asymmetric in terms of capacity and management. These contribute to another asymmetry – that of costs which will make it difficult for anti-competitive behaviour.

The time gap between introduction of the GLO-1 and Main One cables and then the WACS and ACE cables could also contribute to future network asymmetries, although less pronounced in terms of cost and depreciation.

The Consultation Paper noted that there are also significant asymmetries in terms of overall capacity. In principle, this should provide a deterrent against collusion or joint dominance. The following table provides updated information on start-up date and capacity asymmetries:

Operational & Planned Submarine Fibre Cable Systems

Submarine Fibre Cable System	Year Operational	Capacity
SAT-3/WASC	2001	0.34 -Tbit/s
GLO-1	2010	2.5 -Tbit/s
Main One	2010	1.92 -Tbit/s
WACS	2011	5.1 -Tbit/s
ACE	2012	1.92 -Tbit/s

Structural links and co-operation agreements among firms: As the Consultation Paper noted, the nature of the Internet and its hierarchical topology requires some structural links and co-operation among participating firms. However, while structural links and co-operation among firms can lead to anti-competitive behaviour, in the IIC market, the entry of new players and the significant asymmetries in the operations of the different players should reduce any concerns about anti-competitive behaviour.

Nevertheless, there are latent risks of joint or collective dominance built on tacit or explicit collusion. In addition, a significant merger or acquisition, such as Globacom or MTN acquiring the SAT-3/WASC could result in a lessening of competition. Regulatory monitoring will therefore be important.

Fast demand growth: The Commission has observed that Nigeria's demand for IIC services is largely unsatisfied. Based on international comparisons, Nigeria is still in the lower levels compared to other emerging and developed economies. Due to its demographics, it is to be assumed that Nigeria will see continued high demand for broadband access generally and thus IIC over the next decade.

The introduction of new IIC backbone networks will affect the business model of several operators and it will spur new ones and create new niche markets for downstream providers. All of these should further increase demand for services in the IIC market.

There may, in the future, be an incentive for conduct among major IIC providers that has the effect of limiting competition. For example, they may each seek to provide low cost services only to their own retail ISP customers, and not provide reasonably priced wholesale IIC access to competitive retail ISPs. This may undermine other smaller providers, or providers that do not enjoy the same degree of vertical integration. Again, this calls for ongoing regulatory monitoring.

5.4. Comments by the Parties

Parties who commented on issues related to dominance in the IIC market generally agreed that there will soon be significant new competition in the key submarine cable component of the IIC market. However, some parties questioned whether there would be enough competition, and some suggested various regulatory interventions to ensure lower prices and better terms of access to IIC, especially for licensees that are not affiliated with one of the existing or new cable operators. Other parties expressed concerns about potential future mergers among cable operators or possible collusive or behaviour among them.

Zain commented that the entry of multiple cable providers would help substantially in providing competitive alternatives. It agreed that the submarine cable market will become competitive over the next two years. However, it submitted that the new cables may be insufficient to meet pent-up demand and that cable operators (especially vertically integrated ones) may not offer market rates to unrelated companies. It submitted that four regulatory safeguards should be considered by the Commission, namely (i) accounting separation, (ii) price caps or tariffs, (iii) published service level agreements, and (iv) a reference offer.

Smile submitted that the licensing of GLO-1 and other IIC backbone providers (Main One, WACS, and ACE) will bring a great deal of choice as users can now select other backbone providers for IIC services. However, Smile submitted that, given the critical role of submarine cables in the provision of IIC services new entrants should have access to such infrastructure on a mandatory non-discriminatory basis, based on actual costs incurred by the owner of the submarine cable.

ZOOM mobile made relatively few comments about the IIC market. It did suggest that "The level of current and anticipated competitors in the IIC market is such that NITEL-SAT-3 and GLO-1 whether operating individually or collectively will constitute dominant providers." However, no supporting evidence or argument was submitted, and no comments were made about the pro-competitive impact of the three other new cable entrants. ZOOM mobile also submitted that "the Commission should find ways of separating the independent carriers from the retail service providers. Allowing an operator to be an independent bandwidth provider and also Internet retail service provider may give room for dominance in the market unless the prices will be controlled by Regulation."

Gateway shared the commonly held expectation that NITEL's dominance of the IIC market will change. However it submitted that commissioning of the GLO-1 and Main One cables would only have a relative impact on NITEL's market dominance. Gateway suggested that while the price of the connectivity may reduce a bit, the impact on direct consumers may not be significant. Gateway expressed concerns that the capacity on the GLO-1 cable would be restricted for the use of Globacom and its subsidiaries only. Gateway also expressed concerns about the implications of MTN's involvement in the WACS cable.

On the other hand, Gateway indicated that its experience was that Main One would be an open access cable. Gateway's submission stated that "...Main One is actively engaging potential customers and the wholesale market and currently discussing and executing NDA's towards service contract execution."

MTN submitted that it was too early to predict the vertical arrangements of suppliers in the IIC market, and that any anti-competitive behaviour ought to be addressed through *ex post* regulatory remedies. MTN indicated that there was no basis for speculation that it would not make access to the WACS cable available to other players, and stated that it would explore all avenues to recoup its investment in the cable. MTN also submitted that no regulatory intervention was required in the IIC market at this time.

Similarly, Globacom submitted that any Commission findings on dominance in the IIC market would be premature, pending implementation of the plans of the new cable investors.

In the same vein, NITEL submitted that its dominance was changing rapidly in the face of new competition. It stated that the current and anticipated competitors in the IIC market will be sufficient to ensure a robustly competitive market. NITEL indicated that IIC market behaviour would be based on price and efficiency and that there would not be any collective dominance.

5.5. Commission Findings and Conclusions on the IIC Market

Findings on Individual and Collective Dominance

Despite the presence of some limited alternative IIC networks, there is little doubt that NITEL has, for a number of years held a position of dominance over access to IIC by Nigerian Internet service Providers (ISPs) as a result of its control over the SAT-3 cable. NITEL seems to have charged prices considerably higher than in comparable markets and provided a relatively poor quality of service. Given its dominant position, NITEL has had few incentives to offer competitive prices or to improve its quality of IIC service.

However, relatively little specific evidence was provided during the Consultation that NITEL had engaged in conduct or practices that resulted in a substantial lessening of competition, at least not conduct or practices specifically described in section 8 of the *Competition Practices Regulations, 2007*.

In any event, the evidence is clear that NITEL's position of dominance in the IIC market, and its ability to engage in conduct or practices that substantially lessen competition, will change dramatically as the industry is reconfigured, with two major new cables scheduled to come into the IIC market over the next few months and two more in 2011 and 2012. Any market power NITEL may have been able to exercise in the past in order to substantially lessen competition should be resolved by these competitive entries.

The Commission has considered the comments of all parties on the issues related to IIC market dominance. The Commission agrees that it will take a lot of new cable capacity to meet the pent up demand for IIC. However, the evidence indicates that the new cables coming on stream will provide approximately 33 times as much capacity as the current SAT-3 cable (see Table above, entitled *Operational & Planned Submarine Fibre Cable Systems*). This very large increase in capacity, combined with the fact that new technologies continue to increase cable capacity suggests that it would be premature to take any form of regulatory action based on fears that insufficient capacity will be available in the near future.

The Commission agrees with the comment that submarine cables play a critical role in the provision of IIC services. However, it is possible, and indeed quite likely, with the presence of five cables in the market, most with multiple owners who will be seeking to recover their substantial investment in the new cables, that market forces will lead cable operators to provide access to all customers on reasonable terms. In the face of such a dynamic supply market, with multiple new entrants, the Commission has not seen any compelling evidence that there will be individual or collective dominance which will be abused so as to lessen competition in the IIC market or related markets.

In particular, the Commission has not been persuaded by any evidence that there is currently a need for *ex ante* regulatory intervention to ensure access to submarine cable systems on a mandatory non-discriminatory basis, based on actual costs. Such regulatory intervention is normally reserved for cases where it has been established that there will be market dominance during the relevant period of regulatory intervention. Similarly, given the dynamic and competitive nature that will likely exist in the IIC market over the coming months and years, the Commission does not consider it appropriate to implement regulatory safeguards such as accounting separation, price caps or tariff regulation, regulated service level agreements or reference offers or structural separation between cable operators and Internet service providers.

These regulatory remedies should, in the Commission's view, be restricted to cases of real or potential harm. These types of remedies would be considered seriously by the Commission if there was a likelihood of IIC market dominance on a prospective basis. These types of remedies would also be considered if market conditions, and the projected state of robust competition do not materialize.

The Commission understands the concerns expressed by some parties that there may be cases where some cable operators provide preferential rates or other treatment to their affiliated ISP or other businesses. Put another way, the Commission understands that in certain circumstances, discriminatory practices against non-affiliated licensees could lead

to a lessening of competition in the ISP market and other markets. The Commission will be monitoring market performance and will be prepared to intervene if market conditions require it to do so in accordance with the provisions of the *Communications Act* and Regulations.

Unless and until there is evidence of dominance and anti-competitive behaviour by dominant players, the international experience suggests that the best approach to ensuring robust IIC competition is through monitoring and *ex-post* regulation and penalties, rather than proactive or *ex ante* regulations that may impede investment.

Premature regulatory intervention would breach the provisions of the *Communications Act* and Regulations. Premature intervention could also lead to reduced incentives to investors in telecommunications markets and to other detrimental side-effects. Sometimes, it is better

to let market forces play out rather than attempt to dictate market results. The experience in the Nigerian IIC market demonstrates that a market dominated by a high priced incumbent service provider, even a dominant one, can attract new entrants to provide competitive alternatives and reduce any abuse of dominance by the incumbent. The Nigerian IIC market seems to be a textbook case demonstrating that market forces produce more supply to meet unsatisfied or poorly satisfied demand.

Future Collective Dominance

The foregoing findings and conclusions are generally applicable to future IIC market conditions. The Commission considers it premature to make any judgments regarding the possible exercise of collective dominance or abuse of such dominance by the new submarine cable entrants, acting alone or in concert with NITEL.

An important criterion for assessing dominance that is set out in the Regulation is “the overall size of the Licensee in comparison to competing Licensees, particularly any resulting economies of scale or scope that permit the larger Licensee to produce products or services at lower costs”. In this regard, it is relevant (as noted above) that the four new cables that will become operational over the next two years will have approximately 33 times the capacity of the SAT-3 cable over which NITEL currently provides service.

It was noted in the Consultation Paper and submitted by some parties that it was possible that access to the first new cable, originally scheduled to be the GLO-1 cable could be provided in a manner that permits Globacom to extract duopoly rents from its facility. However, this prospect now seems increasingly unlikely. The start-up of the GLO-1 cable has been delayed, and it is now scheduled to be launched around the same time as the Main One cable. The Main One cable is advertised to be an “open access” cable. As the Consultation Paper noted, installation of four new submarine fibre cable systems over the next two years should create a sufficiently competitive market to deal with any concerns about the undue lessening of competition through collusive control over bottleneck facilities.

As also noted in the Consultation Paper, and submitted by some parties, it is possible that in the future there may be mergers and acquisitions among the five cable operators or

there may be conduct that constrains the expected increase in competition in the IIC market.

Accordingly, the Commission will continue to monitor the IIC market carefully to ensure the IIC market does not become dominated by specific firms, or that there is no other conduct that has the effect of significantly lessening competition in the market.

The Commission's planned new data gathering program (see section 7, below) will enable it to undertake such monitoring on a more timely and comprehensive basis than has been the case in the past.

Conclusion

The International Internet Connectivity market has, in the past, been dominated by NITEL, as the only supplier of international submarine telecommunications cable services to Nigeria. However, no fewer than 4 new submarine cables are scheduled to commence service in Nigeria, two within the coming months and two more within the next two years. These new cables will have many times the capacity and will utilize more current technology than the SAT-3 cable used by NITEL. The record does not provide conclusive evidence that NITEL abused its position by acting in a manner that substantially lessens competition. In fact, its dominant presence in the market appears to have stimulated, and not suppressed, new competitive entry. The available evidence indicates that the IIC market is becoming highly competitive and will remain so on a prospective basis. In this regard, the evidence suggests that the market has already become competitive, with the new cable operators actively pursuing customers today.

Accordingly the Commission has determined that NITEL is not in a dominant position in the International Internet Connectivity market. Nor is there any conclusive evidence of collective dominance among NITEL and any or all of the new IIC market entrants.

6. Complaints of Anti-competitive or Abusive Conduct

During the consultation process preceding this Determination and in their written submissions, some licensees raised concerns about allegedly anti-competitive conduct, or conduct that was abusive of consumers. In some cases, those concerns were related to the issues directly before the Commission in this consultation – i.e. the existence of dominance in the two selected markets and the existence of conduct that lessened competition in those markets. In many other cases, however, the concerns did not relate directly to those issues.

The Commission considers that the resolution of some of the concerns raised by licensees can be left to market forces. For example, it appears that the concerns about limited capacity, high pricing and low quality of service in the IIC market will soon be resolved, not by regulatory intervention, but by market forces, that is, by the entry of four new submarine

cables into the IIC market. Similarly, new market entry and the expansion of the number of network and service providers in the Nigerian telecommunications industry are likely to provide competitive alternatives to network operators who constrain access to their wholesale facilities.

However, the Commission recognizes that market forces may not move quickly enough, or move at all, to resolve some concerns about anti-competitive or abusive conduct. Accordingly the Commission wishes to remind all stakeholders that the Nigerian telecommunications regulatory framework provides a number of remedies to deal with such conduct. In many cases these remedies can lead to more timely, direct and targeted resolution of specific issues than a determination of dominance under section 92 of the *Communications Act*. In most cases, these remedies can be implemented without a finding of dominance.

Some examples of areas of concern raised by licensees and actions that can or will be taken to resolve them are:

- access to tower sites/base stations - complaints and regulatory applications may be made under the *Communications Act*, the *Interconnection Regulations* and the *Collocation Guidelines*;
- access to leased lines and generally to domestic transmission facilities-applications for regulatory intervention may also be made under the *Communications Act*, the *Interconnection Regulations* and the *Collocation Guidelines*;
- lack of number portability should be resolved by the Commission's ongoing proceeding to develop number portability requirements. The Commission has published a second consultation paper on number portability which is available on its website. Number portability is projected to be implemented in December 2010; and
- poor quality of service should also be dealt with by pending regulatory action. The Commission has circulated draft *Quality of Service Regulations* for comments, and plans to implement these shortly.

A review of the Act and the Commission's Regulations and Guidelines will make it clear to licensees that specific applications and remedies are available to deal with these and various other forms of anti-competitive or abusive conduct that may occur in the telecommunications industry.

7. Industry Data Collecting & Reporting

The Commission's work in dominance reviews, and in other areas of its regulatory mandate, would be facilitated significantly if it and other stakeholders had access to more accurate, detailed and timely data on the workings of the relevant markets.

Accordingly, to assist the Commission in carrying out its statutory mandate, the Commission intends to develop a detailed new data collection and reporting system for the

Nigerian telecommunications industry. While the Commission plans to take this initiative to assist in performing its statutory duties, it believes that access to more detailed, accurate and up-to-date operational and financial statistics on Nigerian telecommunications markets will also assist the telecommunications industry, industry investors and analysts, the media and other stakeholders in their future work.

The Commission notes that regulators in different countries, as well as the International Telecommunications Union and other multi-lateral organizations, utilize a variety of approaches to collecting and reporting telecommunications industry statistics. The Commission currently collects quarterly and annual reports from licensees. The Commission intends to develop a new data collection and reporting system in such a manner that it avoids unnecessary duplication with other data collection programs and that avoids regulatory burden on the industry.

The Commission has not yet decided on the specific approaches that it will adopt in developing its data collection and reporting system. However, it will consider whether to include the following features in the system:

- mandatory quarterly reporting to the Commission by all licensees on specified key operational and financial performance statistics;
- the possibility of providing certain competitively sensitive data to the Commission on a confidential basis, in which case the Commission may only publish aggregate statistics (e.g. for whole industry segments); and
- publication of an annual report by the Commission providing detailed data on the performance of key telecommunications markets and licensees.

The Commission will consult with stakeholders and provide further information on the development of its planned data collection and reporting system in the near future.

NIGERIAN COMMUNICATIONS COMMISSION

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