

## Evaluation of Ownership Proclivity to Use of Mobile Phone among Market Women in Rural Areas in Lagos State

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### Abstract

This study is focused on the evaluation of ownership proclivity to use of mobile phone among market women in rural area in Lagos state. The study was carried out in the markets of three rural Local Government Areas of Lagos State namely: Badagry, Epe and Ibeju-Lekki. A total of 118 respondents were used and 100 responses were retrieved for analysis. Questionnaire was used to collect information. Data collected were analysed using frequency count and simple percentage. The hypotheses were formulated and analysed with the used of chi square and Pearson's product moment correlation (PPMC) respectively. Results of the study indicate that on the attitudinal aspect, 89% of the respondents were aware of the existence of mobile phone, 82.2% of them were had positive attitude towards the use of mobile phone. Also on the impact, majority of the respondents (83.95%) use mobile phone mobile reduce the running cost of their businesses, 64.4% uses mobile phone to influence the profitability of their business. On its effect on income generation, 65.3% of the respondents had been able to improve their standard of living through the use of mobile phone. Also majority of the respondents (64.4%) uses mobile phone to generate information about their business. Chi square analysis of hypothesis 1 shows that Age, marital status, level of education and religion are significantly related to the use of mobile phone ( $p > 0.5$ ). Correlation analysis of hypothesis 2 shows that, the ownership and the use of mobile phone ( $r = 0.152$ ,  $p = 0.005$ ) are significantly related to the day to day activity of rural market women ( $r = 0.513$ ,  $p = 0.000$ ).

### Keywords:

Mobile phone, Use, Attitude, Rural market and woman

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### **Background to the Study**

In Nigeria, there has been a dramatic growth of over 4000 percent in nine years—increasing from a mobile penetration rate of approximately mobile subscribers per 1,000 inhabitants in 2002 to 586 mobile subscribers per 1,000 in 2011, (International Telecommunication Union, 2011). Reports from the Nigerian Communications Commission noted that current mobile subscribers in Nigeria are more than 100 million—106,892,750—as of September 2012 (Nigerian Communications Commission 2012). Considering this rapid diffusion of mobile phones, there is a potential impact on socioeconomic development if developing countries can harness this technology. This potential impact becomes pronounced when the information needs of micro-enterprises are taken into consideration. According to the Global System for Mobile Communications, there were more than 2.5 billion mobile phone subscribers all over the world as at 2008. It is projected that by 2010, mobile phones will cover 90 percent of the planet (GSM, 2008). This suggests that the developed and the developing world's are becoming more and more connected into a global network. As mobile phone use becomes more prevalent especially within the developing world, it is pertinent to ask: Is the mobile phone a viable tool for economic growth and a facilitator of sustainable livelihoods among those engaged in agricultural-based livelihood activities?

In Nigeria, Jagun, Heeks, and Whalley (2007) proposed that for mobile phones to be fully useful in the economic sphere, mobile phones must be inserted in previously existing relationships of trust.

Nigerian women represent about 65 percent of the active population, and despite their multidimensional roles are forced into the informal economy and thus into poorer livelihoods. Charles Uyinowen, Ibukun, and Ayodele (2007) noted that there were enormous opportunities for m-commerce in Nigeria based on the rate of diffusion of mobile devices. As Africa's most populated country, the rapid diffusion of mobile technologies presents a higher potential of harnessing the technology for development concerns and providing lessons for other developing countries. Hence, this study is meant to investigate the following research questions

1. What is the attitude of rural women in the use of mobile phones?
2. How has the use of these mobile phones impacted on the day to day activities of rural women?
3. What are the effects of mobile phone on rural women household income generation?

### **Research Hypotheses**

The following null hypotheses were developed and tested in the study.

**Ho<sub>1</sub>:** There is no significant relationship between the use of mobile phones and selected personal characteristics of rural market women.

**Ho<sub>2</sub>:** There is no significant relationship between the use of mobile phone (GSM) and the day to day activity of rural market women

### **Research Methodology**

The study was conducted in Lagos state. Lagos state has twenty (20) local government area, out of which three (3) of these local government are considered rural. The local

government areas are Epe, Badagry, and Ibeju Lekkilocal government areas. The population of the study therefore is composed of rural market women of the selected local government. A multistaged sampling procedure was used to select all the three local government area. Secondly the population of rural market women was taken from the registered rural market women in the three local government areas. Thirdly, ten percent of these women were then sampled to make a total sample of one hundred and eighteen (118) respondents in all for the study.

## **Results and Discussions**

### **The Attitude of the Rural Women toward the Advent of Mobile Phone (GSM)**

Table 1 below shows the result of the attitude of the rural market women toward the advent of mobile phone (GSM). It was observed that most of the rural market women were amazed at the existence of mobile phones and were willing to accept the introduction of mobile phone. These two attitudinal statement were jointly ranked 1<sup>st</sup> with an average weighted mean score of 3.94 concurrently. This implies that awareness and wiliness are two main factors that predispose the respondents to the ownership and use of the mobile phone as the predominant mode of business communication in the developing countries (Soutel, Scott, Garforth, Jain, Mascarenhas and McKemey, (2005). These are closely followed by fact that the use of mobile phones by rural market women and their attitude to its usage increases profitability and enhance growth which was ranked 2<sup>nd</sup> with an average weighted mean score of 3.91. This implies that the respondents' attitude towards the advent of mobile phone (GSM) is positive and this had significantly affected their market sales. This is supported by Jensen (2007) that found that mobile phone usage reduced price variations, reduced waste and increased consumer and producer welfare. Similar results were examined in a detailed survey conducted by Salia, Nsowah, and Steel (2011) on mobile phone usage and fishermen in Nigeria. Findings pointed out that mobile phone usage facilitated fishermen to increase their profits; expand their markets by gaining more customers, felt more secure at sea and remained in closer touch with their both families and fishermen. The statement that "rural market women were able o the use of mobile phones" and "rural market women were able to manage mobile phones were ranked 3<sup>rd</sup> and 4<sup>th</sup> and 5<sup>th</sup> respectively with an average weighted mean score of 3.77 and 3.14 and 3.12 respectively. This was supported by Mpogole, Usanga, and Tedre, (2010) who asserted that mobile phone usage has spread across the World at a stunning space with different tribes and race adapting to its use without hesitation. The attitudinal statement with the least ranked mark (6<sup>th</sup>) has a weighted mean score 3.06 with the statement that "The market women need little or no literary education on the use of mobile phone". This means that, most of the rural market women need no or little education, to use mobile phones. Although this is a factor that hinders utilization but does not totally prevent utilization. By this, it can be deduce the level of interest in the ownership and usage of mobile phone is affected by education from the findings of DAS 2012.

**Table 1: Below Indicate the Attitude of the Rural Women toward the Advent of mobile phone (GSM)**

S/N	Attitudinal Statement	SA		A		U		D		SD		WMS	Rank
		No	%	No	%	No	%	No	%	No	%		
1.	Most of the rural market women are aware of the existence of mobile phone	19	16.1	86	72.9	3	2.5	7	5.9	3	2.5	3.94	1 <sup>st</sup>
2.	The rural market women were able to adapt to the use of mobile phone.	11	9.3	52	44.1	13	11	26	22	16	13.6	3.14	4 <sup>th</sup>
3.	The market women need little or no literary education on the use of mobile phone.	21	17.8	34	28.8	9	7.6	39	33.1	15	12.7	3.06	6 <sup>th</sup>
4.	Rural market women were able to manage mobile phone devices.	18	15.3	41	34.7	14	11.9	27	22.9	18	15.3	3.12	5 <sup>th</sup>
5.	The rural market women are willing to accept the introduction of mobile phone.	44	37.3	51	43.2	3	2.5	12	10.2	8	6.8	3.94	1 <sup>st</sup>
6.	Most rural market women have positive attitude to the use of mobile phones.	24	20.3	62	52.5	17	14.4	11	9.3	4	3.4	3.77	3 <sup>rd</sup>
7.	The use of mobile phones by rural market women and their attitude to its usage increases profitability and enhance growth.	34	28.8	63	53.4	2	1.7	14	11.9	5	4.2	3.91	2 <sup>nd</sup>

**Source:** Field Survey, 2015

**WMS= weighted mean score**

### **The Impact of mobile Telecommunication (GSM) on the day to day Activities of Rural Market Women**

Table 2 below shows the result of the perceived impact of mobile telecommunication (GSM) on the day to day activities of rural women. It was revealed that the use of mobile reduce the running cost of their businesses. This was adjudged 1<sup>st</sup> in ranking with a weighted mean score of 2.20. this is supported by Jagun, (2008) who stated that, "The ubiquity, localization and personalization features of mobile phones can lead to disintermediation where traders may bypass or avoid, "middlemen" and shorten distribution channels to transact directly with potential customers and trading partners and therefore reduce running cost. The fact that "the use of mobile phones by rural market women helps update them on market trends"; "rural market women make more sales when using mobile phone for business" and that they were able to target market demand which were ranked 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> with a weighted mean score of 2.06, 1.81 and 1.73 respectively. This means that with real timely information as an economic resource, women may transact their business efficiently this was asserted by Aneele, Shaw and Vicziany, (2008). The statement that "the use of mobile phone influence their profitability" was ranked 5<sup>th</sup>

with a weighted mean score of 1.63. This is supported by Abraham. (2007) who asserted that Mobile phone usage had transformed women enterprise reduced intermediaries, increased productivity and improved business processes. More so, the statement that “the use of mobile phones by rural market women helps them meet the demands of their customers” was ranked 6<sup>th</sup> with a weighted mean score of 1.55. This implies that the usage of mobile phones in women enterprises have lessened and continues to lessen down the magnitude of size, space and time in the enterprise sector (Bjorn and Mototay, 2011). While the statement that “Mobile phone helps them prevent marketing risk was ranked the least (7<sup>th</sup>) with a weighted mean score of 1.26. This implies that the use of mobile phones by the rural market women have positive impact on the day to day activities.

**Table 2: Below Indicate the perceive Impact of mobile Telecommunication (GSM) on the day to day activities of rural women**

S/N	Perceived Impact	Great Extent		Moderate Extent		Low Extent		No Extent		WMS	Rank
		No	%	No	%	No	%	No	%		
1	The rural market women make more sales when using mobile phone for their businesses	31	26.3	47	39.8	26	22	14	11.9	1.81	3 <sup>rd</sup>
2	The rural market women were able to target market demand	34	28.8	39	33.1	24	20.3	21	17.8	1.73	4 <sup>th</sup>
3	The use of mobile reduce the running cost of their businesses.	48	40.7	51	43.2	13	11	6	5.1	2.20	1 <sup>st</sup>
4	The use of mobile phone influence their profitability	24	20.3	52	44.1	16	13.6	26	22	1.63	5 <sup>th</sup>
5	Mobile phone helps them prevent marketing risk.	18	15.3	27	22.9	41	34.7	32	27.1	1.26	7 <sup>th</sup>
6	Use of mobile phones by rural market women helps update them on market trends	21	17.8	87	73.7	6	5.1	4	3.4	2.06	2 <sup>nd</sup>
7	The use of mobile phones by rural market women helps them met the demands of their customers.	34	28.8	39	24	24	20.3	21	17.8	1.55	6 <sup>th</sup>

**Source:** Field Survey, 2015

### Effect of Mobile phone on Rural market women income Generation

The effect of mobile phone on rural women income generation was assessed and the result in table 3 revealed that 46(39%) indicates they agreed that through the use of mobile phone

rural market women can meet their household demand financially, while the remaining 72 (61%) of the respondents indicates they disagree. This is supported by Albu and Scott (2001) who opined that mobile telephony can be an asset for development by enabling the rural poor to respond more efficiently to external economic opportunities or threats and also in line with McNamara, (2003) who stated that mobiles phones can empower the rural poor to lobby for and demand a higher priority for themselves through an increase in access to information which can assist in sound decision-making.

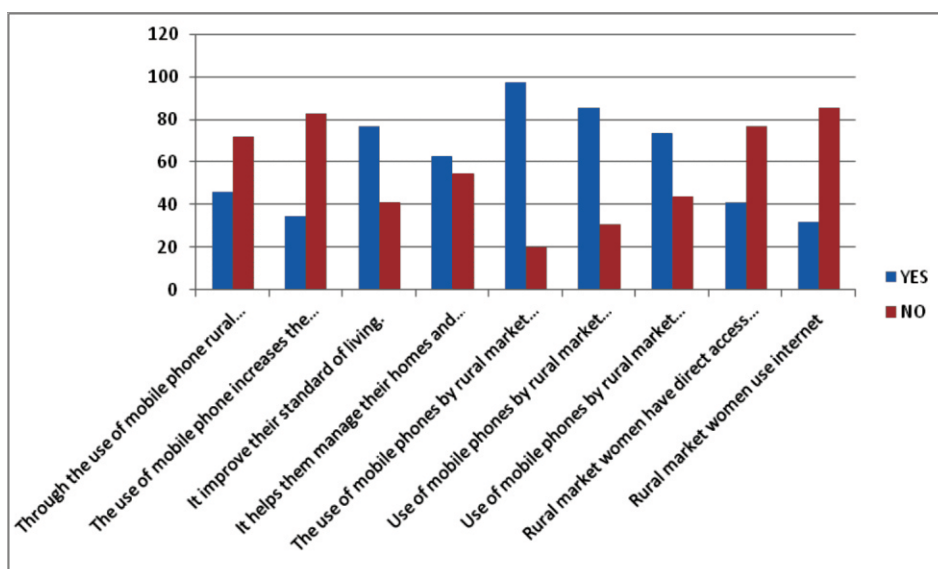
Also, it was revealed that 35(29.7%) of the respondent indicates they agreed that the use of mobile phone increases the wealth of their household while the remaining 83 (70.3%) of the respondents indicates they disagree. It was also revealed from the table that, 77(65.3%) of the respondents indicates they agreed that use of mobile phone improve their standard of living while, the remaining 41(34.7%) of the them disagreed. This is in consistent with Donner (2008) who stated that mobile telephony can serve as a development tool to the extent that it accelerates, complicates, and interacts with the process of economic development in general. This is because communication within and between institutions responsible for making livelihood decisions is substantially enhanced, those who are served by these institutions benefit by the improvement of local capacities enabled by the acquisition and exchange of information (FAO, 2003).

More so, it was also revealed from the table that 63(53.4%) of the respondents indicates that they agreed that mobile phone helps them manage their homes and businesses effectively and efficiently while the remaining 55(46.4%) of them disagreed. It was also revealed from the table that 98(83.1%) of the respondents indicates they agreed that the use of mobile phones by rural market women helps in proper distribution of products while the remaining 20(16.9%) of them disagreed. This is also in line with the findings of Aminuzzaman, Baldershein, and Jamil (2003) who indicated that women's access to mobile phones increases their income generation opportunities thus giving them a sense of economic and social empowerment. Furthermore, the table also asserted that 86(72.9%) of the respondents agreed that the use of mobile phones by rural market women helps them in getting information required by their customers while the remaining 32(27.1%) of them disagreed. The table also show that 74(62.7%) of the respondents indicates they agreed that the use of mobile phones by rural market women helps them to diversify their services to customers while the remaining 44(37.3%) of them disagreed. Furthermore, the table also revealed that 41(34.7%) of the respondents indicates they agreed that rural market women have direct access to information to enhance their income while the remaining 77(65.3%) of them disagreed. This implies that in rural part of a country, commerce often is conducted at a slow pace, mainly through face-to-face contacts, and business transactions are often done through intermediaries (Jagun, Heeks, &Whalley, 2007). Finally the table also revealed that 32(27.1%) of the respondents indicates that they agreed to the fact that with the use of mobile phone rural market women were able to use internet in their business activities, while the remaining 86(72.9%) of them disagreed. By making women economically independent, mobile phone increases women's autonomy in family and in community (Lee, 2009).

**Table 3: Below Effect of Mobile phone on Rural Women Income Generation**

S/N	Effect of mobile phone on Rural Market women income Generation	Yes		No	
		Number	Percent %	Number	Percent %
1.	Through the use of mobile phone rural market women can meet their household demand financially.	46	39	72	61
2.	The use of mobile phone increases the wealth of their household.	35	29.7	83	70.3
3.	It improves their standard of living.		65.3	41	34.7
4.	It helps them manage their homes and businesses effectively and efficiently.	63	53.4	55	46.4
5.	The use of mobile phones by rural market women helps in proper distribution of products	98	83.1	20	16.9
6.	Use of mobile phones by rural market women helps them in getting information required by their customers.	86	72.9	32	27.1
7.	Use of mobile phones by rural market women helps them to diversify their services to customers.	74	62.7	44	37.3
8.	Rural market women have direct access to information to enhance their income with mobile phone	41	34.7	77	65.3
9.	Rural market women are able to make use of internet in their business activities.	32	27.1	86	72.9

**The Bar Graph below Indicate the effect of mobile Phone on Rural Women income Generation**



**Fig.1 Bar chart on the effect of mobile phone on rural market women income generation**

**Source:** Field Survey, 2015

### Chi-square Analysis between Respondents' Personal Characteristics of Rural Market Women and their use of mobile phone

There is no significant relationship between selected personal characteristics of rural market women and their use of mobile phone. Chi-square was used to test the differences between the personal characteristics of rural market women and their use of mobile phone. Age, marital status, level of education and religion are significantly related to the use of mobile phone ( $p > 0.5$ ). This implies that there are more rural market women of a particular age range using mobile phone. Also, there are more married rural market women using mobile phone than their unmarried counterparts. It can then be deduced that responsible individuals are more in number among rural market women using mobile phone. Similarly, individuals of higher level of education are using mobile phone more than individuals with low level of education. It can be inferred here that higher level of education make it more interesting to people to use mobile phone. This is in line with the finding of Muto and Yamano (2009) who opined that cell phones help thousands of people in developing countries learn to read using their mobile phones.

**Table 4: Chi-square analysis between respondents' personal characteristics of rural market women and their use of mobile phone**

Demographic Characteristics	$\chi^2 - \text{cal}$	$\chi^2 - \text{tab}$	Df	Remark
Sex	21.04	3.841	1	Significant
Age	32.06	9.488	4	
Marital status	19.46	7.815	3	
Education qualification	22.98	7.815	3	

### Correlation analysis between the use of mobile phone and day to day activities of rural market women

Table 5 shows that there is a significant relationship between the use of mobile phone and day to day activities of rural market women with correlation  $r = 0.152$  for advent of mobile phone, and  $r = 0.513$  for the day to day activities of rural market women at 0.005 level of significance. This is supported by Ugwu, (2009) who opined that Information is the pivot around which development revolves. Provision of current and up-to-date information to the rural populace on the various activities such as current market prices of goods, market locations, simple food processing, weaving, dying, fashion and designing, agricultural practices, etc. is a sine qua non for increased productivity and income growth. Generally, information provision increases the forcefulness of the local users as well as their standard of living (Ugwu, 2009).

**Table 5: Correlation analysis between the use of mobile phone and day to day Activities of rural market women**

Variable	Correlation value (r)	p-value	Decision
Advent of mobile phone	0.152	0.005	Significant
Day to day activities of rural market women	0.513	0.000	Significant



## Conclusion

This findings made realized that 105(89%) of the respondents were aware of the existence of mobile phone and 86(82.2%) had positive attitude towards the use of mobile phone. Also, the information gathered shows that majority of the respondents 99(83.95%) use mobile phone to reduce the running cost of their businesses and 76(64.4%) uses mobile phone to influence the profitability of their business. In addition, the study shows that 77 (65.3%) of the rural market women had been able to improve their standard of living through the use of mobile phone. There is a significant correlation between the use of mobile phone and day to day activities of rural market women in Lagos state. This research has generated valuable insights and lessons for research and practice. The study shows that, regarding micro-trading, the rural market women use mobile phones primarily during-trade activities. Which include monitoring goods and pricing strategies, scheduling deliveries and addressing inquiries and complaints. Some rural market women, though few in number, innovatively use mobile phones to calculate purchases and send text messages to customers and other rural market women. This innovative use of mobile phones in micro-trading is influenced by the pre-knowledge of the rural market women which may have been developed through formal education and/or social networks.

## Recommendations

Based on the above findings, it is recommended that:

- i. Rural market women should embrace new innovative technologies that are effective enough to enhance their business.
- ii. An affordable services and availability of infrastructure such as disposal of electricity, transport and proper security mechanism in the society should be provided as major requirement of Mobile phones by the Mobile network provider / Government.
- iii. Owning and access to mobile phone and Internet can enhance the trading actives of the rural market women such as increase information, opportunities and interaction among customers and other trading partners. Hence, policies related to universal access to mobile telephony and to community access to internet at affordable prices should be provided.

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