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Comparative Benefits of Mobile Telephone in Selected Rural and Urban Locations of Obio/Akpor Local Government

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Abstract

The study comparatively identified the benefits of mobile telephone to users in selected rural and urban locations in Obio/Akpor local government area of Rivers State, Nigeria. Stratified and simple random sampling techniques were used in selecting 60 rural and 60 urban phone users to have a total sample size of 120 respondents. Structured questionnaire was used to generate data that were analyzed descriptively. T-test was used for hypothesis testing. Socio-economic characteristics revealed that 53.33% and 50% of the respondents were females in rural and urban locations respectively. Also 25-34 years represented the highest age range for both rural (63.33%) and urban (48.33%) mobile phone users in the area. The marital status of the respondents shows that more (70.00%) urban than (66.67%) rural respondents were single. The duration of mobile phone use indicates 1-4 years as the highest with a higher proportion in the rural (51.67%) than 46.67% of urban respondents. Majority (90.00%) of the urban respondents made use of MTN service provider than 83.33% of the rural respondents. The highest benefit with 100.00% in both rural and urban locations was to socialize with friends and relations. The mean of the benefit of the use of mobile telephone was more in the rural location with 51.19% than the urban location with 46.86%. The t-test result to show the difference in the benefits of mobile phone between rural and urban location users was significant at 0.05 level of significance (p-value = 0.022). Accessing agricultural extension information was the least benefit in the use of mobile phone as shown by 5.00% of rural users and 3.33% of urban users. Improvement of communication between the extension agents and farmers with the use of mobile telephone is recommended in the study area.

Keywords: Comparative; Benefits; Mobile telephone; Rural locations; Urban locations

1. Introduction

1.1 History of Mobile Phone

Mobile phone is looked upon as a modern invention. Its origin can be traced back to the invention of telephone way back by Graham Bel in 1870s and the success in the capture of radio message. These technologies paved the way for the invention of mobile phone (Gadgets and Gizmos Electronics, 2012). The first hand-held mobile phone was demonstrated by Dr Martin Cooper of Motorolá in 1973, using a handset weighing about 1 kilogram (Heeks, 2008). In the twenty years from 1990 to 2011, worldwide mobile phone subscriptions grew from 12.4 million to over 5.6 billion, penetrating the developing economies and reaching the bottom of the economic pyramid (Heeks, 2008).

Radio phones have a long and varied history going back to Reginald Fessenderi's invention and shore-to-ship demonstration of radio telephony, through the Second World War with military use of radio telephony links and civil services in the 1950s. The first mobile telephone call made from a car

occurred in Saint Louis, Missouri, and USA on June 17, 1946, using the Bell Systems Mobile Telephone Service. In 1956, the world's first partly automatic car phone system, Mobile System A (MTA), was launched in Sweden. MTA phones were composed of vacuum tubes and relays, and had a weight of 40 kilograms.

Martin Cooper, a Motorola researcher and executive is considered to be the inventor of the first practical mobile phone for hand held use in a non-vehicle setting, after a long race against Bell Labs for the first portable mobile phone. Using a modern, Cooper made the first call on a hand held mobile phone on April .3, 1973 to his rival, Dr. Joel S. Engel of Bell Labs (Shiels, 2003).

Telecommunication services were introduced in Nigeria by the British Colonial government in 1886 to facilitate colonial administration in the country. After independence, in 1966, there were only 18,724 telephone lines for use by a population of about 40 million people (Edison, 2002). In January 1985, the Post and Telecommunications Department splited into a postal division and a telecommunication division. The latter was merged with the Nigerian External Telecommunication Limited (NITEL). Its main objective was to harmonize the planning and coordination of the internal and external telecommunications services (Edison, 2002). Two mobile cellular telephone networks were approved in September, 1997 by the Ministry of Communication and the Nigerian Communications Commission (NCC), which boosted telecom services in Nigeria. The Nigerian Telecommunications Limited (NITEL) cellular network and Mobile Telecommunications Services Limited (MTS), managed by NITEL covered Lagos, Enugu, and Abuja with a capacity of 10,000 lines having one mobile switching centre (MSC) in each area, while MTS Limited operated 5,000 cellular line capacity network based in Victoria island, Lagos (Ndukwe, 2003).

Nigeria joined the world's digital cellular network in January 2001 with the licensing of private telecommunications operators by the regulatory body, Nigerian Communications Commission (NCC) which was established in 1992. There were four major Global Systems for Mobile Communication (GSM) service providers licensed in Nigeria as at then. The providers were Mobile Telecommunication Network (MTN) Nigeria, ECONET Wireless Limited or V-mobile (now Zain), NITEL (now MTEL) and GLOBACOM. Since 2002 when the last license was issued to GLOBACOM by the NCC in Nigeria, several other service providers such as Starcom, 0-net, Multilink, Etisalat, Visafone, Zoom, ctc have emerged but had limited coverage.

GSM has created an environment for telephony for Nigeria. In December 2001, Engr. Ernest Ndukwe, the chief executive of Nigerian Communication Commission (NOC) called a press conference in Abuja to reflect on the year's activities. He could not hide his joy when he proudly announced to the world that Nigeria now has over 280,000 mobile lines in just four months of GSM operation in Nigeria. Most Nigerians will look back at 2001 as the year they were liberated from telecommunications backwardness. It is indeed like a dream. Something happened in the field of communications, putting to an end, all the propaganda that telephone is for the rich.

1.2 Benefits of mobile phones

The rapid spread of information and communication technologies (lCT) in developing countries over the past decade offers a unique opportunity to transfer knowledge through the private and public information systems. Coinciding with this increase in mobile phone coverage has been an increase in mobile phone adoption, even in some of the world's poorest countries. As at 2008, there were about four billion mobile phone subscribers worldwide, with 374 million subscriptions in Africa, (International Telecommunication Union, 2009). While the initial subscription was primarily by the wealthy, urban and educated residents, mobile phones are currently being subscribed by the rural poor in many of the world's poorest countries.

Mobile phones significantly reduce communication and information costs for the rural poor in developing countries. This not only provided new opportunities for rural farmers to obtain access to information on agricultural technologies, but also to use ICTs in agricultural extension systems. From 2007, there has been a proliferation of mobile phone-based applications and services in the agricultural sector, providing information on market prices, weather, transport and agricultural techniques via voice, short message service and internet.

1.3 Mobile phone use in Agricultural Extension

Mobile phone improves access to the use of private and public information about agricultural technologies, thereby potentially improving farmers' knowledge, skill and productivity. As previously discussed, farmers have information needs at various stages and on various topics for the agricultural production process. Traditionally, farmers in developing countries have obtained such information from personal visits, radio and to a lesser extent, landlines and newspapers. Mobile phones, by contrast, has reduced costs of obtaining information as compared with other information mechanisms. Mobile phone is significantly less expensive than the

equivalent per-search opportunity and transport costs in obtaining the same information from a newspaper. This could speed up or increase farmers' contact with other adopters in a social network, thereby allowing farmers to virtually observe more trials of a new technology or to observe these trials more frequently. The overall impact on farmers' technology adoption, however, might be ambiguous, due to learning externalities (Foster and Rosenzweig, 2010).

In agriculture, the mobile phone holds the application of modern information communication technologies (ICT) to disseminate information and knowledge to farmers. In the fisheries sub-sector, mobile phone is used to coordinate fishing efforts (Adogla, 2009); product marketing, talk and to improve safety (Spore, 2008); as well as linking fisherman and wholesalers together for business (Scheen, 2008). Fish marketers need market information and intelligence to generate wealth and sustain the livelihood of the millions of people in the fish market business. According to Neiland et al., (2005), a total of 117,170 tons of smoked and dried fish valued at $54 million was marketed in Lake Chad between 2002 and 2003. Nigeria commands the highest (48%) market share, valued at $26 million dollars of fish traded in the six riparian countries of Lake Chad. Another inland freshwater is Kainji Lake with an estimated 40,800 metric tons of fish resources worth 16.3 billion Naira. The volume and value of this fish trade makes it imperative for fisher folks to be connected to GSM networks to boost economic activities and income, and to reduce hazards and poverty. Mobile phone technology is vital in an isolated place like the Kainji Lake Basin where distance and communication are threats to livelihood of fishing entrepreneurs in 314 fishing communities.

1.4 Other Socio-economic Benefits of Mobile Phone

Since the introduction of GSM to Nigeria in 2001, mobile phone has become a powerful tool for communication across the country among both the young and the old people, as it has been changing the lifestyle of people. Mobile phone is equipped with various features that enable communication and entertainment for its young users. Ling (2001) clearly states that previous study found that the most popular feature used among young users were text messaging. While the older Nigerians use mobile phones for voice communication, teenagers and young adults have adopted the use of SMS as their major way of socializing and maintaining real-time relationships. SMS has found relevance in almost every sphere of Nigerian social life. It has been adopted as the major means of establishing romantic relationships among young people. Several books are on sale in markets in the major cities around the country that give advice to tongue-tied young lovers in the techniques of wooing ladies they admire through text messages using mobile phone.

Text messaging using mobile phone has also become popular medium for the construction of Christian values, belief system and sentiments in Nigeria (Chiluwa, 2008; Taiwo, 2008). The thriving community SMS users in the country has also grown into a strong force in fighting exploitation of the masses (Obadare, 2006; Taiwo, 2008). In the business sphere, SMS is employed in banking services for notification of payments and withdrawals. Several programmes on the electronic and print media also solicit SMS from the public for counseling and feedback.

Nigerian women are reported to use their SMS to fulfill social-relational function among their friends and family members (Taiwo, 2008). For instance, a quantitative study on adolescents revealed that mobile phones play an integral part in the lives of young people (Walsh et al., 2008). Some of the participants in the study reported very strong attachment to their mobile phones. They felt as though their mobile phones were part of them. Another qualitative study by Bond (2010) examined children's mobile phone use and concluded that mobile phones were fundamental tools with which the children maintain and manage their relationships contributing to reinforced peer ties. Among the mobile phone users in romantic relationships, a higher number of voice calls were associated with positive relationship qualities (Jin & Pena, 20l0). Other studies reported that the presence of mobile phones provided a higher sense of security in potentially harmful situations. This has contributed to an increase in mobile phone value leading mobile phone users to perceive mobile phones as a must-have tool (Nasar et al., 2007).

This social use of the mobile phone among the females is congruent with previous findings on the use of conventional telephones (Wei & Lo, 2006). In addition, females have consistently displayed higher levels of attachment to their mobile phones (Geser, 2006). The proliferation of mobile phones in Africa is not just helping the people to fulfill their interpersonal communication needs. It is also transforming the political and social landscape of these developing countries by empowering the people to participate in their own political affairs. In Nigeria, text messaging was used in the 2007 general elections as a tool for systematic election monitoring (NMEN, 2007).

In Nigeria, the National Economic Empowerment Development Strategy (NEEDS) highlights the nation's socio-economic development

aspiration. Specifically, it called for the reform of the public sector, enabling a robust private sector-led economy and the implementation of an effective social charter to reduce poverty, create wealth, generate employment and re-orientate national values. One fundamental feature is that it clearly delineates responsibilities between government and the private sector. While government would provide the enabling business and regulatory environment, the private sector is to invest in and manage ventures that stimulate and support socio-economic development (Ajiboye et al, 2007). Communication with mobile phone is an essential factor in the promotion of investment environment that would result poverty alleviation through wealth creation.

Mobile telecommunication is becoming one of the most important industries in the world. Although, perhaps, not the intent of introducing a new technology, the implementation of the GSM standard has directly and indirectly contributed to economic growth, led to the creation of new employment opportunities and contributed significantly to the GDP of many countries (Wojuade, 2005). According to Balogun (2000), GSM facilitate economic development as it provides easy and effective communication need to stimulate and promote trade between Nigeria and its foreign partners in the world. Even at home, it plays a critical role in communicating government programmes thereby linking to entire societies of the economy together in order to achieve a common goal.

Above all, it encourages investment which in the long run promotes employment opportunities. In respect of employment, over 135, 000 persons have been directly and indirectly employed in Nigeria by the mobile phone operators and their distribution chain components while the industries support service sectors such as banking, insurance, consultancies (legal, accounting, tax) haulage, shipping and IT, as well as the Small and Medium Scale Enterprises (SME) segment of the economy have also witnessed very significant levels of increased activity. National productivity has also been enhanced as travel times and associated risks have been reduced. Business communications have improved and the rural-urban divide has narrowed down.

Social and family relationship and the security situation have also been significantly enhanced. A significant number of Corporate Social Responsibility (CRS) initiatives are being sponsored by the mobile phone operators. GSM has discouraged rural-urban migration, unlike before the advent of GSM when rural dwellers relocate to the cities. Now with GSM they travel to cities without boarding a vehicle. The introduction of GSM has also shown a potential for reducing crime and mortality rate. Accessibility to phone services have ensured quick calls to security operations when the need arises as well as informing the fire stations during fire incidents to save lives and properties. Thus, GSM has greatly improved the socio-economic, security, and information-based sectors of the economy.

1.5 The Rural and Urban Areas

Two opposite sites of human habitation are identifiable globally. While one site is the rurality, the other is the city. Those who inhabit the rurality are known to dwell in rural areas. On the other hand those who inhabit the cities are known to dwell in the urban areas. The urban area is characterized with densed population and vast human activities and facilities. The rural area is a geographical local environment which is not urban in nature. The rural area is the countryside, where life is simple and close nature. About 70% of the total population of Nigeria lives in the rural areas. This study was carried out in both the rural and urban locations of the study area.

The research problem of this study was that, prior to this time in Nigeria, there was stress and risk in the dissemination of information. People were faced with difficulties during emergency situation when they need to reach out to their friends, customers, the security agents employers and so on. In the event of fire out-break in houses, market places, and companies etc. contacting the fire department or service by owners or stakeholders of these properties and businesses were very difficult. Sometimes, the damage is done before the intervention of the fire service. In the cases of armed robbery attack, road accidents, and other domestic accidents, delay in communication due to lack of good communication facilities have proved fatal. The rural areas were most times out of reach with the urban areas. People from the rural communities only get or receive information from their urban relatives who took a trip to the rural community and vice versa. In some cases where civil servants are called upon for auditing or rural dwellers who have been retired from service are ask to go for verification, they miss some of these processes due to lack of communication facilities.

Urban dwellers especially the traders, businessmen, industry workers and civil servants spend so much time and energy in reaching out to their suppliers which sometimes disappoints them after taking a trip to the industry or factory. For instance, suppliers and contractors in Rivers State who traveled to the factory in other states sometimes discover that the order was not ready. They waste time and resources due to lack of communication facilities. This study was therefore conceptualized to compare the benefits of mobile phone to users in

rural and urban locations to determine how far it has addressed the enumerated research problems arising from difficulties of communication. The research questions of the study were, what are the socio-economic characteristics of rural and urban mobile phone users, what are the mobile phone networks that were used in the locations and what were the various benefits of the use of mobile phone to the rural and urban dwellers of the study?

In order to tackle the research questions, the study objectives determined the socio-economic characteristics of rural and urban mobile phone users identified the kinds of mobile phone networks that were used in the two locations and determined the benefits of mobile phone in rural and urban locations of the study area. The arising hypothesis of the study was that, there is no significant difference in the benefits of mobile telephone between the rural and urban users of the study area.

2. Materials and methods

The study was carried out in Obio/Akpor Local Government Area (LGA), Rivers State, Nigeria. The area is located between latitudes 4°45'E and 4°60'E and longitudes 6°50'E and 8°00'E (Eludoyin et al, 2011). Obio/Akpor LGA is sharing boundary with Etche LGA on the North, Port Harcourt LGA on the South, Ikwerre LGA and Emohua LGA on the East, Oyigbo LGA and Eleme LGA on the West. The rural locations of the area are predominantly made up of farmers. The urban location of the area is dominated by traders, artisans, contractors, public and civil servants. The rural dwellers produce and trade mostly on agricultural products such as yam, cocoyam, plantain, fruits, cassava, vegetables, etc. They are also involved in fishing. The indigenes are Ikwerre's by tribe, while its non-indigenes are from different parts of the globe. Its indigenes are referred to as the most hospitable people in Rivers State because of their ability to accommodate, protect and care for strangers. This characteristic resulted to the population of the area growing on yearly basis. The present population of Obio/Akpor Local Government Area (LGA) is 464,789 as reported by the population census of 2006 (National Bureau of Statistics, 2006) compared to 263,017 in 1991.

The study area enjoys tropical hot monsoon climate due to its latitudinal position. The tropical monsoon climate is characterized by heavy rainfall from April to October ranging from 2,000 mm to 2,500 mm with high temperature all the year round and a relatively constant high humidity. The relief is generally lowland which has an average of elevation between 20 m and 30 m above sea level. The Local Government Area covers 260 square kilometers and it is the second major centre of economic activities in Rivers State, Nigeria after Port Harcourt. Although the area is rapidly getting urbanized, some of its communities are still in their rural status, especially its Akpor clan. It is made up of four clans or districts, namely, Akpor, Evo, Apara, and Rumueme. Some of the communities that made up these clans or districts are: Akpor with such communities as Rumuekini, Choba, Ozuoba, Rumualogu, Rumuosi, Rumukwachi, Elioparanwo, Egbelu, Rumuolumeni, etc. Evo has the following communities Rumuodara, Rukpoku, Eneka, Rumunduru, Elelenwo, Rumuokwurushi, Iriebe, etc. Communities of Apara Clan are Rumuola, Rumuigbo, Rumuepirikom, Rumuokwuta, Rumuadaolu, etc. Rumueme clan, has such communities as Oro-Owo, Rumuchida, Rumukpakani, Oro-Agbolu, Oro-Akwor, Oroazi, Eligbam, Mgbuosimini, Oroazi, etc.

The population of this study consisted of all mobile telephone users resident in rural and urban locations of Obio/Akpor Local Government Area of Rivers State. A stratified sampling technique was used in collecting data for the study. The first step was the stratification of the Local Government Area into rural and urban areas. The second step was the grouping of the communities. Then, a simple random sampling technique was used in selecting the communities and the respondents of the study. A sample size of 120 respondents were randomly selected and interviewed through the use of questionnaire which were administered by a trained enumerator for this purpose. Sixty respondents were sampled from three communities of Akpor, the clan that has more rural communities. The three communities were Egbelu, Eliparanwo and Rumuolumeni. For urban respondents, one community each was selected from the three urban clans of Evo, Apara and Rumueme. The communities were Elelenwo for Evo clan, Rumuola for Apara clan and Oro-Akwor for Rumueme clan. With the random sampling method, twenty respondents in all were selected from each of the selected community. This gave a total of sixty respondents each from the rural and urban locations making the total of 120 the respondents which were used for the study. Percentage was the descriptive statistics used for data analysis, while the t-test was the inferential statistics which used for the test of hypothesis.

3. Results and discussion:

3.1 Socio-economic Characteristics

Table 1, shows that 53.33% and 50.00% of the respondents were females in rural and urban locations respectively. The age of respondents shows that 63.33% and 48.33% of the respondents were

between the range of 25-34 years in the rural and urban areas respectively. This indicate that more respondents in this age group made more use of mobile phone in rural than urban areas. More results shows that 28.33% and 36.67% in rural and urban areas respectively were between the range of 15-24 years, indicating that more respondents in this young age range made use of mobile phones in urban than the rural areas. These results appear to show that the urban people starts making use of mobile phone earlier in life than their rural counterparts. No respondent was less than 15 years or above 45 years in both the rural and urban areas in the study.

The marital status of the respondents indicate that 66.67% and 70.00% were single in rural and urban areas respectively, showing that the urban mobile phone users were more single than their rural counterparts. This result differed from that of Osadebamwen and Ele (2015) were 84.45% of married respondents used more phones than the single respondents. More findings revealed that 33.33% and 30.00% were married in the rural and urban areas. This indicates that there were more married phone users in rural locations than in urban location. Highest (70.00% and 50.00%) proportion of mobile phone users in both the rural and urban locations respectively were traders.

Table 1. Socio-economic Characteristics of Rural and Urban Mobile Telephone Users.

Characteristics	**Frequency**		**Percentage (%)**	
	Rural	Urban	Rural	Urban
Gender				
Male	28	30	46.67	50.00
Female	32	30	53.33	50.00
Total	**60**	**60**	**100.00**	**100.00**
Age				
Below 15	-	-	-	-
15-24 years	17	22	28.33	36.67
25-34 years	38	29	63.33	48.33
35-44 years	5	9	8.33	15.00
45 above	-	-	-	-
Total	**60**	**60**	**100.00**	**100.00**
Marital Status				
Single	40	42	66.67	70.00
Married	20	18	33.33	30.00
Divorced	-	-	-	-
Total	**60**	**60**	**100.00**	**100.00**
Occupation				
Applicant	3	1	5.00	1.67
Farming	-	-	-	-
Trading	42	30	70.00	50.00
Civil or Public Servant	2	7	3.33	11.67
Apprentice or student	12	20	20.00	33.33
Others	1	2	1.67	3.33
Total	**60**	**60**	**100.00**	**100.00**
Educational Status				
No formal	-	-	-	-
Primary	5	3	8.33	5.00
Secondary	43	36	71.67	60.00
Tertiary	12	21	20.00	35.00
Total	**60**	**60**	**100.00**	**100.00**
Duration of Mobile Phone				
Less than 1 year	12	8	20.00	13.33
1-4 years	31	28	51.67	46.67
5-9 years	17	24	28.33	40.00
Total	**60**	**60**	**100.00**	**100.00**

The result of educational status shows that 71.67% in rural and 60.00% in urban areas have secondary education. This represented the highest education attainment by respondents. The finding agreed with that of Osadebamwen and Ele (2015) among smallholder farmers in the Sub-Sahara agriculture. The duration of 1-4 years of mobile phone use was the highest with 51.67% in the rural and 46.67% in the urban areas. This was followed by those between 5-9 years with 28.33% in rural and 40.00% in urban area in agreement with the study of Osadebamwen and Ele (2015) which had the range of 6-9 years. The result of the socio-economic analyses of the respondents is putting to an end the

propaganda that mobile telephone use is for the rich and city dwellers. These findings have revealed that the rural dwellers are competing with urban dwellers in the use of mobile telephone.

3.2 Kinds of Network of Mobile Phone Used by Respondents

Table 2, shows that most of the respondents made use of MTN as their service provider with 83.33% and 90.00% in rural and urban locations respectively. The finding is in agreement with an earlier study of Agwu and Carter (2014) where MTN accounted for 43% as the major service provider. This was followed by Etisalat with 33.33% in rural and 38.33% in urban areas. No respondent made use of ZOOM, NITEL, O-net, and Multilink service providers in both the rural and urban areas.

The result in Table 3 shows that in rural and urban locations, the highest (100.00%) benefit of mobile phones was to socialize with friends and relations. This result agreed with the study carried out in Uzbekistan in Central Asian Republic by Wei and Kolko (2005) where mobile phones were ostensibly used for keeping in touch with family members and friends. The second benefit with 91.67% in the rural and 86.67% in urban locations respectively was reduced hazard of movement. However, the result shows that while the third major benefit in rural locations was reduced rural-urban migration with 86.67%, the third benefit in urban locations was bank alerts with 83.33% in agreement with the study of Khan & Khan (2012) that mobile phone was useful in enhancing internet and mobile banking in Peshawar City of Pakistan. The fourth benefits in the rural locations with 78.33% each were reduced cost of communication, information on market prices and bank alerts. For urban location users, the fourth benefit was public enlightenment with 81.67%. While the fifth benefit with 73.33% in rural locations was public enlightenment, in urban locations the fifth with 80.00% was reduced rural-urban migration. The result agreed with the report of Narayan (2014) which showed that the pace of additions of mobile phone in some villages of India was faster than in cities. The results indicated that the mean of benefits derivable from the use of mobile phone was higher with 51.19% in rural locations than that of urban locations with 46.86%. This study tends to imply that in this study area, people residing in its rural locations attached more importance to the benefits of mobile phone than their urban location counterparts. A meager proportion of 5.00% of rural and 3.33% of urban made use of mobile phone to have access to agricultural extension information. The result showed that majority of these respondents were yet to benefit from the findings of Rashid and Elder (2009) in Senegal and Ghana which showed that mobile phone is a key tool for empowerment for farmers and fishermen. This connotes that the benefits of mobile phone in extension service are yet to be well realized in the study area. Generally, the findings of this study were in agreement with that of Bond (2010) which revealed that mobile phone is beneficial in maintaining relationships, contributing to reinforced peer ties and discourages rural-urban migration. Unlike before rural dwellers were always eager to visit the cities, now with mobile phone, they travel to cities without boarding a vehicle. Mobile phones have greatly reduced communication costs, thereby allowing individuals and firms to send and to obtain information quickly and at a cheaper cost on a variety of economic, social and political matters.

Table 2. Kinds of Network of Mobile Phone Used by Respondents

Service Provider	Frequency		Percentage (%)	
	Rural(n=60)	Urban(n=60)	Rural	Urban
MTN	50	54	83.33	90.00
GLO	13	15	21.67	25.00
ETISALAT	20	23	33.33	38.33
ZOOM	-	-	-	-
STARCOM	2	1	3.33	1.67
NITEL (MTEL)	-	-	-	-
O-NET	-	-	-	-
VISAFONE	2	4	3.33	6.67
AIRTEL	7	8	11.67	13.33
MULTILINK	7	8	11.67	13.33

Table 4 shows that there is no significant difference in the benefits of mobile phone between rural and urban users. Using the paired sample test (T-test) to test the hypothesis, the calculated t (2.767) was greater than the tabulated t (2.262). Hence, the null hypothesis was rejected and the alternative was therefore accepted. The test, showed a statistical difference between rural and urban use of mobile phone in the area at p-value 0.022 ∠ 0.05. The implication of the result was that the benefits derived from the use of mobile telephone were not the same between rural and urban operators. The rural location dwellers appeared to attach more importance to the benefits derivable from mobile telephones than the urban location dwellers.

Table 3. Benefits of mobile phone

Benefits	Frequency		Percentage (%)			
	Rural(n=60)	Urban (n=60)	Rural	Ranking	Urban	Ranking
Socialization with friends and relatives	60	60	100	1st	100.00	1st
Reduced cost of communication	47	42	78.33	4th	70.00	7th
Advertisement of products	19	19	31.67	11th	31.67	14th
Reduced hazard of movement	55	52	91.67	2nd	86.67	2nd
Information on market prices	47	43	78.33	4th	71.67	6th
Access to agricultural extension	3	2	5.00	15th	3.33	19th
Job creation and employment	21	23	35.00	10th	38.33	12th
Internet browsing	34	39	56.67	9th	65.33	9th
Mobile banking	5	2	8.33	13th	3.33	19th
Bank alerts	47	50	78.33	4th	83.33	3rd
Reinforcement of peer ties	19	16	31.67	11th	26.67	15th
Self employment	39	42	65.00	6th	70.00	7th
Sense of security	34	26	56.67	9	43.33	10th
Income generation	35	41	58.33	8th	68.33	8th
Business networking	17	25	28.33	12th	41.67	11th
Reduced rural-urban migration	52	48	86.67	3rd	80.00	5th
Invitation of fire service	4	10	6.67	14th	16.67	17th
Public enlightenment	44	49	73.33	5th	81.67	4th
Monitoring of election	21	21	35.00	10th	35.00	13th
Narrowing rural-urban divide	38	8	63.33	7th	13.33	18th
Reducing crime by reporting	4	13	6.67	14th	21.67	16th
Total Scores			1,075		984.00	
Mean Scores			51.19		46.86	

Table 4. Summary of T-test Showing the Difference in the Benefits of Mobile Phone +++ween Rural and Urban Users.

	Mean	Std Deviation	Paired Std Error Mean	Differences 95% Confidence Interval of the Difference Lower	Upper	t	Df	Sig (2 tailed)
Urban users	46.86	5.90325	1.86677	.94307	9.38893	2.767	9	.022
Rural users	51.19							

4. Conclusion and Recommendations

The study has shown that the use of mobile telephone is beneficial to both the rural and the urban residence of the study area. However, those residing in the rural locations were seen to attach more importance to the benefits of mobile phones than their urban location counterparts. The first and second benefits in the use of mobile phone which were the same for the two locations were socialization with friends and relatives and reduced hazard of movement. While the third main benefit for rural locations was reduced rural-urban migration, for the urban locations, it was bank alerts. The least benefit made from the use of mobile phone in the area was in accessing agricultural extension information. The study recommends more use of the mobile phone for information transfer between agricultural extension agents and farmers.

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۲٤ مرداد ۱۳۹٤ :ارسال پاسخ داوری
۲۷ شهریور ۱۳۹٤ :دریافت نسخه اصلاحی
۲۸ شهریور ۱۳۹٤ :پذیرش

مطالعه قیاسی شناسایی فواید استفاده از تلفن همراه در بین کاربران روستایی و شهری در منطقه اوبیا/آکپور

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چکیده

این مطالعه به طور قیاسی به شناسایی فواید استفاده از تلفن همراه در بین کاربران روستایی و شهری در منطقه اوبیا/آکپور استان ریورز کشور نیجریه پرداخته است. از روش تصادفی طبقه‌ای و ساده جهت نمونه‌گیری ۶۰ نفر از روستانشینان و ۶۰ نفر ازشهرنشینان استفاده شده است. یک پرسشنامه ساختاریافته جهت جمع‌آوری داده‌ها و آزمون تی برای آزمون فرضیات استفاده شد. بر اساس نتایج حاصل مشخص شد که ۵۳/۳۳٪ و ۵۰٪ از پاسخگویان به ترتیب در مناطق روستایی و شهری زن بودند. همچنین بیشترین فراوانی افراد در محدوده سنی ۲۵ تا ۳۴ سال بودند. به ترتیب ۷۰ و ۶۶/۶۷ درصد از کاربران شهری و روستایی مجرد بودند. بیشترین فراوانی افراد به ترتیب ۵۱/۶۷ و ۴۶/۶۷ درصد در مناطق روستایی و شهری در گروه کاربرانی بودند که از ۱ تا ۴ سال از تلفن همراه استفاده می‌کردند. ۹۰ درصد از کاربران شهری و ۸۳/۳۳٪ روستایی از خدمات MTN استفاده می‌کردند. کلیه کاربران روستایی و شهری مهمترین فایده تلفن همراه را برقراری روابط اجتماعی با وابستگان و دوستان می‌دانستند. نتایج آزمون تی نشان داد که بین بهره‌مندی از تلفن همراه در مناطق روستایی و شهری اختلاف معنی‌داری وجود دارد. دسترسی به اطلاعات ترویج کشاورزی کم‌اهمیت‌ترین فایده‌ای بود که توسط کاربران روستایی و شهری اعلام شد. بهبود ارتباطات بین کارشناسان ترویج کشاورزی و کشاورزان از طریق وسایل ارتباطی نظیر تلفن همراه باید مورد تأکید برنامه‌ریزان قرار گیرد.

کلمات کلیدی: مقایسه، فواید، تلفن همراه، مناطق روستایی و شهری