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# The Influence Factor: A Study of Advertising and Use of Mobile Telecommunication Networks of Students from two Universities in Ghana

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**ABSTRACT:** *This study examined whether advertising influences the usage of telecommunication networks, using the students of the University Of Professional Studies Accra and Wisconsin University College in the Greater Accra Region as a point of reference. It was also to ascertain the media through which tertiary students received most advertising messages. The study found that, advertising was not the only variable that influenced respondents to use a particular network and that when matched up against other variables, 'service quality' comes on top as the number one influencing agent ahead of advertising. The traditional media was identified as the media through which most advertising messages are received. Finally, the study identified that advertising is a necessary but not sufficient condition that influences switching between telecommunication networks.*

**Keywords:** *Advertising, Influence, Mobile Telecommunication Networks, Universities, Ghana*

## I. INTRODUCTION

Communication is a very important human activity that is pivotal to the success of every human institution. Over the years, telecommunication has contributed to making communication easier and faster. The telecommunication industry is one of the most prominent and dynamic areas of business in Ghana. The industry is a vital component of Ghana's economic growth in view of the global nature of the world. According to an article in the *News Time Africa*, the telecommunication industry in Ghana over the three years up to 2010 generated revenues of about GH¢ 1.8 billion a year. In 2010, the six telecom

companies namely MTN, Vodafon, Airtel, Tigo, Kasapa and Glo together made a capital expenditure of GH¢ 700m out of the country's gross capital formation of GH¢ 10bn. The taxes and levies paid by those companies, at GH¢600m added up to 10% of the government's income of GH¢6bn for 2009. All together, the industry contributed GH¢900m out of Ghana's GDP of GH¢4.8bn [16].

In the early 1990s, the telecommunication industry in Ghana was in a state of monopoly, Ghana Telecom being the only company operational in Ghana. However, the sector was liberalised in the mid 1990's as a strategy to acquire funds for expansion, improvement and to attract foreign investment capital for both new operators and the incumbent by way of privatisation [10]. A study done on the effects of privatisation and regulation on tele-density by [15], [18] and [7] showed that, deregulation was the government's means of increasing service quality and operational efficiency by liberalisation of the telecommunication industry, opening the economy for the entry of other privately-owned companies. Deregulation here means that the restrictions to market access and entry of private companies into the telecommunication industry were lifted.

Currently there are six telecommunications networks operating in Ghana, namely, MTN, TIGO Vodafon, Airtel, Glo and Expresso. The National Communications Authority, (NCA) statistics showed

that, the total cellular/mobile voice subscriber base in Ghana as at January, 2013 stood at 25,618,427 [20]

Mobile telephony companies use competitive advertising as one of the means to woo targets. They engage in advertising through various media, coming out with different themes of advertising almost every quarter. According to [12], advertising is any paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor through print media (newspapers and magazines), broadcast media (radio and television), network media (telephone, cable, satellite, wireless), electronic media (audio tape, video tape, video disc, CD ROM, webpage) and display media (billboards, signs, posters).

The major aim of advertising is to create positive attitude towards the advertisement and the brand until the consumer purchases that product and through this positive attitude, it creates an emotional response in the mind of the consumer [11]. It is believed that telecommunication network companies would advertise for this purpose.

This study intended to examine the influence of advertising on the usage of telecommunication networks among tertiary students in Accra. The research team decided to focus on tertiary institutions due to the reasons that:

- Tertiary students use mobile phones for a wide range of purposes. [2] focused on the behavioural and psychological aspects of cell phone usage among college students and the motivation for using phones included personal safety, financial incentives, information access, social interaction, parental contacts, time management and coordination, dependency, image and privacy management. It can therefore be said that tertiary students through the use of mobile phones patronize telecommunication networks.
- Tertiary students are educated, as such are likely to find it easier to provide needed data without much assistance from the research team.
- Tertiary students are likely to have more time at their disposal to provide needed data for our study as compared to the working class.

Selected institutions included the University of Professional Studies, Accra and Wisconsin University College with the former being a public university and the latter being a private university.

## II. STATEMENT OF PROBLEM

The major aim of advertising is to create positive attitude towards the ad and the brand until consumer purchases that product and through this positive attitude create emotional response in the mind of consumer.

The major aim of advertising is to reach potential customers and create impact on their buying behaviour [3] [1]. It is however not clear whether the use of a particular network is as a result of influence of advertising.

A report from Delta partners, titled “*Ghana Telecommunications Market-perspectives on industry, economic and competitiveness*” dated October, 2011, noted that market leader MTN alone paid GH¢ 415 million being 6.94% of government income for 2010 and 69.4% of taxes and levies from the telecom industry. As such, it is of no surprise that the number of mobile network providers in Ghana has increased over the years due to the industry’s lucrative nature [19]. Telecommunication networks buy slots or airtime on the radio, television, newspapers and other media for the purpose of advertising their products, with the hope of yielding expected returns in the volume of sales of the company.

There is a lot of debate as to whether the intensive use of advertising actually aid in convincing consumers to use one telecommunication network over the other.

## III. OBJECTIVES

The research objectives included:

- To know if advertising influences usage of telecommunication networks.
- To find out the media through which tertiary students receive most advertising messages.
- To ascertain the other variables that influence consumers to use a particular network.
- To discover what causes students to switch between networks.

#### IV. THEORETICAL LITERATURE REVIEW

The set of personal and non-personal activities that are used in communicating the merits of the overall product to the target market [14]. Promotion is also defined by [13] as “activities that communicate the product or service and its merits targeting customers and persuading them to buy”. They went on to state that there are four main promotional tools namely; Advertising, Personal selling, Sales promotion, Public relations.

Advertising plays a very important role in an organization’s quest to communicate with its actual and potential customers. Advertising also serves as an important medium through which customers gain a lot of information about a product or service in making informed decisions. According to [6] advertising is a communication process, a marketing process, an economic and social process or an information process, a public relation and persuasion process depending on the point of view.

Advertising has also been defined by [4] as any paid form of non-personal presentation and promotion of products, services, or ideas by an identifiable individual or organization.

Advertising seeks to differentiate an organization’s products and services from that of its competitors. It also serves as a means of reminding consumers, informing them about the various product lines and lastly, persuading them to make purchase decisions or to use their products and services.

There have been various reports of some telecom companies gaining significant number of subscribers while others suffer loss of subscribers. NCA statistics in July, 2013 had MTN gaining over 204,344 more subscribers in a month (despite its poor service) increasing its subscriber base from 12, 587,804 in June to 12, 792, 148 in July claiming a total of 46.95 per cent of the telecom market share whereas Airtel, Glo and Expresso suffered a plunge. Airtel dropped from 3,118,935 to 3, 117,543, Glo from 1,660,890 to 1, 633,379 and Expresso dropped from 157,828 to 154, 824.

If this is the case there is the need to find out if advertising has a role to play in the choice of mobile network usage and if the reverse is true what the influencing factors are.

#### V. METHODOLOGY

##### A. POPULATION AND SAMPLING SIZE

Respondents were from the two institutions with the University Of Professional Studies, Accra (UPSA) having 100 respondents and the Wisconsin International University College, Ghana having 100 respondents. This was in accordance with the opinion of [8], who justified the selection of the number of samples by describing them as 100 = Fair, 200 = Good, 300 = Very Good.

Undergraduate students from the two universities made up the sample frame specifically the University Of Professional Studies, Accra (UPSA) and the Wisconsin International University College, Ghana. The stratified sampling technique was adopted. The population was partitioned into groups, called strata.

The number of students in each year or level (referred to as a strata) from each institution were multiplied by the population in each frame or institution and subsequently divided by the sample of hundred (100) for each institution. The value obtained for each strata made up the total number of sample for each strata used for the study.

##### B. INSTRUMENTATION

Questionnaires served as the basic data collection instrument. Self-administered questionnaires consisting of both open-ended and close-ended questions were completed by the 200 respondents for the two tertiary institutions. Open-ended questions allowed respondents to express their views about the various advertisements and about the other factors that also influence their choice of one telecommunication network over another.

#### VI. RESULTS

Table 1: Respondent’s preferred network

|          | UPSA      |            | WISCONSIN |            |
|----------|-----------|------------|-----------|------------|
|          | Frequency | Percentage | Frequency | Percentage |
| MTN      | 40        | 40.0%      | 43        | 43.0%      |
| GLO      | 9         | 9.0%       | 4         | 4.0%       |
| VODAFON  | 15        | 15.0%      | 12        | 12.0%      |
| TIGO     | 11        | 11.0%      | 15        | 15.0%      |
| EXPRESSO | 1         | 1.0%       | 0         | 0%         |

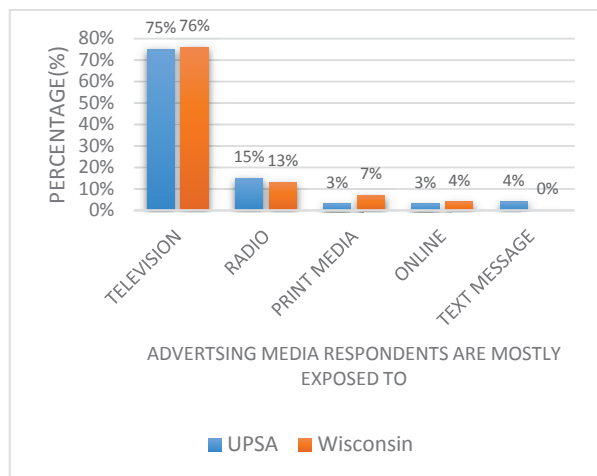
|              |            |             |            |             |
|--------------|------------|-------------|------------|-------------|
| AIRTEL       | 24         | 24.0%       | 26         | 26.0%       |
| <b>TOTAL</b> | <b>100</b> | <b>100%</b> | <b>100</b> | <b>100%</b> |

Source: Survey Data, 2013

The findings above show that for UPSA, 40(40.0%) of 100 respondents selected MTN as their preferred telecommunication network, 24(24.0%) chose Airtel and 15(15.0%) out of the total respondents preferred Vodafon. Also, 11(11.0%) selected Tigo, 9(9.0%) favoured Glo and 1(1.0%) chose Expresso as their preferred telecommunication network. The information depicts that, students of UPSA preferred to use MTN more than any other telecommunication network and Expresso was the least patronised.

In the case of Wisconsin, 43(43.0%) selected MTN, 26(26.0%) preferred Airtel and 15(15%) chose Tigo. Vodafon was selected by 12(12%) respondents, 4(4%) chose Glo. However, none of the respondents of Wisconsin selected Expresso as their preferred telecommunication network. Over all, it can be concluded that MTN is the most preferred telecommunication network among tertiary students studied.

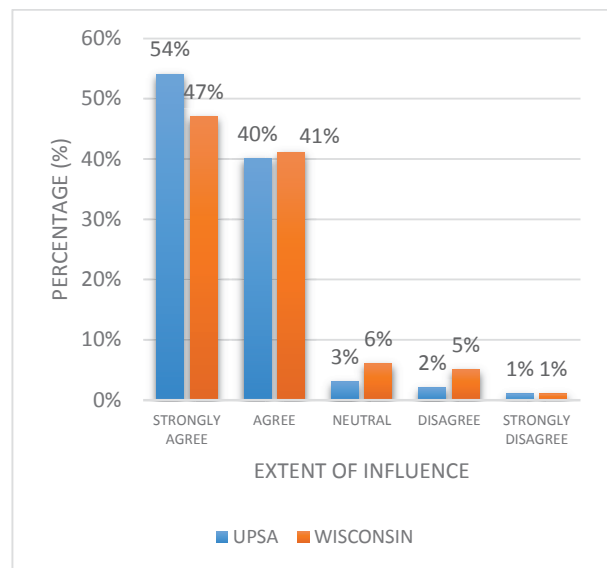
Figure 1: Media by which most advertising messages from telecommunication networks were received.



The chart above provides information about the media by which respondents received most of their advertising messages from telecommunication networks. The findings depict that, 75% of UPSA respondents are mostly exposed to telecommunication advertising on the Television, 15% on the Radio, 3% through Print, 3% online and 4% through Text messages.

A large number of respondents from Wisconsin were also exposed to Television advertising on telecommunication networks, 13% on the Radio, 7% via Print, and 4% through online and no respondent answered to being exposed to telecom advertising through text messages from UPSA. It can finally be asserted based on the above that, in the two tertiary institutions, Television was the media through which they acquired telecommunication advertising.

Figure 2: Influence of advertising on the usage of telecommunication networks among tertiary students



Source: Survey data, 2013

The figure above depicts customers' response to the extent to which they agreed or disagreed that advertising influenced their decision to use a particular mobile telecommunication network. For UPSA, 54% of the students strongly agreed to this notion, a further 40% of them agreed and 3% of UPSA students were neutral and a mere 2% of them disagreed. The least category were those who strongly disagreed with just 1%. In the case of Wisconsin 47% of the respondents strongly agreed, 41% of them said they agreed. A further 6% were neutral and 5% disagreed. The minority was those that strongly disagreed with just 1%.

Cumulatively the findings show that majority of the respondents strongly agreed that advertising influenced them to use a particular mobile telecommunication network.

Table 2: Frequency and Proportion of variables that influence respondents to use a particular telecommunication network.

| Answer               | UPSA   |       |            | WISCONSIN |       |                  |
|----------------------|--------|-------|------------|-----------|-------|------------------|
|                      | Fre q. | %     | % of cases | Fr eq     | %     | Percent of cases |
| Advertising          | 11     | 7.7   | 11.0       | 7         | 5.2   | 7.0              |
| Peer group influence | 6      | 4.2   | 6.0        | 11        | 8.2   | 11.0             |
| Service quality      | 34     | 23.9  | 34.0       | 41        | 30.6  | 41.0             |
| Sales promotion      | 12     | 8.5   | 12.0       | 8         | 6.0   | 8.0              |
| Number of contacts   | 40     | 28.2  | 40.0       | 29        | 21.6  | 29.0             |
| Affordability        | 22     | 15.5  | 22.0       | 21        | 15.7  | 21.0             |
| Wide coverage        | 17     | 12.0  | 17.0       | 17        | 12.7  | 17.0             |
| Other                | 0      | 0     | 0          | 0         | 0     | 0                |
| Total                | 142    | 100.0 | 142.0      | 134       | 100.0 | 134.0            |

Source: Survey data, 2013

When respondents were asked to select from among a list of variables including advertising, quite a number of respondents admitted advertising was a major factor for choice of mobile network but other variables (most used network of personal contacts, service quality, affordability of airtime and sales promotion) proved to be more pronounced. UPSA students were more influenced by the number of personal contacts using a particular network; 28.2% of them were influenced by the number of contacts using a particular network.

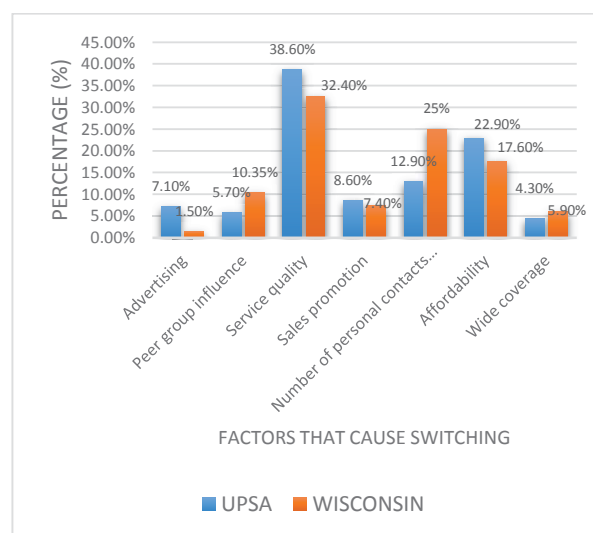
A further 23.9% of them were greatly influenced by the service quality of the network provider. Affordability also came up as also influencing them to an extent, with 15.5% of UPSA students asserting to this. 12.0% of them agreed that the wide coverage area of the network provider influenced them to use a particular network. The least influencing agent for UPSA students was advertising which only influenced 7.7% of them in using a particular network. In the case of Wisconsin students, 30.6% of the students were influenced by service quality of a particular network provider and 21.6% of them were influenced by the most used network of personal contacts.

A further 15.7% of them chose affordability of a mobile network as their influencing agent. An additional 12.7% of Wisconsin students are largely influenced by the span of network coverage. Peer group influence was not the least influencing agent, but only managed to influence 8.2% of Wisconsin students in choosing a particular telecommunication network. A mere 8.2% of these students made their decision based on sales promotion activities and advertising was the least with 5.2% of Wisconsin students being influenced by advertising. Cumulatively, it can be admitted that service quality and most used network of personal contacts were the two agents that influenced students the most.

### A. RESPONDENTS' SWITCHING BEHAVIOUR

It was found that more than half (70.0%) of UPSA students agreed to having switched between telecommunication network while (30.0%) selected the negative. Almost the same number of respondents (69.0%) from Wisconsin also said they had switched between telecommunication networks. A mere 31% of Wisconsin respondents disagreed to this, representing the minority. En masse, more people had ever switched between mobile networks than those who had not.

Figure 3: Reasons for switching



Source: Survey data, 2013

The chart above depicts the reasons that caused respondents to switch between networks. Among UPSA students, service quality was the main reason for switching; 38.6% of them agreed to this. A further 22.9% of them said affordability was the main reason

for the switch, 12.9% were for most used networks of personal contacts and 8.6% of them said it was due to sales promotion. A sheer 7.1% of them said it was advertising and lastly, 4.3% of UPSA students said the widest network coverage influenced them to switch. In the case of Wisconsin students, the majority said service quality influenced them to switch. This majority was made up about 32.4% of Wisconsin students.

The findings also showed that in contrast to UPSA students the second most influential agent that caused switching is the number of personal contacts using a particular network with 25% of them agreeing to it. 17.6% of them said affordability and 10.3% of them saying peer group influence caused them to switch. A mere 7.4% chose sales promotion and 5.9% admitted to wide network coverage being the main agent that influenced them. The smallest was advertising with only 1.5% of Wisconsin students agreeing to this. So in both instances, service quality was on top whereas advertising was the least checked.

## B. DISCUSSION OF RESULTS

One of the objectives was to find out which media respondents received telecom advertising messages and which was the most popular. Television was identified by the majority of the respondents as the media through which they gained their telecommunication advertising followed by the radio. This means that, customers mainly receive their telecommunication advertising messages through the traditional media. This finding is in line with a study conducted by [21]. It was discovered that television is the dominant medium for media consumption and advertising. It can be concluded that television is a prominent medium through which customers acquire advertising messages.

On whether respondent thought advertising was a strong influence in the usage of telecommunication networks, the majority of the respondents agreed to the fact that advertising was a strong influencing agent that made them to use a particular telecommunication network. This finding is in line with the work of [5], who concluded that advertising performs an important role in the behavioral stage of the purchasing process of products and services with high customer involvement, intermediate customer involvement as well as lower customer involvement products and services. On the other hand, a noteworthy point emanating from this study was that although respondents admitted advertising was a strong influence, the answer as to whether it has actually moved them the patronize a particular

mobile network was not the same as was admitted. Service quality was what respondents voted for from among other variables, including advertising. That is to say if a host of variables exist, it is likely that service quality will be the top choice for the use of a telecommunication network.

According to [9], advertising works by attracting switchers and this effect is exerted primarily by the exposure that takes place between the previous and current purchase occasion. This means that advertising possesses the ability to cause customer switching behaviour. This study, on the other hand, confirmed that advertising was not the only factor that influenced choice and use of a particular telecommunication network.

A number of other variables such as service quality, sales promotion, peer group influence, affordability of the network airtime, most used networks of personal contacts and the telecommunication network coverage were identified and even more pronounced. It was discovered that among these variables, service quality was the number one factor in the choice of a particular telecommunication network. A study by [17] on the influence of service quality on customer satisfaction (study of Starbucks Coffee - Indonesia) confirms that service quality had a positive effect on customer satisfaction and loyalty.

However, considering the fact that MTN gained 204,344 more customers just within a month, despite its poor service as indicated in the NCA July 2013 report, could it be that subscribers stick to particular network because they do not have any other options or that although it is tagged as having poor service quality it probably is "the best among equals". Could it also be that mobile network subscribers are just stacking to their subscribed networks and not giving room for change since it is expected that when service is poor subscribers should rather migrate to other networks. This may be a worthy focus for future research.

## VII. CONCLUSIONS

Based on the findings of the study, the following conclusions can be established:

- MTN is the most used telecommunication network among tertiary students.
- Television is the paramount medium through with tertiary students are exposed to telecommunication advertising.
- Tertiary students switch between telecommunication network and the reason

for this behavior was confirmed as the result of service quality.

- Tertiary students do not use a particular telecom network not only because of advertising but prefer to use a network based on its service quality than their advertising campaigns. Therefore, tertiary students place more value on service quality in their choice of telecom network not advertising which may be quite persuasive.

## VIII. RECOMMENDATIONS

Although there is influence in the area of most used networks of personal contacts and probably, advertising, telecommunications network companies should focus more on the effectiveness of their services. Providing quality service would influence individuals to use the network and cause existing customers to stay loyal to them. The fact that more respondents believe service quality is an influence goes to say that subscribers yearn for improved service and would switch to the service which offers them what they want.

Since television was selected as the medium through which most tertiary students gained a large proportion of telecommunication advertising, the creative aspect of TV ad production should be enhanced to appeal to target the more and advertising slots must be properly scheduled to reach targets with campaign messages. This will help curb losses due to misplaced advertising.

## IX. FUTURE SCOPE

This study revealed that service quality has influence on the usage of telecommunication network and that customers tend to switch networks. It would be useful that further studies be conducted on how telecommunication network service providers can improve their services to gain the loyalty of their targets.

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