

DIFFUSION NETWORK, OPINION LEADERS AND FLOW OF IDEAS

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ABSTRACT: *We communicate to convey meaning into understanding and not by what we are; communication without understanding is more or less junk of message. In view of this, this paper was conceived and born to review diffusion network of an innovation in a social system. It also interested us to know that the roles of opinion leader are essential to diffusion of ideas in a social system. However, an opinion leader in a particular field may be an intruder in another field of events. Therefore, an opinion leader is not a master of all. More so, this review keeps the readers abreast with the diffusion of innovations, some models of mass communication, homophily and heterophily, characteristics of opinion leader, and how they could be applied to reach the end users.*

KEYWORD: Diffusion Network, Opinion Leaders

INTRODUCTION

The concept of “diffusion” according to oxford advanced learners’ dictionary, is derived from the verb “diffuse” means spreading over a wide area. Hence, diffusion means spreading of an idea or innovation over a wide area .Diffusion is a process of information exchange or flow between other units among a group of people (Adekoya and tologhose,2005). However, the quality and speed of flow depend on the topical nature of the information, model employed and management of the process by extension professionals. Diffusion is a process by which an innovation spreads from its sources of development to its ultimate adopters. Diffusion of innovation is the spread of information about innovations through a population and is simply the result of a host of individual adoption decision (fliegel,1984 in Nwogu,2008). Diffusion is also the process by which an innovation spreads (Rogers and shoemaatker,1971).

Harkola, et al (1995)defind diffusion as a process that describes a series of innovation, decision strategies cycling through a social system overtime: the spread of knowledge ,attitude towards uses, and evaluation of use of an innovation (an object that is now to the adopting unit). However, this process is called technology deployment, technology transfer, and dissemination in organizations (Tornatzky and Fleisher,1990 in Harkola, et al 1995).

Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers and karyn, 1997).

In view of the above, diffusion could be defined as the process by which an innovation/idea is propagated from its origin to the potential users with a probability view of either accepting or rejecting the ideal. The above definition (concept) presents clear pictures which can be used to understand and analyze the process of diffusion and adoption. Diffusion and adoption are inextricable linked that discussing diffusion in separation of adoption will create lapses in the mind of the recipient. in the same way, diffusion and rejection are parallel just as adoption, and diffusion aforesaid.Discussing diffusion without rejection will also create gaps in the memory lane of the audience therefore, in diffusion of an innovation/idea, an innovator should be

conscious of either accepting or rejecting his ideas being communicated to the prospective users.

Moreover, an extension agent who wishes to diffuse an innovation/ideal among farmers should ask him or herself the following questions, knowing that for him to contribute effectively on the live of the farmers, should ask himself the following questions (a) what should be done if my clientele reject/accept my ideal? Therefore, diffusion of an innovation is in the realms of probabilities of the potential users

In the light of the above, Adekola and tologbonse(2005). Opined that process of diffusion is seen as a precursor to adoption but not necessarily always ending up with the letter(adoption). In view of this, we can deduce that diffusion not necessarily end up with adoption but it paves way for adoption or rejection of innovation therein.

Diffusion Networks

According to Oxford Advanced Learner's Dictionary, "network", means a closely connected group of people, companies etc that exchange information etc. therefore, diffusion network could be defined as the process through which interconnected individuals exchange ideas among themselves. Diffusion network reduce the uncertainties about a new idea through the help of opinion leaders. The behaviour of opinion leaders are important in determining the diffusion of an idea into a social system. In fact, the shape of the diffusion curve occurs because once opinion leaders adopt and tell others about the innovation, the number of adopters per unit of time takes off (Rogers, 1962). Diffusion networks consist of interconnected individuals who are linked by patterned flow of information. Network have a certain degree of structure or stability. This patterned aspect of networks provides predictability to human behaviour. The communication structure consists of the differentiated elements that can be recognized in the patterned communication flows in a system. In order to calculate the number of possible network links, we use the formula $N(N-1)/2$ where N is the number of individuals in a system. Diffusion networks include mass media, change agent, opinion leaders, friends and peers.

Mass media

Mass media channels are keys during the knowledge stage. Interpersonal channels are crucial during the persuasion stage. The level of advertising can have an impact on the importance of the mass media channel. Interpersonal channels can be very powerful in specific cases. In Agriculture, interpersonal or mass media is used in advertising Agricultural product and creating awareness of an innovation.

Change Agents

A change agent attempts to influence others in a desirable direction as deemed by him/her. Often, a change agent attempts to have others adopt a new idea. Its main role is to facilitate the flow of an innovation from a change agency to an audience of clients. Often, change agents are teachers, consultants, public health workers, agricultural extension agents, development workers, or salespeople.

Opinion leadership

Opinion leadership is a concept that arises out of the theories of two-step flow of communication propounded by paullazarsfeld and elihukatz. This theory is one of the several

models that tries to explain the diffusion of innovations, ideals, or commercial products. Opinion leader is the agent who is an active median user and who interprets the meaning of media messages or content for lower-end media users. Typically the opinion leader is held in high esteem by those who accept his or her opinions. Opinion leadership tends to be subject specific, that is, a person who is an opinion leader in one field may be a follower in another field. An example of an opinion leader in the field of computer technology might be a neighbourhood computer service technician. The technician has access to far more information on this topic than the average consumer and has the necessary background to understand the information, though the same person might be a follower at another field (for example sports)and ask others for advice.(<http://en.wikipedia.org/wiki/opinionleadership>

Opinion leaders are individuals who obtain more media coverage than others and are especially educated on a certain issue. Opinion leaders can change depending on the subject but in general, men tend to be opinion leaders in politics and young women tend to be opinion leaders in fashion for women in general. According to Rogers (1983), opinion leaders show the degree to which individual is able to influence other individuals' attitudes in a desired way with relative frequency. Opinion leaders are individuals who lead and influence others' opinion about innovations. Rogers and Kincaid 1981 in Harkola, et al (1995) called opinion leaders "technology experts" with formal authority for the development and dissemination of technology. However, opinion leaders are individuals who frequently influence others' attitude for behaviour. In addition to their technical credibility, other people move towards opinion leaders because they are trusted to the extent that they represent the norms of the group. Contact with opinion leaders is expected to influence individuals' utilization decision.

According to Nwogu (2008), opinion leaders may be of two kinds; those influential on one topic and those influential on variety of topics. These types have been called monomorphic and polymorphic. Two types of opinion leaders can be distinguished, the general or "polymorphic" leader who gives advice on a wide range of subjects, and the specialised or "monomorphic" leader who advises on only one (Sen., 1969). Opinion leaders in a conservative or traditional community are mainly polymorphic. In contrast, opinion leaders in a modern progressive community tend to be predominantly monomorphic (Rogers and Shoemaker 1971). **Monomorphism** is the degree to which an individual acts as an opinion leader for a single topic.**Polymorphism** is the degree to which an individual acts as an opinion leader for a variety of topics. In every farming community there are people who will be pointed out by their fellow men as leaders to whom they can turn for advice and guidance on farming problems (Vanzly 1920). Rogers (1962), describe opinion leaders as "those individuals who have a greater share of influence because they take the lead in influencing the opinions of others". Opinion leaders retain their status as leaders by virtue of certain abilities, aptitudes and knowledge which they have mastered. They seldom fulfil a prominent position in public life and are often unaware of their leadership function. It will be clear from the foregoing that all members of a community participate in the diffusion of ideas. Some may influence and communicate ideas to only one or two of their fellows, whereas others may prove to be sufficiently influential to communicate ideas to a large number of people. The latter are true opinion leaders and since they can play a significant role in any extension programme, they need to be sought out and used by an extension officer.

Characteristics of opinion leaders

Social norm

Opinion leaders usually conform closely to the norms of their social system. When the system's norms favour change, opinion leaders become more innovative but when the norms are traditional, opinion leaders are not particularly innovative. Opinion leaders are often very similar to their followers (Rogers and Shoemakers 1971).

Sources of information

Most opinion leaders tend to make greater use of unbiased, technically accurate and cosmopolitan sources of information, than their followers. In consequence, they also command more accurate and more up-to-date information. Opinion leaders are less prejudiced both in terms of their sources of information and social association, than non-leaders. It has been shown by various research workers that opinion leaders usually have greater contact than non-leaders in the cities, towns and other areas outside their own communities.

Social participation

Opinion leaders are usually cultured people who mix easily and are interested to listen to. They do not necessarily fulfil the role of formal leaders. When an opinion leader is used to fulfil the duties of a formal leader, he may find that he now has to conform, at least in part, with his public. This may well prevent him acting as freely as he has done in the past, and in time may impair his role as an opinion leader (Van Zy, 1970).

Social status

Opinion leaders usually enjoy a higher social status than their followers (Bekker, 1971). Indeed, farmers tend to seek advice from people who are their social superiors, provided the social difference is not too great. Opinion leaders usually have larger farming enterprises, higher gross income and better standards of education than the non-leaders. These attributes directly or indirectly, play a part in their higher social status.

Innovativeness

Opinion leaders are recognized as competent authorities or "experts" and in consequence as sources (connections) of sound advice. It seems logical therefore to assume that opinion leaders will adopt or reject innovations or new practices before their followers. In fact, opinion leaders have a better knowledge of innovations and they are usually pointed out as being sound, neat and practical farmers. Studies have shown that opinion leaders are more innovative than their followers. This, however, does not mean that they can be classified as innovators (Bekker, 1971). Opinion leaders can be found in every category of those who adopt new ideas, but they seem to predominate in the category "early adopters". In conservative communities, opinion leaders tend to be cautious and in these circumstances they may be found predominantly in the "early majority" category (Rogers, 1962).

Roles of opinion leaders (Havenga, 1974)

- Opinion leaders are used in the diffusion and adoption of improved agricultural practices.

- They exert influence in the decision making within their community thereby modifying the opinion of others in the informal manner.
- The personal influence of opinion leaders is very important in the persuasive state of the innovation decision process.
- The ability to use opinion leaders will help to determine the success or failure of the extension programme.
- Opinion leaders put innovation to practical use, insight and judgement.
- Opinion leader has a marked influence on selective-exposure, selective perception and selective retention. In a free enterprise society, ideas often move from the radio or written word to the opinion leader and from him to the less active members of the community. It is important to bear in mind, however, that the opinion leader has a marked influence on the concept involved, as his influence will come to the forefront. Through selective exposure, a person reads and listens only to the features which interest him. As a result of this selective perception, he interprets ideas in a way that suits his own viewpoint and thought. As a result, he tends to retain selectively only those facts, ideas and figures which he finds to be in accordance with his preconceived views. Information acquired through mass or group media will therefore be selected and sifted by a person, before the accumulated knowledge is ready for distribution to others.

The knowledge which the follower receives at the end of the communication chain would therefore have been remodelled. The result could be that an idea reaches the farming community in a form which, due to distortion, differs substantially from the original. To avoid this, the extension officer needs to pay particular and personal attention to opinion leaders, ensuring that misinterpretations, distortions and vagueness are clarified. In this way, he can ensure that correct information is effectively distributed.

Measuring Opinion Leadership and Network Links (Brunt, et al, 2003)

1. The **sociometric method** consists of asking people whom they sought for information or advice about a given topic. This is usually a highly valid of opinion leadership. A large number of respondents is needed to ensure validity.
2. An alternative to using sociometry to identify opinion is to ask key informants who are especially knowledgeable about the networks in a system. This technique is almost as accurate as sociometric method, but requires fewer respondents.
3. **The self-designating technique** allows respondents to indicate the degree to which others in the system regard them as influential. This method obviously depends on the accuracy with which respondents can identify and report their images.
4. Opinion leadership can be measured by observation, in which an investigator identifies and records the communication behaviour in a system. This method is typically very accurate, but it can be obtrusive. Also, the members of a system who are being observed might act differently because they know they are being observed. This method has not been used often.

Homophily and Hetrophily

Homophily is the degree to which pairs of individuals who communicate are similar. The similarities can be things like beliefs, education, socioeconomic status, etc. communication is generally more effective when source and receiver are homophilous. Hetrophily is also the degree to which pairs of individuals who interact are different in certain attributes. Hetrophilous networks often connect two cliques, thus including two sets of socially dissimilar individuals in a system. Homophily accelerates the diffusion process. Homophily occurs frequently because communication is more effective when

source and receive are homophilous. When two individuals share common meaning, beliefs, and mutual understandings, then communication between them is more likely to be effective. Individuals enjoy the comfort of interacting with others who are similar. Talking with those who are more markedly different from us requires more effort to make communication effective. Hetrophilous communication between dissimilar individuals may cause cognitive discord because an individual is exposed to messages that are inconsistent with existing beliefs, and uncomfortably psychological state.

Homophily and effective communication bring about unit in communication. This means that homophily brings about effective communication. The more communication between members of social system, the more likely they are to become homophilous. The more homophilous between two individuals are, the more likely that the communication will be effective. Individuals who depart from the homophily principles and attempt to communication with others who are different from themselves often face the frustration of ineffective communication. Differences in technical competences, social status, beliefs, and language lead to mistaken meanings, thereby causing messages to be distorted

([http://books.google.com.ng/characteristics of opinion leader](http://books.google.com.ng/characteristics%20of%20opinion%20leader))

Models of mass communication

In order to understand better the nature of opinion leadership and diffusion network, some models of mass communication like hypodermic needle model (magic bullet theory), two step flow model, and multiple step flow model have to be discussed.

Hypodermic needle or magic bullet theory

Hypodermic model states that the media of mass communication inject messages, beliefs and information into the audience as a doctor would inject or inoculate people using a hypodermic needle. Therefore, it was thought that media messages were as powerful as the contents of a hypodermic needle, which begin to act on a patient immediately after injection, according to the intentions of the manufacturer of the drug carried the needle.

Similarly, media messages were seen as the bullets from a gun, which launch out with a speed and accomplish the motives of the shooter soon after they are fired (Wogu 2008). The magic bullet theory thus holds that messages communicated via the media would have strong and direct impact on the audience. However, the bullet perspective holds two main assumptions that render the roles of opinion leaders in the diffusion network inactive;

- Individuals receive information straight from the media and not from any other intermediary (one-step flow)

- Those individuals react personally without influence from others.

The Two-Step Flow Model

The Two-Step Flow Model suggests that communication flows a source, via mass media channels, to opinion leaders, who in turn pass it on to followers. A study of 1940 presidential election in Erie County, Ohio discounted the effect of mass media in voting decisions. The first step in this model is a transfer of information from the media to an opinion leader. This is followed by a spread of interpersonal influence. This model shows that information/ideas flow from radio to opinion leaders (first step) to the less active section of the population [second step] (Wogu, 2008).

In the two step flow of communication, opinion leaders have more influence on people's opinions, actions, and behaviours than the media. Opinion leaders are seen to have more influence than the media for a number of reasons. Opinion leaders are seen as trustworthy and non-purposive. People do not feel they are being tricked into thinking a certain way about something from someone they know. However, the media can be seen as forcing a concept on the public and therefore less influential. While the media can act as a reinforcing agent, opinion leaders have a more changing or determining role in an individual's opinion or action.

Multiple step-flows

The multiple step-flow postulates that the media messages pass through many steps to get to some members of the audience. The model does not specify any amount of opinion leaders who come in-between the message and the audience. It does not also specify that the message must come first from a mass media source. It only takes note of the variable number of relays in the communication flow from a source to a large audience. Some audience may get the message directly from the mass media, while some members will many times remove from the original source of the message. The precise number of steps may depend on the nature of the message, the availability of mass media channels, the intention of the source/importance of the message and the level of the exposure of the audience to the mass media (Wogu, 2008)

CONCLUSION AND RECOMMENDATION

With respect to the available literature, it is clear that this research had done a critical review on the analysis of diffusion of an innovation ,opinion leader,homophily and heterophily,models of mass communication and flow of ideas. However, opinion leaders do affect diffusion of ideas and also are more influential than non opinion leaders in a social system. The ability of the opinion leaders to influence decision making may be relative to the group norms and the expertise of the opinion leaders in question. This study therefore, recommended that for extension agents to achieve their targets in a rural setting, the roles of opinion leaders and the aforesaid mass communication models should be achieved.

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