

Telecommunications sector and socio-economic development: a comparative analysis of Malaysia and Nigeria

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ABSTRACT

Telecommunication as a source of communication and information is imperative to the economic exigency of any nation. This is due to the impact it has on the socio-economic development and the general wellbeing of the people. Thus, in this contemporary

society, for the other economic sectors to develop, telecommunication has a crucial role to play. It is against this background; that this paper investigates the extent which the telecommunications sector had impacted to the socio-economic development of both Malaysia and Nigeria. To achieve this, the paper adopted secondary source of data such as relevant library materials like journals, textbooks, related published articles on the internet or website and also the use of relevant national newspapers and magazines. This paper comparatively appraises the impact of telecommunications sector on the socio-economic development of both countries over the years. The study revealed that telecommunications sector has impacted immensely to the socio-economic development of both Malaysia and Nigeria. However, the study further discovered that telecoms sector is still contending with various challenges in both countries. The paper therefore recommends that in case of Malaysia, the wireless service providers should adopt migration strategy from prepaid to postpaid vis-à-vis subscribers lock-in method in order to secure their revenue and equally retain their customers due to extreme competition. On the other hand, in Nigeria telecoms providers should invest in customers' services; and that there is need for government to create enabling environment for the efficient and effective telecommunications services.

Key words: Telecommunication, socio-economic development, Malaysia, Nigeria.

1. INTRODUCTION AND PROBLEM STATEMENT

Development connotes enhancement in the lives of the downtrodden masses through better access to quality education, skills, incomes, and human capital development, technology, electricity and job opportunities. In the modern world, one of the most recognized ways to socio-economic development is via telecommunications. Ndukwe (2003) cited in Adeola & Ekejuiba (2016) and Borduas (2015) declared that access to telecommunications is vital to the development of all aspects of a nation's economy like banking, manufacturing, agriculture, education, and government. Ndukwe opined further, that a World Bank research discovered that for every one US dollar spent on telecoms infrastructure, more than six US dollars is made as economic gains by its contribution to the employment and the general economic growth.

Hence, any nation that is lagging behind in terms of access to modern telecommunications systems is obviously a weak player in the world market, as it was the case in most developing countries in the past, where hurdles such as underdeveloped urban and rural infrastructure, hinders human capability, limited teledensity, inadequate backbone infrastructure and high costs of telecommunication services were impediments to the developed of ICT. In the early stage of man, according to Ndukwe (2008) communication took place via talking drums, horns, lamps and flags. He opined further that the advancement in the telecoms sector has gone through various stages such as radio, telegraphs, television, fixed telephones, and mobile phones, while in most recent times the use of internet has taken over the centre stage in the telecommunication sector. Developing nations have also seen a gradual shift in its telecommunications sector. As observed by Ndukwe (2008) that between 1970s and early 80s Telegraphs is often used as a means of business transactions in every place. He however noted that since late 1990s, the world has witnessed a revolution and explosion in mobile telephony industry.

Access to ICT determines to a large extent access to income and wealth, therefore, enhancing the living standard of the people. Deloitte (2015) noted that telephone services are a major driver of socio-economic development. Also, Leonard et al. (2005) declared that better communications support higher income and higher income gives more people opportunity to use communications facilities. They maintained further that infiltration and penetration of telecommunications lead to changes in growth rates in the developing countries. In a similar vein, the reports from World Bank (2006) and that of World Economic Forum (2006) underscored the fact that country's economic development hinges on its general progress in the ICT industry. World Bank (2006) equally revealed that firms that make use of ICT develop faster, and more profitable and more productive than those that do not utilize ICT. Investment in GSM sector engenders profits because the spur in telecoms reduces costs of communication, enlarges market frontiers, and immensely increases information drifts. Therefore, the development of the telecoms facilities and industry, delivers nation's services which improve education, agriculture, health, public spending on social services and among others. In developing countries as remarked by Ndukwe (2009) that the telecoms gains have come via the GSM industry. Given the above background, this paper is set out among other things to comparatively appraise the impact and the challenges of telecommunications sector on the socio-economic development especially after its reforms in both Malaysia and Nigeria.

2. LITERATURE REVIEW

2.1. An Overview of Nigerian Telecommunications Sector

According to Ebinimi & Clement (2009) the development of telecommunications in Nigeria can be divided into three stages; the colonial stage, independence stage (1960-1999) and the revolutionary period (2000- to date). During the colonial period, telecoms

infrastructures were first established in 1886. According to the Nigerian National Telecommunications Policy (NNTP) (2000) cited in Raji (2017) the objective of telecommunications during this period was mainly for administrative reasons as opposed to enhance the socio-economic development of Nigeria, therefore, the development in the telecoms sector were slow.

However, Nigerian telecommunications began with cable link between United Kingdom and Lagos; it was established by the British colonial masters in 1886. After some times, it was connected to public offices in 1893 and later extended to places like Ilorin and Jebba, the present Kwara State (Ajayi et al., 1999). The first commercial telephone cable was setup in 1923 between Itu and Calabar from there, it gradually moved to places like Ibadan, Lagos, Osogbo, Enugu, Benin-city, Kaduna, Kano and other parts of Nigeria. All these development took place between 1946 and 1952 respectively (Ajayi et al., 1999). After some times there was an improvement on these facilities in order to withstand both VHF and UHF, radio were installed as well as Stronger exchanges, as opposed to the old equipment known as pegboards. These telecommunications facilities were installed by the British to aid their economic operations rather than for the benefits of Nigerians (Ajayi et al., 1999).

At the time Nigeria gained independence, as observed by Ijewere and Gbandi (2012) there were only 18,724 telephone lines for the total population of 40million, and this was insufficient. Hence, four different development plans were carried out for the enhancement of the pathetic condition of the network services under the supervision of ministry of communications. Among other objectives of these plans was to link more telecoms lines and to extend the cable networks to the main metropolitan areas cum to establish agency in the industry Nigerian External Telecommunications Limited (NETL) (Ajayi et al., 1999). However, the aims were not completely realized, but there was a significant improvement in the sector, which includes linking of the main metropolitans through microwave radio communication system, the building of satellite that enhanced external coverage, setting up NETL, and connection of an International Telephone Switching Center (ITSC). Similarly, there was increment in the telephone lines from 52,000 to 241,000 lines and among others. Ajayi et al. (1999) noted that the transition in the telecommunications sector did not just occur without some hindrances which includes, inadequate manpower to install the equipment, insufficient funds, lack of proper management of the scheme and disruption of the system due to civil war between 1967 and 1970.

In 1985, the unit of Posts and Telecoms was created and it was made as Postal and Telecoms Units, and while the telecommunication division was combined with NETL to serve as Nigerian Telecommunications Limited (NITEL), and to become a limited liability company (Ijewere and Gbandi, 2012). They averred that NITEL was established in order to enhance efficient and effective telecommunications services, and this required substantial funds, effective design and technical know-how. They equally maintained that the agency was to combine the roles of coordinating and planning local and external communications and to ensuring that these facilities were accessible and not beyond what people can afford. In 1993, the agency launched the use of telephone card, Integrated Services Digital Network (ISDN) pegging, voice mail and trunked radio in order to ensure the availability of networks like video telephone, telefax, electronic mail and among others (Odukoya, 2007). He went further that NITEL equally ensured that the telecommunication facilities were expanded to the local governments of the country.

However, the sector was shrouded with various challenges ranging from corruption, ineptitude in terms of quality service delivery, traffic congestion, and unruly behavior to customers (Sodiq et al., 2011). It was against these challenges in the sector that culminated to the promulgation of 1992 decree by the military regime that gave birth to the supervisory agency in the industry, known as Nigerian Communications Commission (NCC). The commission began operation in 1993 while full liberalization of the communications industry commenced in 2000 immediately Nigeria returned to democratic rule (Sodiq et al., 2011).

Among other functions of NCC isto grant license to telecommunication service providers, to promote investment, private participation, to resolve interconnection conflicts and to safeguard the interest of Nigerians against unethical market practices by the telecommunication operators (Chidozie et al. 2015 and Sodiq et al., 2011). The commission is to carry out these roles without prejudice, and with all sense of honesty, transparency, fairness and justice. In 1999, NCC gave approval to three GSM operators to operate as service providers, these includes, Airtel, MTel, and MTN. In the year 2002, the Commission granted a license to Globacom GMS operator while approval was given to Etisalat service provider in 2008. Universal Access Service License has been paid to run fixed telephone, internet services and VSAT in 2006.

Table 1

The Market Share among the Mobile Operators

MOBILE OPERATOR	MARKET SHARE (N)	%
MTN	56,766,085	45
GLOBACOM	25,933,867	21

AIRTEL	24,847,567	19
ETISALAT	17,035,276	14
MTEL	258,520	01

Source: NCC (2014)

Given the above background; that increased the telephone lines that was less than 500,000 before the reforms in 1999 to 38million in 2007; the number increased to 85million by 2010 while it jumped to 151 million in 2015 (NBS, 2016). This monumental achievement is due to the mobile service providers that made Nigeria the globe's fastest growing teledensity (Okonjo-Iweala, 2012). Among the achievement of the reforms include; competition in the telecoms industry, a teledensity of 3.9% was recorded in 2004 against 0.4% in 2001, while the average of 45% of the people in rural areas about 156,200km², 3.8 telephone lines connected within three (3) years. Also, there is notable increase in the access to telecoms networks by the populace, rise in job opportunities, and drop in the cost of internet services, drastically reduction in the cost of new lines and among others (Ndukwe, 2005). After three years of privatization in the industry, significant progress had been recorded. The achievement includes; a teledensity of 3.9% was registered in 2004 compared to 0.4% it was in 2001, while the average of 45% of the people in a locality of about 156,200km², 3.8 telephone lines connected within three (3) years, and four (4) are licensed telecommunication operators. There is a notable increase in the access to phones by the populace, rise in job opportunities, and drop in the cost of internet services, drastically reduction in the cost of new lines and among others (Ndukwe, 2005).

2.2. The Evolution of Malaysian Telecommunications Sector

The development of telecommunications system in Malaysia began with telegraph, with the first telegraph line linked to British Resident at Perak House Kuala Lumpur to the house of Deputy British Resident in Perak at Taipin and this was connected by the Department of Posts and Telegraph in 1874. In 1891, the introduction of telephone system began with the first line mounted in KL (Borneo Post, 2012 and Mohammed, 2003). During this period, there were just 21 cable networks in Kuala-Lumpur reinforced with 400 miles of telegraph and telephone lines. The telegraph cable networks measured 42.5km and it covered a forest at Bukit Berapit and this marked the beginning of telecommunications in Malaysia. By 1908, there was an improvement in the telecommunications networks in Malaysia especially Malaya Peninsular (Mohammed, 2003).

Given the significance of telecommunications and the interconnectivity between postal and telegraph system, telegraph and postal were later merged together called Post and Telegraph Department. And it was saddled with the responsibility of providing all telecoms services in the whole Malaya. However, in 1946, during the Japanese occupation, the two network services were then separated and this development led to the establishment of the telecommunications Department in Peninsular. While in Sarawak and Sabah, telecommunications services remained under Posts and Telecommunications Department (PTD) up to 1967 before the two departments were separated (Mohammed, 2003). In January 1968, Jabatan Telekomunikasi Malaysia (JTM) was established with the amalgamation of the Telecommunications Department of Sabah and Sarawak with Peninsular Malaysia (Lee, 2003; Lee, 2002; Yoong et al., 2011).

The genuine reforms in the telecommunication industry in Malaysia's commenced in 1983 when the private sector was involved in the supplying of the terminal equipment that later snowballed to the advance telecommunications markets such as radio paging and later on, mobile phone. However, in 1987 Malaysian telecommunications services changed from Jabatan Telekomunikasi Malaysia (JTM) to Syarikat Telekom Malaysia Berhad (STM), and it became public limited company in 1991. Having become public limited company, government now controlled the major shares in the sector in order to guarantee that crucial operational decisions are in line with government policy. Afterward, Telekom Malaysia Berhad introduced GSM services into Malaysia and this scenario led to the approval of a number of licenses to private sector telecoms service providers like Telekom Malaysia, Celcom, Maxis and Digi Communications and among other. The development was an attempt to improve the country's telecommunications sector (Market Watch, 2012; Lee, 2003; Lee, 2002 & Mohammed, 2003). In 2007, the mobile telecoms industry was reduced to only three (3) operators which include Celcom DiGi and Maxis due to telecommunications consolidation policy. Presently, the operators has expanded beyond three like Celcom, Maxis, Digi Communications, Timedotcom, Astro and PacketOne followed by small operators such as U Mobile, YTL Communication, XOX and other medium and small operators.

Arising from the above, that government set up a regulatory agency in 1999 known as Malaysian Communications and Multimedia Commission (MCMC) with the mandate to regulate and monitor the communications and multimedia industry under the umbrella of the Ministry of Energy, The Ministry is saddled with, among other functions to grant licenses to telecommunications

service providers, to plan and formulate national policy on the communications and multimedia industry in Malaysia. Based on the above, the sector metamorphosed from a monopolistic organization over fixed, mobile and international telephony services to the present transparent, deregulated and competitive and more efficient structure. In a similar vein, the state also stimulated investors in order to make available the required funds and technical expertise and skill for the accelerated development of the telecoms industry in Malaysia (Lee, 2002 & Mohammed, 2003).

2.3. Telecommunications Sector and Socio-economic Development in Nigeria

There is no gainsaying that sophisticated telecommunications facilities are a sine qua non to modern state to develop its optimum potential. It is against this background; that Borduas (2015) opined that access to telecoms is vital to the development of all aspects of a country's economy such as manufacturing, banking, education, agriculture and government. According to Osotimehin et al. (2007) since most countries have carried out reforms in their telecommunications sector, it has paved the way for massive investment, leading to private participation in the sector, better education, job opportunities and training facilities. Without a doubt, since the involvement of private sector in the telecommunications sector in Nigeria, there has been a record of development, especially in respect to the economy of the country. The reforms in the telecom has led to the improvement of substructure due to considerable investments, enhanced business processes, increased access to communication among the people, enhanced transactions, job opportunities, improved efficiency in other sectors as well as country's GDP (Awolaye et al, 2012). They equally maintained that the reform in the telecommunications industry had been a massive success and overwhelming improvement, especially to Nigerian economy. Fasunwon (2014) corroborated the above claims when he averred that the deregulation of telecommunications sector had been able to create jobs for Nigerians, especially those who are involved in the sales of phones, sales of recharge cards, phone accessories, telephone repairs, advertisement, as well as temporary and permanent workers of GSM service providers. He maintained further that rather than promoting job loss, that the reform in the telecoms sector had reduced the level of unemployment and has equally enhanced the growth of Nigerian economy. According to NCC (2014), the sector has impacted overwhelmingly to Nigerian GDP. For instance, from 0.62% in 2001 to 8.53% in 2013, the subscribers has increased from 2,217,040 in 2002 to 127,603,629 in 2013, while the teledensity has also increased from 1.89 in 2002 to 91.15 in 2013. Below table and figures represents the trends in the telecommunications sector in Nigeria.

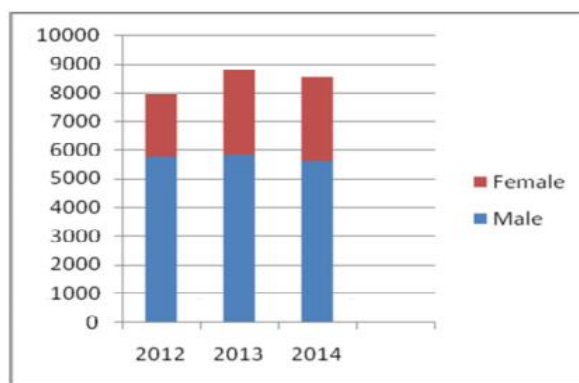


Figure 1 Number of direct employment in the mobile telecommunications Sector

Source: NBS (2015)

Table 2

The number of Subscribers/Teledensity between 2002 and 2013

Year	Number oSubscribers	Teledensity
2002	2,271,050	1.89
2003	4,021,945	3.35
2004	10,201,728	8.5
2005	19,519,154	16.27
2006	33,858,022	24.18
2007	41,975,275	29.98
2008	64,296,117	45.93
2009	74,518,264	52.23
2010	88,348,026	63.11

2011	95,886,714	68.49
2012	113,195,951	80.85
2013	127,606,629	91.15

Source: NCC (2014)

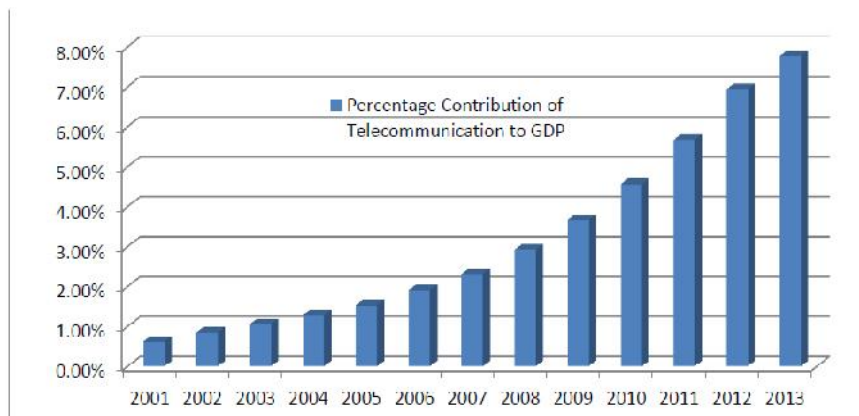


Figure 2 The contribution of the telecommunications sector to GDP in Nigeria

Source: NCC (2014)

2.4. Telecommunications Sector and Socio-economic Development in Malaysia

According to Market Watch (2012) since the reforms in telecoms industry, aside from Singapore, telecommunications in Malaysia has developed than any other countries in South-east Asia. It was observed in the Market Watch that the private participation in the development of the Malaysian telecommunication facilities has guaranteed the establishment of solid information facilities like wireless transmission, optic fibres, satellites, unified communication, 3G content and among others. According to Market Watch, telecommunications sector is largely thrive by the cellular section. For instance, in 2005 the emergence of 3G wireless telephone services played a vital role to the growths of telecommunication industry. In 2010, the number of wireless telephone users had increased to 33,859 million represents 119.2% penetration rates it increased to 35,707 million by 2011 stands as 124.6% penetration rate. It was noted that development in the telecommunications has improved the standard of living of many people while urban areas are emerging very fast and are flourishing with an increasingly and faster cash flow. And this expansion is aided by the opportunities in the information and communications.

In a similar vein, Yoong, et al. (2011) noted that the reform has brought about competition in the industry especially among the cellular phone service providers particularly the international or long distance calls and the development has benefited the subscribers or the users. The reforms in the Malaysian telecoms industry has overwhelmingly contributed to the revenue growth and production of the country.

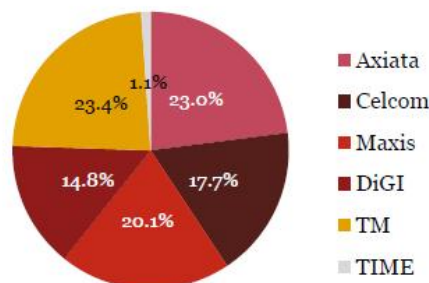


Figure 3 Revenue market share of major players in Malaysia's Communications sector

Source: MCMC's Industry Performance Report 2013

As observed by Lee (2002) that the performance in terms of revenue growth and production has improved as a result of reforms compared to pre-reforms era. Corroborating Lee, the study carried out by the Malaysian Communications and Multimedia Commission in conjunction with Institute of Labour Market Information and Analysis (2015) noted that telecommunications sector is

also a main revenue player to Malaysian economy. The study indicated that as at 2013, the sector contributed RM45.3 billion represents 84.8%. Out this percentage, aside from Telekom Malaysia that contributed 23.4%, Axiata contributed the largest 23.0%, among the cellular telecoms service providers followed by Maxis 20.1%, Celcom 17.7%, Digi 14.8% and Time 1.1% respectively. The study maintained further that there are lots of applications embedded in telecommunications sector like Applications Service Provider (ASP), Network facilities provider (NFP), Network Service Provider (NSP) and Content Applications Service Provider (CASP) that play very significant role in the growth of telecoms sector in rendering services to fulfill consumer needs. Figure 3 below shows the revenue market share among the telecom players in Malaysia.

According to Malaysia Telecoms, Mobile and Broadband (2010) reports, the development in telecommunications sector has boosted the country broadband. For instance, subscription for broadband has witnessed massive increment from infiltration rate of 31.7% in the year 2009 to 55.6% in the year 2010. The report noted further that in the third Quarter of 2011 that the development in broadband infiltration for households increased to over 61%. It concluded that with the present penetration of over 120% in Malaysia, represents one of the highest infiltration rates for mobile phones in South East Asia. In the same token, the report also maintained that the accessibility and affordability of high tech phones calling plans, as well as access to internet can be seen to be increasing.

Similarly, the role of telecoms sector to socio-economic development of Malaysia was captured in the Ministry of Finance Economic Report 2011/2012. According to the report, Communications Content and Infrastructure (CCI) which involves the general environment from content generation devices to networks services form part of the twelve National Key Economic Areas (NKEA) next to electrical and electronics, oil gas, palm oil, agriculture, and among others. In a similar vein, the study carried out by Malaysian Communications and Multimedia Commission in conjunction with Institute of Labour Market Information and Analysis (2015) also underscored the imperative of telecoms sector to Malaysian socio-economic development. In the study, it is noted that out of RM22 billions National Key Economic Areas (NKEA) contributed to Malaysian Gross National Income (GNI) in 2015 that bulk of it emanated from telecommunications sector. The study also revealed that there is a plan on the way by the government to increase the CCI sector to RM57.7 billion by 2020. The study emphasized how vital is the telecommunications sector to the Malaysia's development especially leading the country into high income nation. The study acknowledged how the telecoms industry serves as industrial growth and enabler of enhanced economic expansion. In addition, the study equally pinpointed the contribution of telecommunications sector to employment opportunity in Malaysia. According to the study, in 2013 only, the sector employed the total number of 50,800, and out of this, 27,700 were employed at managerial levels.

Again, as noted in the Economic Transformation Programme Report (2013) telecommunication sector has performed well in Malaysia especially among the East Asian countries. In the report, telecom sector contributed 4.9% to Malaysian Gross Domestic Product (GDP) in 2009 which was higher than other countries in the region. The figures below represent the contribution of telecommunications sector to Malaysian GDP.

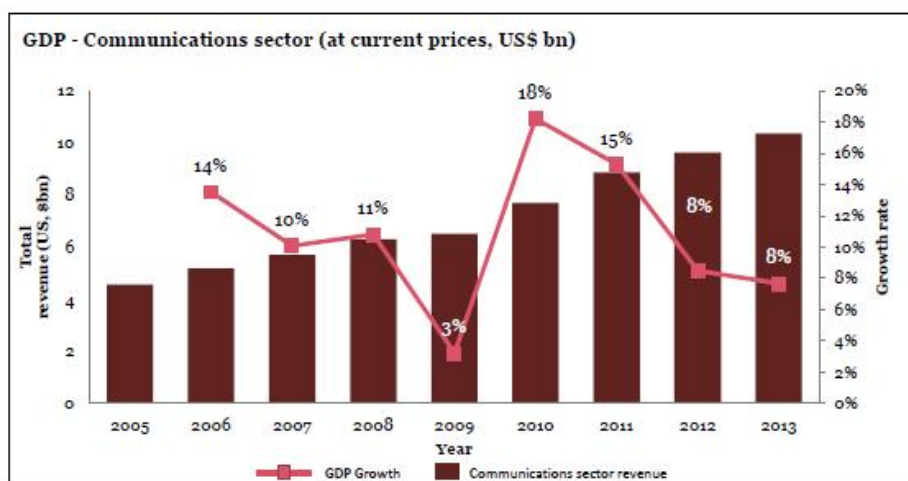


Figure 4 Malaysia Communications Sector and GDP

Source: Service statistics (2013). Department of statistics Malaysia

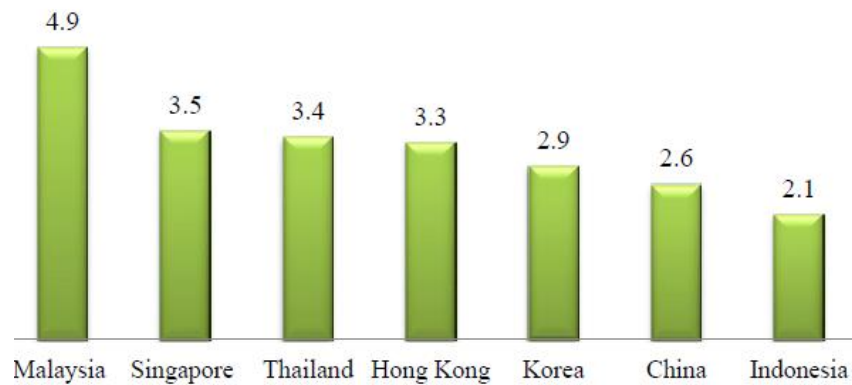


Figure 5 Telecommunication contribution to GDP in East Asian Countries in 2009

Source: *Economic Transformation Programme Report (2013)*

2.5. Telecommunications Sector and Socio-economic Development: The Nexus between Malaysia and Nigeria

Indeed, given the above analysis, since the reforms in the telecommunications industry in Malaysia and Nigeria, the sector has recorded a high level of socio-economic development regarding their economy. The privatization of the telecoms sector has enhanced communication among the people in both countries, it has improved infrastructure due to massive investments in the sector, streamlined business transactions, job opportunities, improved output and productivity of both countries. According to data from both Malaysia and Nigeria, telecommunications industry has contributed overwhelmingly to the Gross Domestic Product (GDP) of both countries.

Again, the introduction of cellular phone or GSM in both countries was another significant impact of the reforms in the telecommunications industry and it has positively affected other areas of the economy in both countries' socio-economic development; for example sectors like banking, health and education have had their operations streamlined with the help of ICT via telecommunications sector such as e-payment, internet or mobile banking, e-health and distance learning. In addition, private participation in the telecoms sector in Malaysia and Nigeria has also led to the wide spread of telecommunications networks penetration, unlike pre-reforms era where the telephone services were concentrated in the cities.

The reforms have bridged the communications gap between the people in urban and rural areas in both Malaysia and Nigeria. The above analysis of the contribution of the telecommunication sector to socio-economic development of both countries shows that both countries had made billions of Malaysian Ringgit as well as Nigerian Naira via taxes, revenue, licenses and other levies through telecoms sector. Aside from revenue and other levies generated from telecoms sector by both countries, data from above also indicated that the telecommunications sector had been able to create jobs for both countries, especially those who are involves in the sales of mobile phones, sales of recharge cards or top up as the case may be, phone accessories, telephone repairs, advertisement, as well as temporary and permanent workers of telecoms service providers.

For instance, according to Malaysian Communications and Multimedia Commission in conjunction with Institute of Labour Market Information and Analysis (2015) in 2013 only, telecommunications sector employed the total number of 50,800, in Malaysia and out of this, 27,700 were employed at managerial levels. In similar vein, Nigerian National Bureau of Statistics (2007) also confirmed that over three millions (3,000,000) indirect job opportunities have been provided in Nigeria via the operation of franchise and retail outlets for access, recharge cards, and telephone shops. Other than promoting job loss, telecommunications sector had reduced the level of unemployment and has equally enhanced the socio-economic development of Malaysia and Nigeria.

2.6. Telecommunications Sector and Socio-economic Development: The Disparity between Malaysia and Nigeria

Based on the proceeding analysis, it is palpably clear that telecommunications has impacted tremendously to the socio-economic development of both countries. However, despite the common achievement of telecoms in both countries, there are still some areas of concern in the Nigerian telecommunications that are yet to be addressed as opposed to Malaysia telecommunications sector. Since the reforms in the telecommunications sector in Nigeria, one of the major concerns of the Nigerian citizens is the ownership structure of the sector. For instance, among the four major telecoms operators in Nigeria, only one is currently owned by indigenous firm the remaining three are being controlled by foreign firms. MTN Nigeria from South Africa, Airtel from India, the only telecoms operator owned by local firm is Globacom while the ownership position of 9Mobile is not yet cleared as it was recently acquired from Etisalat Mobile communication.

Given the data from NCC (2014) the telecommunications market is being controlled by MTN with 56,766,085 subscribers represents 45% of the total market followed by Globacom service provider with 25,933,867 subscribers' represents 21% ; Airtel controlled 24,847,567 subscribers, stands as 20% of the market; while Etisalat has 17,035,276 of the subscribers, stands as 14% of the total market. Beside market domination, the indigenous productive efforts and capability have been taken over by the competition from the foreign companies. It is against the background that the sector is capital intensive, most parts of the industry starting from telephone accessories, mobile phones to software are in the hands of Transnational Corporations (TNCs). This development in telecoms sector in Nigeria is absolutely different from Malaysia where the sector is being controlled by indigenous companies. For instance, there are three major cellular service providers which include Celcom, Maxis and Digi Communications, out these service providers, the larger percentage of their shares are owned by the indigenous Malaysians aside from medium and other small cellular services providers like Timedotcom, Astro, YTL Communication, XOX, U Mobile, Redtone and among others hardly for anyone of them to be in total control by TNCs as it is in Nigeria.

Similarly, in terms of efficiency and effectiveness, Malaysian telecoms service providers have achieved significant improvement as opposed to Nigeria where the telecommunications services is often erratic as a result inadequate power supply that has continued to be a strong hurdle in an effort towards increasing quality of service in the telecoms sector. In Nigeria, as noted by NCC (2011) to sustain steady networks, the telecoms operators have to maintain their Base Transmission Stations (BTSS) with generator sets which operate spontaneously whenever there is power outage from the public supply. The situation, according to NCC has created additional operational liability on the telecoms providers with the negative multiplier effects on the service delivery. Thus, the Nigerian telecoms service providers charge exorbitant tariffs owing to self-electricity generation to run their BTSS.

In addition, Nigeria's telecom operators' equipment is often threatening by incessant vandalization (MTN Stakeholder Report 2013 and NCC 2011). They maintained further that telecoms operators' equipment such as Automatic Voltage Regulators (AVR), generator sets, and diesel; air-condition units are often vandalized by the militants popularly known as Area boys. The situation has continued to be seen as a serious setback in the sector. While service providers have persistent to worry on the negative impact it has over the provision of quality services to their teeming customers variant to Malaysian telecom sector where cellular operators hardly experience such unfortunate circumstance.

Again, as observed by Raji et al. (2017), MTN Stakeholder Report (2013), NCC (2011) and Ndukwe (2009) the telecoms industry in Nigeria especially service providers are still contending with lack of good roads and infrastructure in most of their host communities. For instance, in Nigeria, more often than not telecommunications service providers have to embark on road rehabilitation or construction to their host communities some time before installing their masts, whereas, in Malaysia all these facilities had already been provided by the government for the cellular services providers. This is due to the fact that, many communities and villages in Nigeria lack accessible roads and other infrastructure. Hence, service providers are usually forced to make those facilities available before they are being allowed to have access to such communities.

In addition, another area of concern regarding telecommunications in Nigeria as against Malaysia is the telecoms penetration. In Nigeria, many rural areas are yet to enjoying the impact of reforms in the telecommunications sector unlike in Malaysia where every nook and cranny of the country enjoying the benefits of telecoms as a result of large penetration of telecommunications networks.

However, in Nigeria, there is large market for telecommunication service providers which are yet to be explored. This position was corroborated by Ndukwe (2005) when he declared that with country population of over 100 million people that Nigeria still remains economic potential and most important African market. And this is against Malaysia where the cellular operators had already reached the saturated point of their market as a result of the country's small population.

2.7. Challenges of Telecommunications Sector: Malaysia and Nigeria Experience

Every breakthrough comes with its attendant of challenges. The same goes for telecommunications. As a result of continuous expansion in the sector, the industry continues to witness different hurdles. However, these challenges vary from one country to the other. For instance, in Malaysia one of challenges of the telecoms operators according to Business news (2017) and Chuah et al.(2015) is that local market is moving towards prime and growth potentials therefore, the profits for the operators is now under threat as a result of serious competition and increasing cost. And the telecom operators have limited options for new opportunities to raise their revenues and returns and in an attempt to increase their returns, it involves the need to raise their expenditure on capital spending which will eventually aggravate costs to enhance their service quality and develop new products and improve their infrastructure to meet the new developments in consumer demands in order to still be relevant in the business.

Another challenge facing telecommunication sector in Malaysia especially cellular service providers is high level of prepaid subscribers compared to total subscribers particularly on wireless telecommunications services. According to Malaysian Communications and Multimedia Commission (2013) there are more prepaid wireless subscribers in relation to postpaid users in the

Malaysian telecoms market. For instance according to MCMC the ratio is 82:18 represents 33.95 million prepaid subscribers while 7.38 million postpaid users as of the fourth quarter of 2012. As noted by Leong (2012) cited in Chuah et al. (2015) with the high level of prepaid users, the wireless providers are at the receiving end as result of large churn rate or poor customer allegiance, as subscribers did not have any problem in swapping to other networks as a result of prices and other conditions.

Again, with the high level of competition brought by Mobile Virtual Network Operators (MVNOs) and Wireless Number Portability (WNP) in Malaysia, cellular or wireless operators have been forced to cut down their tariff for voice and SMS services in the struggle to attract more subscribers and to keep the existing ones. As a result of that, it has significantly affected the profits and returns made from voice and messaging services. As revealed by CIMB Equity Research (2013), wireless operators in Malaysia have witnessed poor growth in their overall wireless service returns in recent times. Precisely, in the third quarter of year 2012, all three main telecommunications such as Maxis, DiGi and Celcom had recorded a decline of 8%, 3%, and 2% in their voice and messaging services revenue. On the other hands, Nigerian telecommunications sector especially mobile operators are seriously battling with erratic power supply. As remarked by MTN Stakeholder Report (2013) and NCC (2011) to maintain steady networks, the mobile operators have resorted to maintaining their BTS with generator sets which operate spontaneously any time there is power outage from the public supply. Owing to this situation, tanks are built at various sites for diesel storage and supply to the generator sets on regular basis. The situation, according to GSM service providers, has added extra operational burden on the telecoms providers with the negative multiplier effects on their service delivery.

Another challenge to telecom operators in Nigeria according to NCC (2010) and Ndukwe (2009) is high import duties and stringent clearance conditions. As observed by NCC and Ndukwe, the large parts of GSM equipment in Nigeria are imported, and this equipment are often subject to rigorous processes and conditions which hinder the pace of network deployment in Nigeria.

The paper argues that adverse effect of poor investment in telecommunication industry on the socio-economic development in Nigeria and Malaysia. However, adequate investment in sector would promote socio-economic development in the countries lesson from Asian Tigers countries. Empirically and theoretically, it has been established that there is interconnectivity between telecommunication industry investments and socio-economic development. Although there are no consistency in findings as scholars argued between direct and indirect relationship between investment in telecommunication sector and socio economic development. Meanwhile, it is imperative to investigate the impact of investment in telecommunication industry on the socio-economic development in Nigeria and Malaysia. Therefore, there is the need to empirically evaluate investment in telecommunication industry on the socio-economic development in Nigeria and Malaysia with the hope that the findings could have relevance on the implementation of policies to will promote this sector in these countries.

3. THEORETICAL FRAMEWORK

This paper has for its purpose modernization theory. Modernization is the theory employed to describe the process of development within the context of developed and under-developed societies. It is a progressive approach that advocates for change especially from a primitive society to advanced society. The theory was developed by Max Weber (1864-1920) and it was further developed by Talcott Parsons (1902-1979). The theory upholds that the less developed nations can only develop if they embrace modern practices Wolfgang (2003). The advocates of modernization theory argued further that advanced nations are richer and stronger and their nationals have access to enjoy a good standard of living. Developments such as new data technology and the need to jettison primitive way of life in terms of communication, transportation and production, it is claimed, make modernization important or at least better to the status quo. Modernization theorists argued that under-developed nations lack traits that are suitable for development that only the developed nations can assist these nations to catch up development. Therefore, as telecommunications infrastructures play a very significant role in the development of countries like UK, US and France, developing nations therefore have to borrow a leaf from these countries in order to achieve development. It is against this background that the developing nations like Nigeria and Malaysia carried out comprehensive reforms in their telecommunications sector in order to maximize the full potential inherent in the sector.

3.1. Methodology

The paper adopted secondary source of data collection such as documents and reports from relevant telecom agencies as well as world bank development indicator, IMF, valuable library materials like journals, textbooks, related published articles on the internet or website and also the use of relevant national newspapers and magazines related to telecommunications sector in both countries.

4. POLICY IMPLICATIONS

The policy implications will be based on the outcome of the proposed research on impact of investment in telecommunication industry on the socio-economic development in Nigeria and Malaysia. We expect a positive relationship between investment in telecommunication industry and the socio-economic development in Nigeria and Malaysia. The development of the telecoms facilities and industry, delivers nation's services which improve education, agriculture, health, public spending on social services and among others. This will improve Socio-economic Development in Nigeria and Malaysia. Furthermore, the concerned authorities should encourage investment in telecommunications Sector to improve socio-economic development.

5. CONCLUSION AND RECOMMENDATIONS

This paper has been able to juxtapose and analyze the telecommunications and socio-economic development in Malaysia and Nigeria. The study revealed that telecoms sector has contributed heavily to the socio-economic development of both countries especially after its reforms. The study found that Nigerian telecoms sector is lagging behind in terms of quality services due to poor power supply in the country, vandalization of GSM operators equipment and among others compared to Malaysian telecoms sector where cellular service providers provides quality services as a result of stable electricity, high level of infrastructural development and zero record of vandalization of the telecoms equipment. The study identified some challenges in the industry in both countries. The paper therefore recommends that in case of Nigeria, that government should provide enabling environment for telecoms operators such as infrastructure, security against GSM operators' equipment while telecoms providers need to upgrade their facilities especially to rural areas that are yet to benefit from the impact of telecommunication.

On the other hand, in Malaysia, the telecom operators especially wireless service providers should adopt migration strategy from prepaid to postpaid in order to secure their revenue and returns. Again, the cellular operators need to employ the subscriber lock-in method so as to retain their customers due to extreme competition in the telephony market. Lastly, it is advisable for the wireless operators to partner with Over-The-Top (OTT) players like Whatsapp, Wechat, Facebook, and Twitter and among others to provide attractive bundles for their subscribers in order to maintain their revenue and at the same time remain in the market.

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