THE EFFECT OF EBOLA VIRUS DISEASE ON BUSH MEAT CONSUMPTION IN CALABAR MUNICIPAL, NIGERIA

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ABSTRACT
This paper presents an analysis of the effects of Ebola virus disease on consumer purchase of bush meat in Calabar Municipal, Cross Rivers State. They study aimed at finding out if social campaigns on Ebola, group information on Ebola and personal knowledge of Ebola had an effect on purchase and consumption of bush meat in local restaurants and the contributions of various partners in implementing the campaign, and analyzed whether the issue had been adequately publicized. Data used for this study are from both secondary and primary sources. The set of secondary sources of data helped some theories related to the study and the variables of the study. Using the primary data, questionnaires were drawn and analyzed using the multi regression method to bring out relevant information about the reaction of consumers of bushmeat towards the effect of Ebola on consumer purchase of bush meat in local restaurants. Findings showed that, the campaign achieved its objectives. Results indicated that social campaign on Ebola, group information on Ebola and personal knowledge of Ebola led to the reduction of bush meat purchase and consumption. It was therefore recommended that the information and communication departments of the Ministries of Health and of Agriculture, Animal Industry and Forestry should be active in dispatching information to journalists in a timely manner and government should seek to disseminate information to people assuming the role of opinion leaders as quickly as possible. It was concluded that a change of business line should be encouraged to business ventures that will be vulnerable should there be another occurrence of the Ebola outbreak.
Key words: Ebola, social campaign, group effect, personal knowledge

INTRODUCTION
Our health is shaped by many environmental subsystems, including our family, community, workplace, cultural beliefs and traditions, economics, the physical world, and our web of social relationships. Ebola has impacted the lifestyle of people, and has brought about a total change in their food consumption habits. These changes are products of the restrictions placed on the consumption of all types of bush animals. It has not been proven the natural reservoir of Ebola virus or the manner in which the virus first appears to human, however, researchers have come up with a hypothesis that the first patient became infected through contact with an infected animal (Centre for Disease Control and Prevention, 2002; Obinna, 2014).

The Ebola virus, for which the primary host is suspected to be fruit bats, has been linked to bush meat (Nasi et al, 2008). Between the first recorded outbreak in 1976 and the largest in 2014, the virus has transferred from animals to humans 30 times (Hogenboom, 2014). In 2014, the Ebola outbreak in West Africa originated in Gueckedou in south-eastern Guinea and was linked to bush meat after it was learned that the first case came from a family that hunted two species of fruit bat, Hypsignathus Monstrosus and
Epomops Franqueti (Williams, 2012). A two year old child from that family died from the disease on December 6, 2013. The campaigns then stated that if you know that the Ebola virus is introduced in one area, it’s probably an extra good time to stop eating bush meat.

Furthermore, when thinking about ways in which the Ebola outbreak has impacted on consumers, it pays to look at the dining-out craze. Many people eat restaurant meals that are prepared from bush meat several times per week. There are literally hundreds of places for them to choose from, but research indicates that most people frequent around five to eight different places depending on the spot where they get hungry and need food (Linda, 2006).

Conventionally, business entities informs and invites customers to buy advertising that keeps customers coming back to purchase products. But many local restaurants achieve their best traffic by consistently preparing good food; providing quality service; and maintaining a pleasant and friendly atmosphere. Their product is advertised through word of mouth. Operational excellence is their promotional tactic; their goal is “bring them back for more.” Bush meat is a known delicacy in many restaurants in Nigeria. Indeed, many Nigerians cannot forget in a hurry its delicious aroma and taste in native soups, such as akpohian’è, agoma, egusi, efo, and ofeisla, etc. However, scientists say consumption and preparation of meat from forest animals is behind the transmission of Ebola.

Restaurants in parts of Nigeria where bush meat is a delicacy may be counting their financial loss, as people may no longer be interested in consuming bush meat. Some of the owners of local restaurants made their lamentation while assessing the effect of Ebola virus scare on their business outfits, saying since the nation’s health officials advised Nigerians against the consumption of bush meat, following the outbreak of Ebola disease, their take home has become abysmally low. Consumers hardly patronized and even when they did, meals were not as delicious as it ought to be saying, it was a bit difficult to use gloves to prepare all the delicacies people come to enjoy (Mutasad, 2015). Unlike the westerners who fry most of their meals or eat canned foods, Nigerians prefer cooked meals. And the preparation process usually requires a lot of washing, pounding and feeling, to know when it is ready to be cooked or eaten—things that cannot be done effectively with gloves.

Owners of restaurant also expressed their fear on receiving money from customers. Since Nigeria has not gone fully cashless; currencies must continue to exchange hands. Body contact cannot be completely ruled out as scores of people must also go to the market every day to buy their needs (Chidi, 2014). Thus, sellers were scared of receiving payments in cash while buyers feared that the food they were eating may not be completely safe from Ebola fluids. The measure of cleanliness exhibited by local operation cannot be guaranteed at the level of food preparation.

This research is basically focused on how information gotten from different sources influenced the consumption of local restaurant food. Thus the independent variables in this study are social campaign, group effect and personal knowledge of Ebola. These variables will shed light on how Ebola social campaigns, group information on Ebola and personal experience/observation impacts on the purchase decision of consumers of bush meat in local restaurants.

If a person reads something that leverages his/her fears, his judgment would be obfuscated, and he could be more prone to impulsive actions under the pressure of these feelings. This study aims at finding out the extent to which Ebola has impacted on the purchase and consumption of bush meat in local restaurants of Calabar Municipal, Nigeria.

Statement of the Problem
The Ebola outbreak unleashed many case scenarios that influenced the behaviour of customers and impinged on their purchase decision. Researches carried out to ascertain the impact of Ebola on some sectors of the economy. They are as follows:

- Socio economic impact of the Ebola virus disease on Africa (ECA, 2014)
- Assessing the socio-economic impacts of Ebola Virus Disease in Guinea, Liberia and Sierra Leone (UNDP, 2014)
- Ebola: advice and risk assessment for educational, childcare and young person’s settings (PHE, 2015)
- Public knowledge, attitudes, and practices relating to Ebola virus disease prevention and medical
care in Sierra Leone (Roeland, 2014)

- Baseline survey report for Ebola awareness in some risk groups in Yaounde (Michele & Alice, 2015)

The most closely related ones are researches carried out to ascertain the effects an epidermis or climate change has on source of food and livelihood:

- The outbreak of avian influenza and chicken consumption in Thailand (Paitoon, 2006)
- The effects of global climate change on Nigerian agriculture (Apata, 2001)
- Influence of awareness campaign regarding prevention of highly pathogenic avian influenza in poultry in three districts of Uganda (Adolf et al, 2009)

However, no study was carried out to investigate how Ebola impacted on bush meat consumption in local restaurant meals. Thus, to fill that gap, this study will focus on the effect of Ebola on consumer purchase of bush meat in local restaurant food. Bush meat is a very important source of protein (and also a source of medicine for good health) in Africa.

**Research Hypothesis**

1. $H_0$: there is no significant relationship between social campaign, group effect, personal knowledge and the consumption of bush meat in local restaurants in Calabar municipal.

2. $H_1$: there is a significant relationship between social campaign, group effect, personal knowledge and the consumption of bush meat in local restaurants in Calabar municipal.

**LITERATURE REVIEW**

**THEORETICAL FRAMEWORK**

The theoretical framework in this study is a combination of social cognitive theory, social ecological theory and information process paradigm. The variables that will be discussed under these theories include: group effect, social campaign and personal knowledge respectively. Below is an illustration of how the variables will be linked to the theories:

![Diagram of the relationship between social cognitive theory, information process paradigm, ecological approach model and group effect, personal knowledge and social campaign respectively and how it impinges on consumer purchase decision.](Source: Author)

**SOCIAL COGNITIVE THEORY**

Social cognitive theory (SCT) refers to a psychological model of behaviour that emerged primarily from the work of Bandura (1986). Initially developed with an emphasis on the acquisition of social behaviors, SCT continues to emphasize that learning occurs in a social context and that much of what is learned is
gained through observation. SCT also has been applied extensively by those interested in understanding group motivation, learning, and achievement (Pajares, 1996; Schunk& Zimmerman 1994;1998).

SCT rests on several basic assumptions about learning and behavior. One assumption concerns triadic reciprocally, or the view that personal, behavioral, and environmental factors influence one another in a bidirectional, reciprocal fashion (Bandura, 2001). That is, a person's on-going functioning is a product of a continuous interaction between cognitive, behavioral, and contextual factors. For instance, classroom learning is shaped by factors within the academic environment, especially the reinforcements experienced by oneself and by others (Heidi, 2011).

Social cognitive entails how people recognize, interpret and cope with events and social life and this interpretation shape the ways in which they relate with problems of everyday life. Events objects and people come in contact with are interpreted on the basis of their experiences. Example, a young girl who was a victim of a gang rape fears to be in the midst of men (Mogaba et al, 2012; Zinkhan, et al 2002).

Fear influences the cognitive process of decision making by leading subjects to focus excessively on catastrophic events. Fear has been shown to influence consumer behaviour in number of ways (Wikipedia, 2009). For example, using fear to motivate behaviour is a common persuasion technique, and fear appeals have been used to promote variety of products—while bush meat sellers are counting their losses, sellers of hand washing soaps, disinfectants and sanitizers are smiling to the banks, following advice by medical experts that constant washing of hands could save from contracting the virus.

**Group Effect and Shared Knowledge from the Perspective of Social Cognition**

Our everyday experience provides examples of how majorities within groups influence minorities to conform to their norms which raise the question of whether we are really independently thinking individuals. One major reason to applaud the simultaneous study of cognition and group effects is that they shed light on each other. An important variance on how people interact is, not surprisingly, determined by their perceptions and thoughts. Because human lives are not lived in isolation, Bandura expanded the conception of human agency to include collective agency (Bandura, 1986).

According to Bandura (1986), humans have a number of capabilities that contribute to their nature. They include:

- symbolizing capability,
- self-regulatory capability,
- self-reflective capability,

One of which is of importance in this study is:

- Vicarious capability

**Vicarious capability:** humans not only learn through their own actions, but also through the information conveyed by models; that is observing other people’s actions and the consequences of those actions; modeling that takes place in the symbolic environment of the mass media.

Miller and Dollard (1941) argued that if one were motivated to learn a particular behaviour, then that particular behaviour would be learned through clear observations. The social cognitive theory states that we learn behaviors through observation, modeling, and motivation and this type of social learning was strengthened if the observer identified with their “model”.

Observing a model can prompt the viewer to engage in behaviour they already learned. In other words, people do not learn new behaviors solely by trying them and either succeeding or failing, but, rather, the survival of humanity is dependent upon the replication of the actions of others (Bandura, 2002; Bandura 1986). The process of learning from and connecting with others is timeless. People like to believe they are not gullible enough to fall for a hoax or rumor, but research shows that is not always the case. If a piece of information is highly inspiring, or comes from a trusted source (group), experts say people are more likely to believe it and spread it as well as allow the information to influence their purchase decision (victor, 2014).

Examples of groups include religious, political, military, and environmental groups, sports teams, work groups, and therapy groups. Amongst the members of a group, there is a state of interdependence, through which the behaviors, attitudes, opinion, and experiences of each member are collectively influenced by
other group members. Group influences individual’s decision making processes. These include decisions related to persuasion, obedience, and group think. There are both negative and positive implications of group influence on individual behaviour.

INFORMATION PROCESS PARADIGM THEORY

The information processing theory approach to the study of cognitive development has been rooted in a view of human agency in which individuals are agents proactively engaged in their own development and can make things happen by their actions. Individuals possess self-beliefs that enable them to exercise a measure of control over their thoughts, feelings, and actions (Pajares, 2002; Bandura, 1986). Thus, individuals are viewed as products and producers of their own environments and of their social systems. In the process paradigm, humans are likened and routinely compared to computers. This comparison is used as a means of better understanding the way information is processed and stored in the human mind. Computers were introduced to the study of development and provided a new way of studying intelligence (Lachman, 1979; Wikipedia, 2012).

Information processing models consists of a series of stages, or boxes, which represent stages of process. Arrows indicate the flow of information from one stage to the next. Input processes are concerned with the analysis of the stimuli. Storage processes cover everything that happens to stimuli internally in the brain and can include coding and manipulation of the stimuli. Output processes are responsible for preparing an appropriate response to a stimulus. According to Saul (2008), the information processing approach is based on a number of assumptions including:

- Information made available by the environment is processed by a series of processing systems (e.g. attention, perception, short term memory).
- The processing systems transform or alter the information in systematic ways
- Information processing in humans resembles that in computers.

Each person has personal characteristics that influence his or her buying behavior (Kotler and Keller, 2009). These traits lead consumers to choose products based on their individual thought process. Individuals modify the purchase decisions taken during previous experience to derive solutions for somewhat different problems. These experiences are stored in their minds and so rather than follow the crowd, they weigh their choices —“the last time a similar event occurred, I used this method to tackle it and this was the outcome—it worked well, I’ll use it now; or it didn’t turn out quite well, but I detected the hindrances and so I only need to make this adjustment and it’ll turn out better than it did the last time.” This shows that a purchase decision is a function of stored observations or experiences in the brain. Therefore, things consumers have seen or come in contact with previously have a way of influencing their purchase decision presently or in the future.

Personal Knowledge Yields Judgment and Choice

The information paradigm highlights important aspects of human judgment and choice processing that warrant specific research attention. One aspect is the nature and amount of information gathered or assembled (either from the external environment or from memory) that serves as an input to a representation. A second is the nature of the representation itself, or how individuals cognitively represent information about concepts and objects. Consumers’ cognitive representations of products and services, in
turn, serve as inputs to judgments, evaluations, and purchase decisions. A third aspect of interest therefore is the nature of the comparative or computational operations performed on these cognitive representations, or how the represented information is transformed into a judgment and eventually, a choice (Johnson and Puto, 1987).

If there is any characteristic that is distinctively human, it is the capability for reflective self-consciousness. This enables people to analyze their experiences and to think about their own thought processes. By reflecting on their varied experiences and on what they know, they can derive generic knowledge about themselves and the world around them. People not only gain understanding through reflection, they evaluate and alter their own thinking by this means. In verifying thought through self-reflective means, they monitor their ideas, act on them or predict occurrences from them, judge from the results the adequacy of their thoughts, and change them accordingly (Michael 1985).

Making judgment simply implies forming opinions or estimates. Judgments can be as general as estimating overall similarities among objects based on experience or past knowledge or impulse or as stating rank order preferences, but they do not constitute choices (Johnson and Puto, 1987). Choices, in contrast, necessitate the selection of a decision alternative, even if the alternative is deciding “not to decide.” The relevance of distinguishing between judgments and choices becomes evident when one considers the range of marketing research techniques that use judgments to predict choices. It is important for marketers to realize that, just as judgments often are collected as inputs for analytical techniques, consumer judgments are simply one set of inputs to choice processes. In a choice task, knowledgeable consumers are likely to be more selective in their use elimination strategies when making a choice as opposed to a judgment. In other words, more knowledgeable consumers rely more on their expertise in a choice task and, as a result, do not process as much information when making a decision as they would when making judgments about all available alternatives (Johnson and Puto, 1987).

THE SOCIO-ECOLOGICAL THEORY
Ecology simply refers to the balance that naturally occurs within the earth’s natural environment, it describes how each living thing on the planet interacts with the rest of the living things on the planet. This includes both plants and animals, and often, the balance between these is very delicate. As the human civilization matures, the need to protect the ecological balance becomes even more important, and more people than ever are learning about ecology and how they personally impact this balance (Answers, 2012).

The socio-ecological model recognizes the interwoven interaction between the individual and the environment in which he lives in. Although the individual is responsible for maintaining a lifestyle that improves health and reduce risk, the social environment the individual lives in determines behaviour to a large extent; these can hence form a barrier which in a way can affect the community as a whole in achieving a behaviour change. Hence the social ecological approach suggests intrapersonal, interpersonal, community, organizational and public policy in dealing with a problem at hand (Ukessays, 2015). The center for disease and control uses the socio ecological approach in containing unexpected environmental outbreaks.

The socio-ecological health promotion framework proposed by McLeroy and colleagues is based upon ecological systems theory (EST), which espouses that human development is shaped by a number of systems or context. These include: the immediate settings in which an individual participates (e.g. home, school, workplace) and relationships within and between them; relationships between settings in which the individual person does not participate but which affect the immediate environment (e.g. the education system); and generalized patterns that define the substance and structure of other systems (e.g. societies, social groups) but which are modifiable (e.g. by public policy).

The McLeroy framework identifies multiple, interdependent leverage or evaluative points at policy, community, organizational, interpersonal and intrapersonal levels and has been recommended as a theoretical, methodological and evaluative tool capable of supporting a consistent, holistic approach during the design, implementation and evaluation of health improvement interventions. The socio-ecological framework encourages both whole-system interventions, such as promoted by the settings
approach to health promotion, and also the explicit understanding of how more focused interventions might depend on factors at other levels for their effectiveness, acceptability or sustainability to be achieved.

Social Campaign As It Relates To Health Awareness

Trying to stem the spread of bad information to the public shares many similarities with containing a real-world virus — it takes a lot of effort (Victor, 2014). Infected internet users, who may have picked up bogus information from an inaccurate media report, another person on social media or word of mouth, proceed to infect others with each false tweet or Facebook post. There are millions and millions of people on these social networks say Ceren Budak, “most of them in certain cases are not going to have reliable information but they are still going to keep talking”. Eating raw onion, eating kolanut, or drinking salt water all surfaced as solutions. In Nigeria, two people died from drinking salt water-making misinformation in the country half as deadly as the disease itself. The rumored cure hospitalized dozens more (Evan, 2014). The ill-informed noise on social media made it difficult for legitimate sources, such as the center for disease control (CDC) or the World Health Organization (WHO) to make their voices heard (Evan, 2014). Quick, accurate information disseminated as widely as possible, experts say is the only way to combat the spread of falsities. Thus government, using social campaigns helped to contain the panics and point the public to the right direction.

Social campaigns aims to encourage behaviour changes for the greater good of the population and has been shown to positively affect knowledge, awareness, attitudes and behaviour in a number of areas (Gordon et al., 2006; Stead et al., 2007). Application of the socio-ecological model to social marketing communications is appropriate where the emphasis lies in encouraging people to take greater responsibility for health related decisions. This encouragement is facilitated through bottom-up and top-down approaches to deliver health behaviour change. The former involves the individuals and their communities understanding their behaviors and being empowered through alliances to change their behaviors (Oetzel et al., 2006) In contrast, the top-down approach relies upon changes in policy and institutions to deliver behaviour change. Incorporating both these aspects appears to deliver effective health promotion campaigns (Jackson et al., 2007).

CONCEPTUAL FRAMEWORK

During the Ebola outbreak, “negative thinking spread like a plague through all levels of society. It was not easy to protect oneself from the infection of negative thinking which spread by word of mouth, by conversations with friends as well as strangers, by television screens, and by radio news reports. It spread quickly because in times of crisis, the tendency is to react negatively. Once a business, a life, or a country is infected with negative thing, the infection attacks the mind, the heart, and the soul like termites that secretly gnaw away at the emotional support (Robert, 2009).

In social campaigns, mass communications affects personal attitudes and behaviour through a two-step process. Ideas often flow from radio, television, prints and community campaigns to opinion leaders and from these to the less media-involved population groups. This two-step flow has several implications. First, the influence of mass media on public opinion is not as powerful and mediated as marketers suppose. It is mediated by opinion leaders, people whose opinions others seek, or who carry their opinions to others. People interact primarily within their own social groups and acquire ideas from opinion leaders in their groups. There’s also an objective single step of processing information not elicited by an opinion leader but based on compilations of past experience and observation stored in the brain – that’s the personal knowledge.

This research is basically focused on how information gotten from different sources influenced the consumption of local restaurant food that is bush meat prepared during and after the Ebola outbreak. The dependent variable is; consumption (of bush meat) While the independent variables are: social campaign; group effect; and personal knowledge.

Within the context of this study, consumption will mean the purchase and intake of bush meat in meals of local restaurant during after the Ebola outbreak. Social campaign will include the efforts of government
and health agencies in the spread of the right facts about the scare of Ebola being transmitted from bush meat and how consumers of local restaurant bush meat responded to the news. Group effect will tell how far people are easily gullible when they hear a piece of information from a trusted family or friend online and offline: do they act on a rumor without verifying it first simply because the individual they heard the information from seemed convincing? Group effect will be used to find out how the group a consumer is affiliated with impacts on his/her consumer purchase of bush meat. Personal knowledge will be used to find out how people’s perspective is shaped not by a friend or family but by their own personal observation and experience. It will verify if individuals have experienced similar occurrence before and how they handled it and if they also applied the same behaviour during the Ebola outbreak.

The intervening variables are; World Health Organization (WHO), Nigerian Red Cross Society (NRCS), United Nations Children’s Funds (UNICEF) (SOCIAL Campaign); Church members, coworkers, and friends (Group Effect); Memory, observation, and external sources (Personal Knowledge).

**Conceptual Model**

Professionals have the responsibility of providing adequate communication skills to explain the main issues about disease outbreaks to the public. When there is a gap in the provision of expert information dissemination, myths and misinformation develop, which can be harmful to community mobilization efforts in response to a problem. In Nigeria, during the Ebola outbreak, public panic appeared to be escalating and there was a risk that choices may be driven by fear rather than fact. A focused program of communication from public health officials involving multiple outlets such as radio, television, and social media platforms was used to educate the public to really enlighten them on the facts on the dangers of bush meat consumption. These communications provided factual information concerning the management of Ebola risk tailored to the target population.

![Conceptual Model Diagram](image)

**Figure 3. Author’s model: the impact of social campaign; group effect; and personal knowledge on consumption of bush meat**

This model shows that social campaigns, group effect and personal knowledge were the resultants of the Ebola outbreak. Hierarchically, it began with social campaign because awareness of Ebola and the
dangers were first communicated to the public through social campaigns by government and health agencies. This was done to educate the public on the causes and precautions against the virus. Groups use medium of meetings (including large, up close and personal, and get together), emails, viral communication, SMS and group chats on social media. While individual use intrapersonal form of communication.

**Ebola Social Campaigns and Its Influence on Consumption of Bush Meat of Local Restaurants**

The spread of Ebola brought about viral information on how the virus emanates from bush meat. This information was a result of the sickness been transmitted to bats. Although the actual story is not that all bush meats carry the infection, people felt agitated at the news and as a result bush meat was banned for a while. The media, government and the private sector were actively involved in disseminating information, education and communication messages. The social campaigns gradually helped to contain the situation by constantly educating the public on the actual dangers of Ebola.

As the lead agency for raising awareness among communities, UNICEF conducted large scale activities through door to door campaigns, and dissemination of messages through leaflets, posters and radio television spots. According to UNICEF, using the social campaigns, government was able to contain the Ebola misinformation by:

- Addressing misconceptions about the diseases;
- Clearly spelling out the modes of transmission in local languages;
- Developing clear messages in local languages on protective practices (including burials);
- Maximally using radio as it is the most preferred channel with the widest geographic reach;
- Supporting inter personal engagement at grassroots levels in order to improve community response and ownership of the social mobilization efforts;
- Effectively using television medium to tell survivor stories and create a hopeful narrative;
- Ensuring that key information is communicated by health professionals because they are the most trusted source on Ebola.

The sharing of hashtags on twitter by CDC and WHO also helped to unveil the real facts of the Ebola disease. For the public awareness campaign, several materials and messages on Ebola were produced for both the print and electronic media. Prominent among these were fact sheets, brochures, fliers, stickers and booklets. These were designed to promote awareness; for instance, the fact sheet flier on Ebola issued by the Ministry of Health disseminated knowledge by answering the question “what is Ebola?” It also sought to deepen its readers’ understanding by providing answers on how Ebola is transmitted to forest animals and humans, how it is recognized, and how it is prevented.

**Below are the communications media used in the Ebola social campaign;**

- **Print Medium:** Communication formats and channels was designed to serve multiple objectives, such as advocacy, awareness building, conversion of awareness into self-reporting behaviour, morale raising among health service providers, and the planning of sustainable social and community mobilization. Other material, such as booklets, posters, fact sheets and fliers, was of great importance especially with children and in communities that cannot afford other media.

- **Electronic Medium**
  i. **Radio:** most radio stations were used to create awareness on Ebola in cross rivers state: BBC, Paradise FM, and Atlantic FM.
ii. **Television:** Channels TV, AIT, CRBC and other cable transmitted channels were mediums through which the people were educated.

**Interpersonal channels**

**Word of mouth:** Local people expected village health teams, district health and veterinary officers, and political leaders to organize public education events such as meetings and sensitization seminars in their areas of jurisdiction. These officials were supposed to talk to people, encourage them to adopt good wild life practices, and educate them on the symptoms, prevention and treatment of Ebola.

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**Group Effect and Its Influence on Consumption of Local Restaurant Bush Meat**

The social media, viral communications, emails and SMS—a medium through which groups pass on information to other group members plays a huge role on how consumers’ perception is shaped. The outbreak of Ebola has unveiled not just the bright side of group effect but also the darker side—the voracious spread of misinformation (Evan, 2014). Rumored preventatives and cures rapidly gained traction as desperate consumers search for any method to counteract the thus-far untreatable disease. According to Agbo-Paul et al (2014), the Ebola scare has also forced churches to modify worship. The Catholic Church for instance, modified proceedings including the rite of peace and administering of Holy Communion. One Sunday during mass in many dioceses of the church across the country, it was announced that the exchange of handshakes and hugs as a rite of peace has been temporarily suspended following the Ebola outbreak. Similarly, Holy Communion was no longer given from the hand of the priest to the receiver’s mouth as the receiver now has to receive it on their palm and place same on the tongue by themselves. Also in Pentecostal churches, where it was the practice for the cleric to shake hands with first time worshippers, that has also been replaced with waving towards them. Meanwhile, the chairman, Nigerian medical association, (NMA) Kaduna state chapter, Dr. Mohammed Ibrahim says the directive by the Catholic Church is in line as tiny cuts unnoticed by people could infect others with the virus.

Consumers align themselves with or against various types of group and those become significant to how these consumers view themselves and live their lives. Much the way they pick like-minded friends, consumers also purchase products they believe represent standards they relate to. Preference for certain consumer goods is sometimes built on the model of social emulation. People use the categories and rules of their specific cultures, subcultures, and ethnic groups to frame what they consider to be acceptable and preferable foods, the amount and combination of foods they choose, and the foods they consider ideal or improper.

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**Personal Knowledge and Its Influence on Consumption of Local Restaurant Food**

Changing knowledge, attitudes and practices are clearly at the center of a public awareness campaign to control and prevent Ebola. Knowledge refers to the information a person has obtained about a subject, area or issue. Most consumers state that the Ebola outbreak in Nigeria 2014 is synonymous to the avian influenza outbreak in 2003. Just as the avian influenza was linked to chicken consumption, the Ebola outbreak is also linked to consumption of bush meat. Both Ebola and avian influenza replicate to
overwhelm the human immune system which results in alarming mortality (Paul, 2014). Just like Ebola
virus negatively affects bush meat sales and consumption, avian influenza also takes advantage of highly
intensive poultry farming on which humankind depends.
Using personal knowledge, consumers relate to issues about consumption based on past experience or
previous incidence or present observations. This information are filtered and acted upon based on how
s/he processed it in his or her mind. Eating local restaurant food (according to some individuals) is not a
choice made due to influence of groups or social campaign but their individual preference. What makes
individual patronize a “mama put” is not necessarily a result of a group influence but a result of their
personal taste and experience. When asked about the sudden dangers of bush meat consumption, they
likened the scenario to the bird flu outbreak and said that till scientists say otherwise, it may be best
discontinue bush meat consumption for now.

The Concept of Consumer Decision Making Process
At any one time, we make decision concerning every aspect of our lives; these decisions are generally
made without stopping to think about how we make them and what is involved in the particular decision-
making process itself. Behind the visible act of making a purchase decision is a decision process divided
into three major components: input, process and output (Schiffman and Kanuk, 1997).
The input component comprises the external stimuli that serve as sources of information about a
particular product and influence a consumer’s product related values, attitudes, and behaviour which
include the marketing four Ps and the socio cultural influences, which when internalized affect the
consumer’s purchase decision. The process component which is concerned with how customers make
decisions considering the psychological field, is sub divided into the five stages below.

![Diagram of Consumer Decision Making Process]

**Figure 4: Consumer decision making process of preferred bush meat consumption location**

**Need recognition:** The buying process begins with the need recognition or problem awareness. At this
stage, the customer, firstly, recognizes a problem or need (example I’m hungry, I need to eat) or attracted
to an advertisement (example, you see a billboard showing a chilled ice cream on a scorching sunny day).
Need recognition is the difference between desired state and the actual condition.

**Information search:** After the buyer has recognized the need for something or existing problem the
customer then moves on to the next stage; searching for information. An aroused customer then needs to
decide how much information, if any, is required. If the need or the problem is so pressing and there is a
product or service close at hand that meets the need or solves the problem, then a purchase decision is made immediately. If not, the process of searching for information begins.

**Evaluation of alternatives:** The next step is the evaluation stage, where the customer chooses between the alternative brands, products and services. The important factor which influences the extent of evaluation is whether the customer feels involved in the purchase of the product. Involvement here means the degree of perceived relevance and personal importance that goes with the choice of a particular brand (Jobber, 2001). For example, Uwanse may be more convenient in terms of cost of transportation for consumers leaving in Calabar south but may not offer quantity and variety at a fair price.

**Purchase:** In the evaluation stage, the consumer forms preferences among the brand in the choice set. The consumer may also form an intention to buy the most preferred brand (Kotler and Keller, 2009).

**Post-purchase evaluation-cognitive dissonance:** The last stage is the post-purchase evaluation of the decision. After the customer has made the purchase, it is usual for the customer to deliberate on the purchase decision. The customer, after buying the product, may feel that the alternative would have been better. This situation arrives from a concept known as “cognitive dissonance”.

**How Ebola Impacted On Bush Meat Consumption in Some Parts of Nigeria**

According to Agbo-Paul et al (2014), the category of persons also experiencing the effects of the outbreak of the disease is bush meat sellers. Mrs Emide from Rivers State said she had been in the business for over 20 years and never experienced the kind of situation now threatening their business. She further stated that “to further help us, government should enlighten the public that bush meat in Nigeria does not cause Ebola. We don’t sell monkeys. We don’t sell bats. Government should please help us by enlightening the public...” she said. To convince the public, the bush meat traders ate pieces of their meat. They added that they prepare their meat in hygienic ways. But for now, their business is in danger of extinction even as the world strives to halt the spread of the dreaded Ebola virus.

Agbo-paul et al (2014) repeats that, a beer parlor and food canteen operator in Ado-Ekiti Mrs. Comfort Fagbemi told Leadership that her bush meat sales had reduced drastically since the Ebola virus became an issue in the country. She said while few of her customers vowed to continue eating the meat, majority of them said they will not risk eating it until medical experts gave contrary directives on the virus. Mrs Fagbemi said she could only sell about ₦2000 out of ₦15000 worth of bush meat cooked since the day the announcement was made, according to her; “it now takes five days to one week to finish selling the quantity of bush meat we sell in just one day due to poor patronage”. A hunter, Mr. Abodunde Adagba who lamented the low patronage occasioned by the Ebola virus said their customers were still not buying despite the price cut.

Bush meat sellers in Abeokuta, Ogun state have also cried out that their business is in shambles. For now, they are helpless and hopeless. The once thriving business of nourishing their customers with meat low in calories has been overrun by a dread with global proportions. Brewery, along Abeokuta Lagos expressway is the place to go for the best bush meat. It is the rendezvous for hunter, sellers and buyers. Until now, the place was beehive of activities. Customers from far and wide perhaps owing to its strategic location thronged the place. That was then. Now, patronage is almost zero. Ebola has undone businesses. Customers now increase their acceleration when they reach a bush meat spot (Agbo-paul et al, 2014).

**RESEARCH METHODOLOGY**

**Research Design**

The study has adopted the expo facto research design using a mixture of descriptive and survey methods. The need for adopting descriptive research design is necessitated by our understanding of the need to verify formulated hypothesis that refer to the present situation in order for careful elucidation.

**Study Area**

Cross River State did not experience an outbreak of the Ebola virus disease therefore, there are no statistics concerning vulnerable communities or regions. However, the fear of Ebola had an effect on every citizen in a country where the virus was present. Cross River State is one of the six states in South-South geopolitical zone of Nigeria. It shares an international boundary with the Republic of Cameroon to
the East and inter-state boundaries with Benue State to the North Ebonyi, and Abia states to the west, while Akwa-Ibom State and Bight of Biaba are to its South. Cross River State covers an area of 21,636.6 square kilometers. It is situated between latitude 5°45' North and longitude 6°30’ East. It has a population density of 137 people per square kilometer. It also has about 18 local government and three major ethnic groups and language which are Bekwarra, Efik and Ejiagham (Wikipedia, 2012).

**Population of the Study**

Population of a study refers to the totality of the elements that form the basis of analysis (Etuk, 2010). The intended groups for the study are those considered likely to be more exposed to Ebola infection through the consumption of bush meat in local restaurants. For this reason, this study targets consumers of bush meat at Atimbo in Calabar Municipal. The researcher purposively chose a total of 140 populations in Atimbo to study. The population of the study is a representative of the community at large.

**Sampling Design and Procedure**

The sampling design is a combination of convenience sample and random sampling. Simple random sampling was adopted to select the respondents to ensure that all were given opportunity to respond to the questionnaire. Convenience sampling allows for the choice of 100 respondents on an average call by consumers that is put at 50. A total of 103 respondents were chosen for this study as the sample size using Krejcie and Morgan’s sample size determination table.

**Sources of Data and Data Collection**

Both primary and secondary data were used for this study. For the secondary data, recent studies and articles on Ebola was collected as well as journals and textbooks. Using the primary data, the researcher administered 103 questionnaires at the point where bushmeat, palm wine, and plantain are sold.

**Data Analysis**

Data were analyzed using the regression method. This was used to determine the relationship between the independent variable. This study specifically used the multivariate analysis regression method because there are more than one independent variable and analysis was carried out by computer to minimize human data entry error. The formula is given as:

\[ Y' = a + x_1 + x_2 + x_3 \]

Where:

- \( y' \) = the predicated value of the dependent variable
- \( a \) = the Y intercept
- \( x_1 \) = social campaign
- \( x_2 \) = group effect
- \( x_3 \) = personal knowledge

**PRESENTATION OF RESULT**

Tables 1a-c: Multiple regression results showing the relationship between social campaign, group personal knowledge and the consumption of bush meat in Calabar.

**Table 1a. Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>R Std. Error of Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.791a</td>
<td>.625</td>
<td>.613</td>
<td>2.05518</td>
<td>2.109</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), personal knowledge, group effect, social campaign
b. Dependent Variable: consumption of bush meat
Interpretation of Result
The multiple regression analysis conducted to test for statistical significance entered three independent and one dependent variable. The result produced an R value of .791; this implies that there exists a very strong relationship between social campaigns, group effect, personal knowledge of Ebola and the consumption of bush meat. The value of R Square of .625, means that about 62 per cent of change in the dependent variable is accounted for by the independents. The result also implies that about 62 per cent decrease in the sales of bush meat could be explained by the independent variables. The Durbin-Watson value of 2.109, shows that the result is reliable, the regression error estimate has no effect on the predictive validity of the regression estimate. The F statistic result of (3, 94) produced a F calculated of 52.263, (sig.000), .000 less than standard alpha value of .05; This show the model’s strength in predicting the result outcome of the variables measured. The t statistics of the various independent variables are: social campaign = .001, group effect = .008 and personal knowledge = .007 less than standard alpha value of .05. The t-values of each independent variable is statistically significant, based on that, we can conclude that there exist a statistical relationship between social campaign, group effect, personal knowledge, and the consumption of local bush meat in Calabar.

DISCUSSION OF FINDINGS
This study examined the impact of three sources of information – social campaign, group information and personal knowledge on Ebola as well as their relationship with consumption of bush meat. For H1, t statistics 0.001<0.05 (standard alpha) hence the null hypothesis was rejected while the alternative was accepted thus, there is a strong statistical relationship between social campaign on Ebola and consumption of bush meat in local restaurants in Calabar municipal. The social campaign led to reduction of bush meat consumption due to the Ebola outbreak. This finding quite agrees with the research of Paitoon (2006) where all the findings suggested that the result of the avian influenza was significant in terms of both quantity reduction of chicken consumption and the structural change of the elasticity of consumption. In terms of awareness, the finding also agrees with the findings of Adolf et al., (2009) where it was noted that social campaign was worthwhile and justifiable. This finding also agrees with the social ecological theory where it states that ecological theory can be implemented to encourage people to take greater responsibility for health related decisions which can yield health improvement interventions. The implication is that once information flows from health officials, and government, whether it is substantial...
or not, consumers are likely to believe without further verification and are sure to allow the information to impact on their purchase decision. Thus, the agencies in charge of information dissemination should always be quick to spread the right information.

For $H_2$, t statistic $0.008<0.05$ (the standard alpha) hence the null hypothesis was rejected and the alternative hypothesis was accepted, thus there is a strong statistical relationship between group information on Ebola and consumption of bush meat in Calabar municipal. Therefore, the group a consumer is affiliated with has an influence on his purchase decisions. This finding quite agrees with the findings of Robert (2002) were it was observed that in a group setting, if a consumer notices several members of the group behaving in a certain manner, he will more than likely feel more confident about adopting that particular behavior himself. The findings in this study also agree with Bandura’s social cognitive theory (Bandura, 1986) where he expanded the conception of human agency to include collective agency – where people work on shared beliefs and not in isolation. The implication of this is if a person hears positive or negative remarks from a trusted, reliable source, those statements will more than likely have an impact on the formation of their own opinions.

For $H_3$, t statistic $0.007<0.05$ (standard alpha) hence, we reject the null hypothesis and accept the alternative hypothesis. Thus there is a strong relationship between personal knowledge of Ebola and consumption of bush meat in local restaurants of Calabar municipal. This agrees with the research done by Roeland (2014) where respondents (55%) believed that it is possible to contact bush meat by eating or preparing bush meat.

**IMPLICATION OF FINDINGS**

The overall objective of the study was to find out how information on bush meat consumption disseminated from social campaign, group and personal knowledge impacted on the purchase and consumption of bush meat. Results indicated that respondents had a tendency to reduce bush meat consumption in a situation of Ebola outbreaks. Explanations of the results are that information disseminated by the government and health professionals, groups and personal observation had an impact on bush meat consumption. Hence, if in a situation, outbreak occurs, reactions of consumers would likely be to avoid bush meat consumption.

For local restaurants, reductions in bush meat consumption would be inevitable if outbreak of Ebola occurs again in Nigeria. The possible effect of the outbreak is that there would be a huge reduction in sales of bush meat and patronage of consumers thereby affecting small scale business who depend on the income they make from the sales of bush meat. The implication of the reduction in consumption of bush meat is unemployment to hunters and sellers of bush meat. Therefore to curb this problem, a change of business line should be encouraged. This implies that government should consider such business ventures as vulnerable. Government should encourage a healthier business venture for them to save them should there be a reoccurrence of the Ebola outbreak.

It is therefore recommended that the information and communication departments of the Ministries of Health and of Agriculture, Animal Industry and Forestry should be active in dispatching information to journalists in a timely manner and government should seek to disseminate information to people assuming the role of opinion leaders as quickly as possible.

**REFERENCES**


