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## **Rural-Urban Differentials in the Attitude of Global Systems of Mobile Communication (GSM) Consumers to Merits and Demerits of GSM Technology in Ogun State, Nigeria**

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### **ABSTRACT**

*The advent of the Global System of Mobile Communication (GSM) in Nigeria has become the order of most day-to-day activities; however, consumers of GSM services through the use of cellular phones are faced with numerous problems in making use of the GSM technology. This study examined the attitude of respondents to the merits and demerits inherent in the use of cellular phones in rural and urban Ogun State of Nigeria. 70 respondents were randomly selected and interviewed in two local government areas of the State using a well-structured questionnaire, out of which 66 data set were eventually found useful. Data were collected and analyzed using simple descriptive [averages and percentages] and Chi-square statistics. Gender distribution shows significant difference in both locations at 5% probability level ( $p < 0.05$ ), however the respondents were predominantly male. Significant proportion of the urban dwellers (at 5% probability level i.e.  $p < 0.05$ ) were more learned (formally) than the ones in the rural area while the distribution of vocation of respondents was significantly different in both location at 1% probability level ( $p < 0.01$ ) with most respondents being farmers in the rural area. Both rural and urban respondents believed cellular phone use is advantageous with a slightly higher index for urban location than for the rural location. Furthermore, respondents in the urban location viewed cellular phone technology as disadvantageous with respect to health implications indicating a slightly higher index than for the respondents in the rural location. Therefore, it was recommended that more attention should be paid to educating the populace on the safe use of cellular phones in all locations of the study area.*

### **INTRODUCTION**

The world is changing at a fast pace and according to Oxelhein (1998), this has been attributed to globalization which is brought about by technological revolution (Ashton & Stacey, 1995) and increased investment in information technology (Stewart, Coulson, & Wilson, 2007). Information has been identified as one of the prime movers for the economic activities of production and exchange. Information is determinants of organizational change. Hence, every individual as well as organizations need information about environmental events, be it economic, social, political or cultural. Information serves as a base for competence development (Hamrefors, 1996), however the process of gathering information is not without difficulties (Frishammar, 2002). Therefore, the advent of the Global System of Mobile Communication (GSM) in Nigeria (in 2002/2003) has agreeably become the order of most day-to-day activities.

This is because communication is said to be one of the important aspect in human existence (Madu & Adeniran, 2002) 'until you speak nothing speak for you'. As the world is getting computerized and more sophisticated through the inventions of modern technological gadgets, GSM among others cannot be over-emphasized. Consumers of modern technology including GSM are faced with numerous problems in making use of the technology. These range from acceptability to perceived cost saving, convenience and added value (Mackay, Parent, & Geminio, 2004; Kimery & McCord, 2006; Laukkanen, 2007; Mallat, 2007; Chen & Nath, 2008). Hence this study examined the attitude of respondents to the merits and demerits inherent in the use of cell phones (CP) in rural and urban Ogun State of Nigeria.

## **METHODOLOGY**

The study was carried out in Urban and Rural areas in Ogun state of Nigeria. According to Adegbite (2003), Ogun state was created in 1976. Ogun state is situated within the tropics with landmass of 1,640,926 square kilometers with 20% being forest reserves. The state shears boundary with Republic of Benin (Dahomey) in the West, Lagos state and Atlantic ocean in the south, while in the East is bounded by Ondo state and Oyo state in the North. Ogun state has six ethnic groups with Yoruba as the general language of communication. Majority of the people practice Islam, Christianity and traditional religion. Ogun state has a population of about 3,728,000 people (Omonijo, Ajayi, & Agande, 2007). Farming is the main occupation of the people. Rice, cassava, yam, maize and banana are the major food crops grown in the study area. While the main cash crops are cocoa, kola nut, rubber and palm produce. Ogun state has a educational institutions, industries as well as health facilities and public utilities such as police station, commercial Banks, judiciary, etc. Two local governments were randomly selected and 70 respondents interviewed using structured questionnaire. However 66 information sets from the 70 were eventually found useful. Data on socio-economic and perception parameters were collected and analyzed using simple descriptive (averages and percentages) and Chi-square statistics.

## **RESULT AND DISCUSSION**

Majority of the respondents in both the rural and urban location of the study area were males, however, there was a significant difference between the two locations in terms of gender distribution at 5% probability level ( $p < 0.05$ ). There were more male respondents in the rural than urban areas. Average age was higher in the rural area than the urban and the age was significantly different for the two locations at 1% probability level ( $p < 0.01$ ). This could be attributed to rural-urban drift. Furthermore, there was significant difference in marital and educational status ( $p < 0.05$ ) of respondents in the two locations. There were more uneducated respondents as well as those with low level of formal education in the rural area than in the urban. Though there were more Christians than Muslims in both the urban and rural areas there was no significant difference between the respondents in terms of religion distribution (Table 1). There was a significant difference in the vocational distribution of respondents ( $p < 0.01$ ) in the two locations. Majority of the rural dwellers as well as an appreciable number of urban dwellers in the study area were farmers. These could have implications on the belief of respondents in the study area with regards to the merits and demerits of the use of CP in the GSM technology.

**Table 1: Respondents' Socio-economic Parameters by Location.**

<i>Variable</i>	<i>Urban</i>	<i>Rural</i>	<i>Total</i>
<b>Gender</b>			
<i>Male</i>	23	32	55
<i>Female</i>	7	4	11
<b>Total</b>	<b>30</b>	<b>36</b>	<b>66</b>
<i>X<sup>2</sup>-Statistic</i>	5.60** (0.02)	-	-
<i>*Age</i>	30.67	55.58	52.02
<i>t-Statistic</i>	19.52*** (0.000)	-	-
<b>Marital Status</b>			
<i>Married</i>	20	34	54
<i>Single</i>	10	1	11
<i>Widowed</i>	0	1	1
<b>Total</b>	<b>30</b>	<b>36</b>	<b>66</b>
<i>X<sup>2</sup>-Statistic</i>	7.33** (0.03)	-	-
<b>Educational Status</b>			
<i>None</i>	0	19	19
<i>Primary</i>	5	10	15
<i>Secondary</i>	15	4	19
<i>Tertiary</i>	5	2	7
<i>Adult</i>	5	1	6
<b>Total</b>	<b>30</b>	<b>36</b>	<b>66</b>
<i>X<sup>2</sup>-Statistic</i>	11.05** (0.03)	-	-
<b>Religion</b>			
<i>Islam</i>	10	16	26
<i>Christianity</i>	20	20	40
<b>Total</b>	<b>30</b>	<b>36</b>	<b>66</b>
<i>X<sup>2</sup>-Statistic</i>	0.26 (0.61)	-	-
<b>Vocation</b>			
<i>Trading/Self employed</i>	15	2	17
<i>Farming</i>	15	34	49
<b>Total</b>	<b>30</b>	<b>36</b>	<b>66</b>
<i>X<sup>2</sup>-Statistic</i>	24.54*** (0.000)	-	-

NB:- \*\*\*  $\Rightarrow$  Sig. at 1%; \*\*  $\Rightarrow$  Sig. at 5% and \*  $\Rightarrow$  Sig. at 10%.

Source: Field Survey 2009

Table 2 revealed that the six attitudinal variables measured were positive in both rural and urban locations though the urban consumers have higher parameter values than the rural. This indicates that the urban consumers probably believed that cellular phone use is of greater value than the rural dwellers do. However, there was no significant difference between the two locations in terms of respondents' believe about the advantages derivable from CP use.

**Table 2: Respondents' attitudinal variables on cell phone merits by location.**

<i>Variable</i>	<i>Urban</i>	<i>Rural</i>	<i>X<sup>2</sup>-Stat.</i>	<i>Prob.</i>
<i>Saves life</i>	1.00	0.93	0.95	0.62
<i>Earning capacity</i>	0.90	0.84	3.99	0.41
<i>Job Opportunities</i>	0.93	0.87	2.66	0.62
<i>Investment opportunities</i>	0.90	0.85	2.51	0.47
<i>Information source</i>	0.93	0.86	0.75	0.96
<i>Save cost</i>	0.93	0.88	0.64	0.89
<i>Reduce risks</i>	0.90	0.87	3.70	0.30

NB:- \*\*\*  $\Rightarrow$  Sig. at 1%; \*\*  $\Rightarrow$  Sig. at 5% and \*  $\Rightarrow$  Sig. at 10%. Source: Field Survey 2009

Table 3 revealed that respondents' attitudinal index on the disadvantages of CP was slightly higher for urban location than in the rural location. However, in the opinion of respondents on CP use causing health injury, the attitudinal index for urban location was significantly different ( $p < 0.05$ ) from the rural location in the study area.

**Table 3: Respondents' attitudinal variables on cell phone demerits by location.**

<i>Variable</i>	<i>Urban</i>	<i>Rural</i>	<i>X<sup>2</sup>-Stat.</i>	<i>Prob.</i>
<i>Cause divorce</i>	0.90	0.78	2.53	0.64
<i>Cause accident</i>	0.93	0.86	0.93	0.82
<i>Injure Health</i>	0.93	0.73	9.84**	0.04
<i>Boost crime</i>	0.93	0.81	1.69	0.64
<i>Kidnapping</i>	0.93	0.83	0.98	0.81
<i>Threat</i>	0.70	0.76	2.61	0.63
<i>Impersonation</i>	0.73	0.77	5.59	0.23
<i>Fraud</i>	0.97	0.81	1.67	0.80
<i>Distraction</i>	0.90	0.74	1.74	0.78

NB:- \*\*\*  $\Rightarrow$  Sig. at 1%; \*\*  $\Rightarrow$  Sig. at 5% and \*  $\Rightarrow$  Sig. at 10%. Source: Field Survey 2009

## CONCLUSIONS

The respondents are predominantly male in both the urban and rural locations and there is significant difference with respect to age distribution ( $p < 0.01$ ). The rural dwellers tend to be older than the urban ones probably due to rural-urban drift. A significant proportion of the urban dwellers were more learned (formally) than the ones in the rural area ( $p < 0.05$ ). There is a significant difference in vocational distribution ( $p < 0.01$ ), majority of the respondents being farmers.

Both rural and urban respondents believed cell phone technology to be advantageous. There is a slightly higher index for urban location than the rural but with no significant difference. However, respondents in the urban location significantly regarded cell phone technology as slightly disadvantageous with respect to health implication than in the rural location ( $p < 0.05$ ). Therefore, less attention need be paid to enlightenment campaigns on the advantages of cell phone technology while more attention should be paid to educating the populace on the safe use of cell phones especially in the rural locations of the study area.

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