



Effective Communication Model Used By the Instructor in Delivering Innovation to Beef Cattle Farmers

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Received 30 September, 2014; Accepted 29 November, 2014 © The author(s) 2014. Published with open access at www.questjournals.org

ABSTRACT:- Cattle is one of livestock types whose potentials to be developed in Minahasa District. Beef cattle that has been superior livestock determined by the local government in increasing local economic growth, especially from livestock subsector. Communication in the form of disseminating information of beef cattle business is information services which are done through non-formal educational process for farmers and the parties concerned. These services must be high qualified, so that it can meet the needs and expectation of communication target at the time necessary. Based on the statement above, the purpose of this research is to find out communication model that will be applied by the instructors in delivering innovation to the beef cattle farmers in Minahasa District area. Qualitative approach is used to test analysis of strategy, opportunity, weakness, as well as threat or SWOT). One of instruments that can be used to obtain strategies is SWOT. The SWOT analysis includes internal environment analysis, i.e. variables of strength and weakness as well as external environment analysis, i.e. variables of opportunity and threat. The suggestion for communicator (instructor) is improving communication ability with some approaches. With the characteristics of the high quality communication, it can improve the recipient's communication through messages or type of channel so it can improve communication effects.

Keywords:- Beef Cattle, Livestock Commodity, Farmers, Communication, Innovation.

I. INTRODUCTION

Beef cattle is livestock commodity that plays important role as the source of animal protein for society, fertilizer and workforce. People can utilize agricultural harvest waste to feed cattle and use it as saving that can be sold at any time necessary. As the number of population increases, the need of meat also increases. In the efforts of fulfilling that need, the government imports living cattle and meat, for example from Australia and New Zealand and it determined meat/buffalo self-sufficient acceleration program (P2SDS/K) in 2014 (Rianto and others, 2009; Ngadiyono, 2012).

Cattle is one of livestock types whose potentials to be developed in Minahasa District. Beef cattle that has been superior livestock determined by the local government in increasing local economic growth, especially from livestock subsector. Total population of cattle in North Sulawesi in 2008 is 108.335, in 2009 is 60.598 and in 2010 is 98.539. The largest number of cattle population existing in Minahasa District is 24.730 (North Sulawesi in Number, 2011).

Some researchers state that cattle in North Sulawesi are commonly kept traditionally (Elly, 2008; Salendu, 2012). The traditional characteristics are: 1).The cattle are not in the stall.2). The food given commonly is grass or agricultural waste. 3).The food type and the way of feeding have not paid attention to the quality and quantity. 4) There is lack of control toward diseases. These factors cause low productivity of the cattle. Based on the phenomenon above, it can be stated that beef cattle have important roles for society in general and the farmers specially. The low development of cattle is caused by traditional agricultural business pattern. The keeping pattern must be led to commercial pattern or at least less semi-commercial pattern. The expected keeping pattern can be achieved if there is intervention from the government in the development of that business.

Communication in the form of directional guidance in Minahasa District recently has not been run as appropriate. Communicating technology information especially in the effort of livestock business until it is accepted and applied by the farmers is not easy, because there are many cases of failure of technology

application by the farmers that cause negative impacts, such as the lost of trust on a kind of technology which leads to the next technology introduction. It can restrict the government's programs (Hadi, 2008). It is regarding *who, says what, In which channel to whom, and with what effect* (Lasswell, 1960).

Communication in the form of disseminating information of beef cattle business is information services which are done through non-formal educational process for farmers and the parties concerned. It is done in order to develop the ability of the farmers dynamically in solving every problem they have well, beneficially and satisfactorily (Suparta, 2001). These services must be high qualified, so that it can meet the needs and expectation of communication target at the time necessary. The quality of services can be seen in the aspects of *reliability, assurance, performance, empathy and responsiveness*. The service quality is made through nonformal educational process in order to improve awareness of the beef cattle business actors that can be delivered both directly or indirectly through various printed media or electronic media. The business actors of beef cattle farming are expected to be creative, innovative, brave and independent in making decisions to solve any problems they face with the strength and ability within themselves as well as business development prospects in the future.

Based on the statement above, the purpose of this research is to find out communication model that will be applied by the instructors in delivering innovation to the beef cattle farmers in Minahasa District area? The communication models in the field are identified, meaning that the condition of directional guidance conducted by agricultural instructor toward beef cattle farmers in developing beef cattle business in Minahasa District area. The communication model that possibly happen in the field are: (a) Shanon dan Weaver's linear communication model, (b) Wilbur Schramm's interactional communication model, (c) Barnlund's transactional communication model, (d) Lasswell's communication model, or (e) Berlo's communication model as well as (f) deFleur's communication model.

II. THEORETICAL OVERVIEW

In the research conducted by Kursat Demiryurek *et al.*, (2008) regarding agricultural information system and communication network stating that the main function of information system is business directional guidance among the farmers related to milk production. Agricultural information influences agricultural productivity level, i.e. giving a lot of and relevant information regarding the selection of land, workforce, livestock, capital and management. The agricultural information source providing (with directional guidance, research, educational program and so on) is managed directly by agricultural organization by creating information system that is used to disseminate information to the farmers. It can help the farmers in making better decisions to gain high profit from the market as well as keep doing continuous improvement in their production system. However, the lack of information support from institutional sources hampers the dissemination of information and technology sources accepted by the farmers especially those who do not belong to the members of association. Therefore, it is suggested to cooperate functionally between public and private information sources in motivating dairy cattle farmers who are not the members of association who still use traditional/conventional technique to convert into the modern one. This change can be done by doing various directional guidance done directly by the experts to all parties.

Dwi dan Amaliah's research (2012) regarding social media as new form of communication shows that communication is the center of all activities in life. It is linked in every aspect of human life. Therefore, in line with the advance of technology communication, human will face revolution in the way of communicating to others. Dwi and Amaliah (2012) state that there are two kinds of communication channel, i.e. interpersonal channel type, including all types of face-to-face relationship and mass media channel, including radio, television, newspaper and all kinds of media whose capacity to distribute the quality of message to the audience. In interpersonal communication, there is message exchange between communicator characteristics (sender) and recipient with more private way than mass media communication. The characteristics of communicator and recipient are that they have ability in supervising their communication, so that the communication becomes effective and efficient. Interpersonal communication functions as mediator for mass media to produce bigger effects. Another research conducted by Iskandar (2010) regarding the effect of intensity in the interpersonal communication of academic advisor and student's learning motivation states that interpersonal communication is the communication occur between individuals one another by face to face directly where this process happens on two/more individuals in the small group which aims at giving influence each other and get responses directly.

Model is a description designed to represent reality. Model is an imitation of the symptoms which will be investigated. Model describes relationship among the characteristics or properties or components of the symptoms (Rakhmat, 1995). Model is a representation of a phenomenon, both real and abstract with prioritizing the most important elements of the phenomena. Model of communication is not the phenomenon communication itself, but only to explain and reduce communication phenomenon (Mulyana, 2005). Communication model is an ideal description regarding the need to create communication (Sereno & Mortensen in Cassata, 1979). Communication model can be defined as a description of characteristics or components of communication, and relationship between the characteristics or components of communication.

Communication is a process of information delivery (quality of message, idea, concept) from one party to another in order to influence one another. Communication done orally or *verbally* that can be understood by both parties, if there is no *verbal* language can be understood by both, communication can still be done by using gestures, showing certain attitude, such as smiling, shaking head, raising shoulder. These ways are called as non verbal language (Richard and Turner, 2008; Mulyana, 2008a).

The definition of communication etimologically is derived from Latin, *Communicatio*. This word sourced on *Communis* meaning the same; the same meaning means the same definition. Thus, communication occurs when there is a same meaning regarding a quality of the message delivered by the characteristics of the communicator and accepted by the characteristics of the recipient (Effendi, 2003). If there is no same meaning between both *communication actors*, i.e. the characteristics of communicator and the characteristics of recipient. In other words, the characteristics of recipient does not understand the quality of the received message, so communication will not occur.

Quoted from Ilmu *Komunikasi Suatu Pengantar*, Mulyana (2008), there are some definitions of communication, i.e.:

1. Communication: Transmission of information, idea, emotion, skill and so on, by using symbols, words, figure, chart etc. Transmission action and process are usually called as communication (*Bernard and Gary A. Steiner*).
2. Every communication action is considered as one of information transmission, consisting of discriminative stimulation, from the source to the recipient (*Theodore M. Newcomb*).
3. Communication is the process enabling someone (communicator's characteristic) to give stimulation (commonly in the form of verbal symbols) to change other's behavior (*comunicate*) (*Carl I. Hovland*).
4. Communication occurs when a source deliver a message quality to the recipient which consciously influence to the recipient (*Everett M. Rogers*).
5. Communication (intentional) is a process of sorting, selecting, and sending symbols in such a way so it can help the hearer to take the meaning or make responses from his/her thought according to the aims of the characteristics of communicator (*Raymond S. Ross*).
6. A good way to describe communication is by answering this question "Who Says What In Which Channel To Whom With What Effect?" (*Harold Laswell*).

III. METHODS OF ANALYSIS

Qualitative approach is used to test analysis of strategy, opportunity, weakness, as well as threat or SWOT). One of instruments that can be used to obtain strategies is SWOT. The SWOT analysis includes internal environment analysis, i.e. variables of strength and weakness as well as external environment analysis, i.e. variables of opportunity and threat. After all information which are influential for the continuity of beef cattle business development are collected, the next step is utilizing all of the information in qualitative model of strategy formulation.

The model to be used is SWOT matrix and internal external matrix. SWOT matrix is selected because it can describe clearly how opportunity and external threat in developing beef cattle business is adjusted to the strength and weakness owned. The parameters used in internal and external matrices are the internal strength in developing beef cattle business and the external strength in that.

IV. RESULTS AND DISCUSSION

The following table presents the results of the SWOT analysis. Various internal strengths of the farmers which are the opportunity to develop animal communication is that the results of animal husbandry are determined by the instructor. The better the instructor, the better the results of husbandry business through good communication are. It seems that it needs ethos, pathos, or logos aspects from the instructors in order to be able to convey communication in husbandry well and appropriately. On the other hand, the indicator of awareness is primary in the effect of communication, so it is a strength as well as opportunity as the strategy of husbandry communication development strategy. Besides, the farmers today have husbandry culture rooted within themselves in order to gain the farmers whose high characteristics.

Table 1 Results of SWOT Analysis

External factors	Internal Factors	
	strength (S)	strength (W)
opportunities (O)	<ul style="list-style-type: none"> • The better the instructor, the better the results of operations of the farm • Requires a high awareness by farmers to communicate • A culture of good breeding 	<ul style="list-style-type: none"> • Lack of education ranchers an opportunity to create non-formal education • Low types of non-electronic channels perceived by farmers, can create a free newspaper for farmers, to stimulate farmers to understand the communication be better
threats (T)	<ul style="list-style-type: none"> • Logos are the indicators of dominant determinant of the characteristics of the communicator • The worse the instructor, the worse results of operations of the farm • Farmers are less aware of the communication will reduce farm business results 	<ul style="list-style-type: none"> • Poor quality of the content of the message • Low interest of farmers to communicate • Low level of acceptance to communicate

The aspect of strength will also become a threat in developing husbandry communication. Logos is dominant indicator as the determinant of the recipient's characteristics, if the instructor does not have high spirit of logos, it will worsen the development of communication in husbandry. From the farmers' side, up to now the farmers are less aware of good communication, so that it will decrease the results of husbandry.

Weakness aspect becomes an opportunity in developing communication of husbandry communication. One of them is that although the farmers' educational background is low, it will be opportunity for the government or related parties to create nonformal education, especially education related to communication in husbandry. On the other hand, it seems that non-electronic channel is considered low by the farmers. It can trigger new innovations, such as free newspaper for the farmers to stimulate them in understanding communication better.

The last part is regarding. weakness becomes threat. The farmers, the instructors, or other parties must pay attention to the following matters: (1) low quality of message content, (2) low interest of the farmers to communicate, (3) low acceptance level to communicate.

This research recommended effective communication. Tubbs and Moss (2005a) propose that communication is considered effective if someone successfully conveys what he/she means. In general, communication is effective if the stimulation conveyed and meant by the sender or source, is related to the stimulation caught and understood by the recipient. To measure the effectiveness of communication is not only by saying that the person has successfully conveyed what he/she means, but also by using certain assessment criteria which are right and clear in the measurement. Effective communication, at least causes five things as the measurement, i.e.: 1) understanding, meaning that accurate acceptance of the message content conveyed by the communicator so there is no misinterpretation of the message by the recipient; 2) pleasure, meaning that a situation that makes relationship warm, intimate and cheerful; 3) the effects on attitude, the communicator's persuasive ability in delivering message that causes effects to the recipient; 4) better relationship, meaning that the growing feeling of socializing with others, controlling and being controlled as well as being loved and loving, and 5) action, meaning that the real action done by the recipient after there is understanding, attitude establishment and change, as well as good relationship increasing.

Communication will be effective if its fidelity increases and its noise decrease. It can occur on the source (communicator), message, channel and recipient as the elements of communication (Berlo 1960). Effective communication contains delivery and acceptance of accurate information, deep understanding of message quality by both parties and appropriate action taking toward information exchange accomplishment. Several things needed for effective communication are: 1) short and sufficient explanation from the recipient, 2) appropriate language usage, 3) clarity, 4) appropriate media usage (Moekijat 1993). In doing communication in rural society, there are two methods, i.e.: 1) approach based on innovation target group (individual, group and mass) as well as 2) approach based on delivery method of message content (lecturing and discussion, demonstration, and the use of aid instrument).

Vardiansyah (2004) states that the effectiveness of communication is the influence raised from her/his communicator. It has three levels of influences in communicator itself which are cognitive; the way of thinking of the person from nothing to know something, affective; the behavior formed to agree or disagree, and conative; to act in making people believe or do something.

The obstacles found in communication stated by Devito (1997), communication process will find the obstacle to deliver information verbally to the recipient called as cognitive distortion, raises in interpersonal communication, small group or in public conversation. The obstacles are; 1) polarization is a tendency to see the world in opposite way and describe it in an extreme way such as good and bad or black and white; 2) intentional orientation is a tendency to see human, object and phenomena based on their characteristics or label such as being interested after listening to what she/he told; 3) pragmatic implication is the possibility of conclusion but invalid; 4) by passing is the pattern of evaluation mistake as people fail to communicate their intention; 5) obvious (allness) is a tendency to think that people who know something, it must be right and know everything; 6) static evaluation is ignoring the changes of statements and thinks that reality is static; 7) indiscrimination is making a group by putting different object to the same group and admitted as the same group. Widjaja (2000) stated that communication's problem is usually the indication of there is something wrong. The problems are because of the sender (characteristic of communication), transmission and recipient. Those obstacles are below; a) lack of communication plan (there is no preparation), b) different perception, c) different wishes, d) unwell condition of physical and mental, e) unclear message, f) bad thinking g) bad transmission h) premature assessment and evaluation i) distrustful j) threat, k) different status, knowledge and language l) distortion (wrong information).

The cause of obstacles of communication is the different reference between communicator and recipient's experience. The effect is different perceptions of these people (Tubbs & Moss 2005b).

Effendy (2003) proposes that there are four obstacles in communication. Those are: 1) noises, consisting of mechanical noise and semantic noise, 2) interest, 3) hidden motivation, and 4) prejudice. Mechanical noise is noise type of physical communication channel, while semantic noise is related to the quality of communication message that can cause misunderstanding. Interest will make a person be more selective to respond the message. People will pay attention to the message that has relation to their interest. Motivation can make somebody act based on their willingness, needs and weakness. The more communication is relevant with the motivation so it can be accepted and vice versa, it deniable if there is no motivation. Mostly, the process of communication happens if there is unpredictable things such as communicator gets wrong perception with the seriousness of recipient, it because the communication delivered not relevant to its motivation. This pretending is caused of recipient hidden motivation. The big obstacle of communication is prejudgment. The prejudice will make the recipient suspicious and neglect the communicator who will deliver his intention so recipient cannot think objectively and positively.

Berlo (1960) states that the important thing in communication is packaging meaning into effective message, but there are factors reducing accuracy in communication. First, source, which is influenced by communication skill, attitude, knowledge level, social cultural system; second, recipient which is influenced by communication skill, attitude, knowledge level, social cultural system; third, message, which is influenced by message code, content and treatment toward the message and fourth, channel.

Factors restricting communication (barriers) include: perception, language, semantic, delivery method (infection), personal attraction, emotion, understanding (preconceived notion), attention, (wordiness) and assumption (inferences) (Donaldson & Scannell 1986).

In line with the statement above, Lionberger and Gwin (1982) state that some barriers in interpersonal communication process include: 1) perception differences, 2) abstract language usage, 3) emotional words usage, 4) source domination, 5) low source credibility and 6) source's interest dominance.

According to Levis (1996), complexity of rural development level and high variability of rural society in the aspects of social, economic and culture are complex for the development of good and effective rural communication technology. In business aspect of the farmers in rural area, communication barriers are: 1) varied natural, socio-economic and cultural conditions, 2) high farming diversity, 3) different needs and problems at the same time, and 4) one of the initial approaches developed by the characteristics of communicators itself.

Azainil (2003) states that the restricting factor of communication in government's organization in Bogor District is the lack of knowledge, communication skills, age difference and communication style difference. Meanwhile, according to the results of Damayanti's research (2003), the restricting factors of communication which are related to communication effectiveness are self-control, attention, age difference, communication style difference, credibility and negative prejudice.

Suryadi (2000) states that communication barriers experienced by the fishermen (PNK) and the instructors are the opportunity of communication, communication activity, intimacy between the instructors and the fishermen, material accuracy and motivation in cooperation. Saendinobrata (1998) proposes that a communication barrier is time pressure, the lack of the member's participation toward work implementation

communication, low credibility of the source, status difference, long command line, perception differences, low empathy level, connector's role, low motivation of the individual toward communication activities, information load.

V. CONCLUSIONS AND RECOMMENDATIONS

Various internal strengths of the farmers which are the opportunity to develop animal communication is that the results of animal husbandry are determined by the instructor. The better the instructor, the better the results of husbandry business through good communication are. It seems that it needs ethos, pathos, or logos aspects from the instructors in order to be able to convey communication in husbandry well and appropriately. On the other hand, the indicator of awareness is primary in the effect of communication, so it is a strength as well as opportunity as the strategy of husbandry communication development strategy. Besides, the farmers today have husbandry culture rooted within themselves in order to gain the farmers whose high characteristics.

The aspect of strength will also become a threat in developing husbandry communication. Logos is dominant indicator as the determinant of the recipient's characteristics, if the instructor does not have high spirit of logos, it will worsen the development of communication in husbandry. From the farmers' side, up to now the farmers are less aware of good communication, so that it will decrease the results of husbandry.

The suggestion for communicator (instructor) is improving communication ability with some approaches, such as *ethos*, *pathos* and *logos*. *Ethos* or *argument based on credibility*, i.e. invitation or direction obeyed by the recipient because the communicator has credibility as the expert in husbandry field. *Pathos* or *psychological emotional argument*, i.e. invitation delivery uses emotion's effect. *Logos*, or *logical argument*, i.e. invitation delivery uses argumentation of the data found. With the characteristics of the high quality communication, it can improve the recipient's communication through messages or type of channel so it can improve communication effects, including improvement of awareness, interest, assessment, trial and acceptance.

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