

THE ROLES OF YOUTHS AND SOCIAL MEDIA MARKETING IN THE CONSUMPTION OF NUTRITION INFORMATION ABIA STATE, NIGERIA

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Abstract

Malnutrition is one of the major developmental concerns of policy makers in recent time and is believed to persist due partly to lack of access to quality nutritional information. Our study examines issue of how social media marketing can be leveraged to enhance consumption of nutritional and dietary information. The study specifically seeks to ascertain various SM platforms available and their level of usage; and effect of SM on consumption of nutritional information. Using data from a sample of 240 respondents obtained through multi-stage sampling procedure, and analyzed with descriptive statistics and logistic regression analysis, Facebook, WhatsApp, Twitter and Instagram were the most widely used medium among respondents to seek for information. Furthermore, the regression result revealed that sex, marital status and awareness of nutrition information, location and recommendation from experts influence the use of SM for the consumption of nutritional information. However, the use of SM does not have an effect on the consumption of nutritional information due to other interest such as fashion. The major militating factors in the area are lack of awareness of nutritional information and poor economic power to buy internet data bundle. The study recommends that since the influence of SM is positive, firms can leverage on its youthful appeal to design nutrition sensitive product that appeal to youth interest. In doing this they must find a strong appeal that mesh into youths existing lifestyle to improve consumer familiarization, knowledge and change behaviour for a positive outcome.

Keywords: Nutrition, Social Media, Marketing, Information,

1. INTRODUCTION

Food and nutrition insecurity are one of the major developmental challenges facing the world. This is further compounded by population growth and market forces which threaten ability of the food system to deliver safe, nutritious and sustainable food. Estimates shows that globally more than 815 million people are affected by chronic hunger and over 2 billion people (that is one in three) persons lack essential micro micronutrient in their food, which causes death of more than 3.5 million children (Meenakshi et al, 2010). This has severe implication on social, economic

and other performance indicators and capacity to achieve Sustainable Development Goals (SDGs) and Agenda 2030 since food is at the center of SDGs. Malnutrition is a food related developmental challenges and have persisted due to poor knowledge of available nutrition and dietary information (especially as it relates to access to information in the food system) and high level of poverty in societies (Agwu, 2011; Pambo, Oheno & Okello, 2014).

Market information is often mentioned in the context of market failure and by extension inability of food system to deliver better outcome. Evidence has shown that information asymmetry is common in competitive market environment and could exposure consumers to harmful choices such as malnutrition, leading to lack of confidence in ability of the business to meet consumer expectations. Traditionally, consumers have relied on information from firms to make brand decision and this has come with severe cost because firms control their sources. In recent time, there has been shift in communication trends with changes in consumption pattern; increase concerns for food safety, nutritional products, demand for environmental performance indicators and increase support that a better food system requires knowledge and effective communication to achieve a positive outcome. This requires tweaking the old model that places control on only the hand of a few to a more liberalized system that is innovative and inclusive.

Although evidences have shown that the campaigns to educate consumers about nutrition have intensified, there are rather limited evidence-based signs of positive outcome. This implies that only very few impacts have been recorded given the percentage of vulnerable people in Nigeria. For instance, evidence showed an increase of 68% of households reached between 2014 and 2015 with Pro-vitamin A cassava seedlings (Saltzman et al., 2013) for food production but regrettably many households in Nigeria are not aware of biofortified cassava food and its nutritional value. Unfortunately, most of the channels of information have not been adequate to deepen awareness creation and steer overwhelming participation of the vulnerable in nutritional outcome. Nwachukwu and Ezech (2007) described the situation to imply weak grassroots governmental and private information dissemination system.

Conventionally, companies have used traditional communication methods such as verbal and non-verbal communication mediums to communicate nutritional information. But the world has seen improvement in technology advancing human communication and interaction. Information and Communication Technology (ICT) and tools such as social media (SM) has improved two-way flow of communication and complemented traditional methods. SM leveraged on identified limitations of the old system to enhance value of information, thus enhancing access to information and pushing for transition from poor information culture to rich, good and adequate nutritional information/orientation to promote healthy living.

In fact, SM has become a large repository of knowledge and discussion on several topics from relationship, fashion to business, politics and health (Oteh et al., 2019) and is considered an educational platform with signs of positive outcomes. According to Oteh and Eleodinmuo (2016) the core benefit of this educational vehicle is its ability to bring about behavioral change by providing a platform for shared information and experience. Therefore, social media and other communication platforms have advanced understanding and attitude towards sustainable living practice around the world (Andrew, 2015) and more importantly highlighting available of resources to consumers to make inform decision about foods and agricultural products.

SM is a group of online applications that allow for the creation and exchange of user-generated content. This includes collaborative projects, blogs or micro-blogs, content communities, social networking sites and virtual gaming or social worlds. It harnesses rich depository of information which in most cases are fake given the uncontrolled nature of this medium. According to Njoroge (2013), this technology is prone to abuse and have been somewhat misused by today youth in terms of seeking relevant information as regards healthy living. The pivotal role of SM and its influence among youth is of major interest to researchers and hence this study profile consumer demographics challenges that hinders access and communication ability of SM in advancing nutritional information. The specific objectives of this study are:

1. Identify the various SM platforms and their level of usage
2. Determine the effect of SM on the consumption of nutritional information among youths.

Based on the foregoing, we hypothesized that social media does not have an effect on the consumption of nutritional and dietary information among youths in Abia state.

2. LITERATURE REVIEW AND THEORETICAL BACKGROUND

Every day, people are confronted with situations that demand choice from arrays of alternatives and they require the right mixture of information to make informed decision. However, they are limited by convergence of economic, cultural, and political factors which have continued to hinder ability of people to pay attention to certain stimulus in the environment. In Nigeria, people are overloaded with information from different source that enhances the practice of “psychic economy” – picking and choosing among stimuli to avoid being overloaded (Solomon, 2011) by volume of information. Whilst factors such as poverty and hunger are mostly obvious; the less obvious factor is attitudinal factors that influence people's perception and their ability to make rational choices. The precise evaluation of the

situation centers on bounded rationality rather than absolute rationality according to Simon, (1947). Bounded rationality is the idea that when individual makes decision, the level of information limits their rationality, the mental limitation of their minds and the time available to make such decision. From the perspective of rational choice model, rationality is absolute and excludes interference caused by the personal characteristics of the decision maker, because every decision optimizes the relation between goals and means (Anotnio, 2000). In practice, absolute rationality is a difficult idea to implement because of conflict arising from managing goals and means; and other bundles of influences. This gap creates a loophole for bounded rationality to overshadow absoluteness. Logically, it becomes more appropriate to rather emphasize relative rationality based on the view of Tim (2009).

Based on the above line of reasoning, perception is fueled by information available or provided to the decision maker, which in most cases can be substantially different from the objective reality (Robbins, 2008; Agbonifoh et al., 2007). Information that is provided to consumers can play an important role in their perception of products and this count especially for products with unobservable attributes (Smed, 2012). The absoluteness of decision is dependent on the limit of information available to enable especially consumer make informed decision. Provided information can increase people's knowledge about the product/services concerned (Schaar, 2016).

Social media is a modern information gateway that provided a platform for shared interaction and communication between consumers, business-to-consumer and business-to-business. In fact, SM is more than just a communication tool; it has become an education platform that advances learning and personal development. In recognition of the important role of SM McKee (2010) proposed a SM model called the SM trinity model. This is the model that guides our study because it touches on main essence of communicating value. The major constructs in the model are networking, conversation and community.

1. Conversation creates opportunities which creates value
2. Community: Where one can communicate for a wider audience. A place with participative communication
3. Networking: Where one can participate in groups relevant to the industry (LinkedIn) connecting with other professionals. Connect with friends and family and even their own brands, musicians, restaurants and so on.

The main aim of this model is to enhance visibility of the brand through mediums that promotes its presence and relevance in conversation blogs such as Twitter, community technologies such as Facebook or YouTube, but also in networking websites like LinkedIn. In this study, the authors see the socio-economic and other factors as moderating factors to integrate the construct into a full communication

building platform that advance value for participants. This thinking is made in the light of the fact that conversation, building network and community cannot stand alone without product and people profile. This may serve as a springboard to design tolerable policies to influence how SM delivers positive nutrition outcome. Although there are other theories that explains technology acceptance such as health belief model and technology acceptance model, the SM trinity model explains the basic reasons why people use social media, which is very relevant to our study. We are also fascinated by the inclusion of online community in this theory given that it is one of the ways consumers are building relationship and improving brand recognition perception. In recent time, firms are capitalizing on the value of these communities to increase familiarization, build newer and deeper relationships with customers (Li & Xie, 2012). Generally, people use these communities to communicate, build relations and promote their businesses using various social media platforms (Jang et al., 2008). These communities are extension of peer groups that help in behavior formation and influence product decision. They serve as gateways for people to network and discuss issues that are particular to their circumstances. This makes the selection of this model very apt for this study.

2.1.1 Empirical review

The influence of SM on behaviour has been a subject of interest among social policy makers. Several researchers have written extensively on the subject matter. Several researchers such as Adum et al, (2016), Njoroge (2013) Larsen (2010) have extensively research on the subject matter. For instance, Njoroge (2013) conducted a study that sought to find out the impact of social media among the youth on behaviour change in Kenya. Their study revealed that the youth in Kenya use social media a lot and prefer technology enabled means of communication than the traditional method. Adum et al. (2016) investigated social media participants' response to health posts on epidemics. The study revealed that in time of pandemic, there is stronger desire to rely on SM for information and guidance. The study conducted by Larsen (2010) on how adolescents find and make sense of nutrition information revealed that nutrition-specific information literacy, media literacy, health literacy, and scientific literacy created challenges in stages of the information-seeking process hence overall engagement with online nutrition information. Alonge et al. (2017) carried out a study to evaluate factors that affect use of social media for HIV and AIDS communication among federal university undergraduates in south western Nigeria. Their study revealed that the use of these social media sites for HIV and AIDS information communication was influenced by privacy and neutrality. It also showed that majority of the undergraduates affirmed that HIV and AIDS information on social media platforms was very useful because it facilitates access to quality tips on HIV.

3.0 Methodology

The study adopted survey research design given that it enables researches gain insight into the behavior of the target respondents. The study area was Abia state particularly Michael Okpara University of Agriculture, Umudike (MOUAAU). The University is one of the three specialized universities of agricultural in Nigeria established in 1992. The choice of this MOUAAU is both for convenience and strategic reasons. It is a federal university with students from different cultural and ethnic backgrounds, which gives the study the needed diverse opinion to make informed conclusion. Importantly, more than 90 percent of students in MOUAAU fall within the age bracket of youths. This makes the choice of the university very apt for this study.

The population of the study comprised of all students of MOUAAU, but the precise number of these students were unknown due to data protection issues. The population therefore is infinite. Given an infinite population, as it is the case in this study, Creswell (2014) suggested that respondents could be chosen based on their convenience and availability. Therefore, the study adopted a multi-stage sampling technique. The first stage involved a purposive selection of six (6) Colleges from the nine (9) Colleges in MOUAAU. The second stage involved a random selection of four (4) departments, one from each of the six Colleges, while the third stage involved random selection of forty (40) students from different levels comprising 20 students for each gender. This aggregates the total sample size for this study at 240. Data was sourced with the use of questionnaire designed, pretested and validated by experts to ensure reliability with instrument and subject of interest.

Analytically, the study employed descriptive statistics to present the results of the study while logistic regression analysis was employed to analyze data. The data was analyzed with the aid of Statistical Package for Social Science (SPSS) version 20.

In determining the factors that influence the use of social media for the consumption of nutritional information among youths in Abia State, logistic regression method was used. We considered the probability that a youth will use SM for nutritional information and analyzed it as a function of some socio-economic and other factors. The cumulative logistic probability model is econometrically specified as:

$$P_i = F(Z_i) = F(\beta + \sum \beta_i X_i) = \frac{1}{1 + e^{-Z_i}}$$

However, the implicit form of the model is given as

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + b_6 X_6 + b_7 X_7 \dots b_n X_n + \epsilon_1$$

Where Y_i = social media information usage (1=uses, 0= otherwise)

X_1 = Sex (Male = 1; Female = 0)
 X_2 = Age grade (Years)
 X_3 = Level of education (Years)
 X_4 = Marital status (1 = Married; 0 = Single)
 X_5 = Household size (Number of dependants)
 X_6 = Access to internet facilities (Access = 1; No access = 0)
 X_7 = Social Network (Groups = 1, Peer influence = 0)
 X_8 = Usage of social media platforms (Yes = 1, No = 0)
 X_9 = Awareness of Nutrition and dietary information on social media (Yes = 1, No = 0)
 X_{10} = Locality (Urban = 1; Rural = 0)
 X_{11} = Income (Naira)
 X_{12} = Recommendation by experts (Yes = 1, No = 0)
 X_{13} = Subscription cost (Naria)
 β_i = The Parameters
 U = Error term

4.0 RESULT AND DISCUSSIONS

Demographic/socio-economic profile of respondents

Table 1: Socio-economic characteristics of the Respondents ($n=149$)

Variables	Frequency	Percentage
Sex		
Female	56	37.6
Male	93	62.4
Marital Status		
Married	52	34.9
Single	97	65.1
Age		
16 – 20 years	17	11.4
21 – 25 years	95	63.8
26 – 30 years	13	8.7
31 years & above	24	16.1
Mean = 23.93		

Educational Qualification		
Primary	7	4.7
Secondary	1	0.7
Graduate	90	60.4
Post graduate	51	34.2
Household Size		
1 – 3	45	30.2
4 – 6	83	55.7
7 – 9	14	9.4
10 & above	7	4.7
Mean = 4.41		
Income		
0 – 20,000	123	82.6
20,001 – 40,000	6	4.0
40,001 – 60,000	6	4.0
60,001 & above	14	9.4
Mean = 16321.28		

Source: Field survey, 2018

Table 1 presents the socio-economic characteristics of the respondents under the following: age, income, education, household size, marital status and gender. The table showed that a dominant proportion of the respondents are millennial. This is possible because universities are dominated by people within such age brackets. Also, majority of the student has an appreciable income saved through various economic activities and savings. This could explain why it is possible for them to purchased data and internet services. It takes an individual with high income to demand and obtain more services due to cost and availability caused by fluctuations and unstable network services. Observation shows that in some cases, these students have more than one mobile phone networks to gain access to the internet. The higher level of education in this result means the students are literate and rational thinkers. This high literacy level also implies wide knowledge of and exposure about technology; this influences their desire and hunger for information on product/service choices despite economic pressures.

Available social media platforms and usage rate among the respondents

There are various social media platforms available on the internet that specializes on different kind of activities. Their usage depends on a lot of things which includes awareness of such platforms, recommendations from friends/family, personal interest (hobby) etc. Like any other information, it is necessary to identify the most used of SM to enable decision makers design strategies to reach a wider spectrum of

youth with message about a given phenomenon. Table 2 presents the various SM platforms and usage among youths.

Table 2: Social media platforms and usage among youth ($n=149$)

Platforms	Very Often	Often	Not Often	Mean	
Facebook	56.8	31.8	11.5	2.45	Accept
WhatsApp	59.3	35.2	5.5	2.54	Accept
Twitter	68.4	19.5	12.0	2.56	Accept
Instagram	37.3	41.8	20.9	2.16	Accept
YouTube	35.3	38.3	26.3	2.09	Accept
Google+	33.3	45.0	21.7	2.12	Accept
LinkedIn	23.0	30.1	46.9	1.76	Reject
Snapchat	23.9	26.1	50.0	1.74	Reject

Source: Field Survey Data, 2018

Cut-off score: If > 2.0 = Accept as more used, < 2.0 = otherwise reject

Result of Table 2 shows that Twitter, WhatsApp and Facebook are the most widely used SM platforms in the study area. This result is in line with *a priori* expectation. It re-confirmed the study by Njoroge (2013) who has a similar outcome. This implies that these platforms have wider acceptance among millennial and could be used as important vehicle and marketing communication strategy to enhance nutritional information. This study does not in any way imply that the other platforms are not in use, but youths spend more time in these more.

Factors that influence use of social media for consumption of nutrition information

Using logistic regression, this section examined the factors that influence consumption of nutrition information. These factors were obtained based on empirical and *a priori* expectation such as socio-economic and other demographic factors of the respondents. The result reported the log likelihood ratio to be 132.188, Cox and Snell R^2 as 0.334, Nagelkerke R^2 as 0.460 and Chi square of 60.564 with p-value of 0.000 which shows that there is a significant difference between the observed and the predicted values of the outcome. This indicates that the model fits quite reasonably. The model prediction success rate was 65.1% which indicates that the model fit the data at an acceptable level.

The result shows that sex, marital status and awareness of nutrition information on social media were significant but with negative signs while location and recommendation by experts were significant and positive factors influencing the use

of social media for the consumption of nutritional and dietary information among youths in Abia State.

The result of sex (gender) confirms that more females are likely to use SM to harness information about nutrition information than their male counterpart. This agrees with Nishi et al (2015), who observed that there is high inequality among genders affinity with SM. Accordingly, females spend more time daily on social networking sites. Although married people have need for nutritional information, the singles are more likely to use the SM to search for more information than them. This could be due in part to family pressure and economic situations that may not allow married people to purchase Smartphone and/or data as frequently as they would have like to do. This result is in support of Elphinston and Noller (2011), who observed that social networking sites create an environment with potential situations that may evoke feelings of jealousy between partners, harming the quality of their relationship.

Table 3: Factors that influence the use of social media for information consumption

Variables	B	Standard Error
Sex	-1.404	0.489**
Age	0.019	0.052
Education	0.050	0.605
Marital status	-2.182	0.494***
Household size	-0.097	0.118
Access to internet	19.269	40193.048
Computer literacy	22.606	40192.859
Usage of social media	-0.737	0.600
Awareness	-1.165	0.624*
Location	1.728	0.556**
Income	0.000	0.000
Recommendation by experts	1.112	0.672*
Subscription cost	0.000	0.000
Constant	-42.605	56841.419
log likelihood ratio	132.188	
Cox & Snell R-Square	0.334	
Nagelkerke R-Square	0.460	
Chi-square	60.564***	
Model Prediction success (MPS)	65.1%	

Source: Field Survey, 2018

*** = Significant at 1%, ** = Significant at 5%, * = Significant at 10%

It is easier to use services that one is aware of and/or received from trusted source. The negative significance of awareness is not in line with *a priori* expectation.

However, it lends credence to the fact that the priority of youths in the use of SM is not nutritional information but mainly for fashion, news items and businesses. This may prevent them from searching for information that will enhance their health issues and so on. The result of recommendation by expert is in line with *a priori* expectation. Experts' advice is crucial in the war against malnutrition; hence their views are respected by people, because they are knowledgeable in the subject matter. Finally, the significant of location shows that network signal is vital. It determines whether people access SM in their location. This result implies that youths in the urban areas are more likely to use social media to consume nutritional and dietary information than the ones in the rural area because of availability of network in their locations.

Based on result that usage of social media was not significant; the null hypothesis was accepted and the alternative hypothesis rejected that Social Media does not have effect on the consumption of nutritional and dietary information among youths. This result agrees with a similar study by Oteh et al (2019) who observe that youths mostly use SM to seek most information about fashion and news report and the major factors that motivate youths to seek information from social media in the study area were learning and personal development. This is a huge challenge to marketing communication strategist to fashion a new communication model that connect youths to information that will deliver safe, affordable and nutritious outcome, as part of marketing efforts to achieve goal 2 of sustainable development goal.

Problems militating against the use of SM for nutritional information

Although, SM has proven to be a good channel to push nutritional information, it is nonetheless confronted with challenges that may hinder its effectiveness in this regard. The result highlights the importance of awareness creation. This is the only way to steer up an over whelming participation of youth in the fight against malnutrition. According to Kotler and Armstrong (2008), it is not enough to design a good product, price it attractively and distribute through a good outlet, you must effectively communicate the existence. This highlights the vital role awareness creation plays in changing behaviour of youth about the existence of this platform for nutrition and dietary transition. Cost of data is still an issue about the vulnerable in our society. This inhibits their ability to access information through this channel. Others are that due to uncontrolled access, SM is a purveyor of fake news. This has continued to create concern among policy and social commentators.

Table 7: Problems militating against the use of SM for information

Problems	Frequency	%	Rank
Lack of awareness of nutritional information on SM	143	95.97	1 st
Lack of money to purchase data	120	80.54	2 nd
Issue of reliability of news on SM	101	67.79	3 rd
Poor network quality	93	62.42	4 th
Fake news issues in Nigeria	85	57.05	5 th
Lack of interest on SM	80	53.69	6 th

Source: Field Survey Data, 2018

5.0 CONCLUSION AND RECOMMENDATIONS

SM is a revolutionary communication system with evidences of advancing business, politics, advocacy, investment and not very recent nutrition and health outcome. SM and its platforms have continued to enhance shared experience and values that improve connections between and among people. Our study provides evidences that SM platforms such as Facebook, Twitter and WhatsApp stand out as the most widely used in the study area, which can be complemented with traditional marketing communication methods to enhance nutrition literacy. In designing communication model that connect the market with nutritional messages, marketers must take cognizance of socio-economic and demographic profile of the people, especially gender, marital status, nutrition awareness, location and recommendation from experts. These variables serve as intervening factors to the basic construct in the social media trinity model. Therefore, designing SM policies must consider importance of these factors given their ability to influence and build acceptance among people. With increase in fake news in Nigeria, regulatory agencies, services operators and other stakeholder need to work in synergy to improve trust through sources that are reliable to nutrition literacy and education.

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