

Effectiveness of Agricultural Information Dissemination through Media Mobile Phone on Vegetable Farmers in the District Pacet, Cianjur Regency

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ABSTRACT

This study aims to identify and analyze the effectiveness of dissemination of information in agriculture by cell phone / mobile. The method used in this research is descriptive correlational survey. The research was conducted on vegetable farmers in sub district Pacet Cianjur West Java Province. Important results of this study showed that from 129 farmers only 121 had been using mobile phone but in looking for information agricultural setting; there is significant correlations between: 1) general characteristics of the respondents, Accessibility of information and intensity of communication with the effectiveness of agricultural information dissemination through the media mobile phone on vegetable farmers; 2) the three independent variables: characteristics, accessibility of information and communication intensity vegetable farmers use mobile phones; and 3) there is no significant correlation between the use of mobile phones and the smooth increase vegetable farmers.

Keywords: *Effectiveness, Dissemination, Agricultural, Mobile Phones*

1. INTRODUCTION

Science and technology are always progressing, even it happens rapidly nowadays. The progress is not only in a matter of years, months, or days, but in hours, even minutes or seconds, primarily related to information and communication technology supported by electronic technology.

Study on information dissemination related to mobile phones usage is suggested by Kamaruzaman (2009) and Wijaya, Suryatiningsih, Fahrudin (2011). The result showed information dissemination through mobile phones potentially applied particularly via SMS to swift the distribution of information. This is related to widely known mobile phones usage in public.

Result from a study conducted by Maksum, Buldansyah D.L., and Prawati B. (2008) showed that the effectiveness of digital information services tend to be determined by the level of user's demand and supply of accurate information, also the rapid and accuracy of the service mainly defined by access availability to the facilities. It also revealed that student group user visiting library more interested in complete article than bibliographical as a form of information.

Benunur M.N. (2006) in Effectiveness of Instructional Video in a study of Agricultural Information Dissemination suggested varies video instructional messages influenced farmer's knowledge improvement, as effective as farmer's habit in receiving information through consultant's demonstration.

Scanfeld D, Scanfeld, V, and Larson E. L. (2010) in the results of his research on the dissemination of health information through social networks: Twitter and antibiotics concluded that social media sites offer a means of sharing health information. Further studies are needed to explore how these networks can provide a place to identify misuse or misunderstanding of antibiotics, promote positive behavior change, disseminate information that is valid, and how these tools can be used to explore for mengumpulkan health data. Research results Sankarto B.S., Mansjur S., Rusmini (2006) the dissemination of information Feedback of the results of research and technology of agriculture show that in general the user gives positive values towards the site of the library even though some are not agreed.

McFadden et al in Kadir (2002) defines information as data that has been processed in such a way so as to enhance the knowledge of someone who uses that data. Information on processing farm, breeding to marketing is a very important thing for growers of vegetables in his farming business activities. Information behavior models according to Wilson (1981) appeared as a consequence of the need felt by the users of the information in order to meet the needs of it, make demands on resources or formal or informal information service, which resulted in success or failure to find relevant information.

Based on previous research about Cyber Extension as a communication medium in Vegetable Farmer Empowerment by Mulyandari (2011) concluded that in general the level of utilization of cyber extension is still relatively low but due to lack of awareness of the existence and benefits of farmers against cyber extension and lacking the proper functioning of the group as a medium to share information and knowledge, as well as extension officers as an escort of unpreparedness in utilizing cyber farmer extension, it is necessary to other communication media are looking for easier and quicker to use vegetable growers as a communication medium in finding and exchanging information about agriculture to marketing.

In an attempt to improve their farming vegetables farmers desperately need information quickly and precisely. Therefore required a means of rapid, precise and easy information communication technology to use by a farmer of vegetables to communicate in an attempt to find the information needed. The mobile phone is one of the means of information communication technology has advantages in terms of speed, flexible and easy to use by farmers of vegetable to find information that they need.

Based on the above problems, the authors consider he had to do some research to find out how the effectiveness of the dissemination of agricultural information via the media mobile phone on vegetable farmers in Pacet subdistrict of Cianjur of West Java.

The problem formulation are examined as follows: (1) how large is the relationship between the characteristics of vegetable growers, information accessibility and communication with the intensity of the effectiveness of the dissemination of information in the field of agriculture through the medium of mobile phone in District of Pacet, Regency of Cianjur of West Java?; (2) the extent of the relationship between these three variables: characteristic, accessibility of information, communication and intensity of farming vegetables in District of Pacet, Cianjur Regency of West Java?; and (3) the extent of the relationship between the use of mobile phones against the smoothness and increased vegetables farmer business in District of Pacet, Cianjur Regency of West Java?

The purpose of this study was 1) to analyze the relationship between the characteristics of farmers ' vegetables, accessibility of information and communication intensity with the effectiveness of the dissemination of information in the field of agriculture; 2) Analyze the

relationships between the three independent variables: characteristic, accessibility of information, communication intensity of vegetables farmers; and 3) analyze the relationship between the use of mobile phones on the smoothness and increased farmer's vegetables business.

The benefits of this research is divided into two, namely: academically hope this research will contribute to the research and development of knowledge in the field of communication, particularly in the field of information and practical results of this study are expected to provide input for development of Food Crops and Horticulture (BPBTPH) Pacet Cianjur district of West Java.

THE FRAMEWORK OF THOUGHT

To know and analyze whether the dissemination of information in the field of agriculture through the medium of mobile phones on vegetable farmers in District of Pacet, Regency of Cianjur of West Java province had been effective, research needs to be done. In this research, there are four variables that are viewed and analyzed, keep in mind that the personal characteristics of the farmer, accessibility to information, communication and the intensity of the effectiveness of the dissemination of information in the field of agriculture through a cell phone/mobile media. There is this thinking framework in Figure 1.

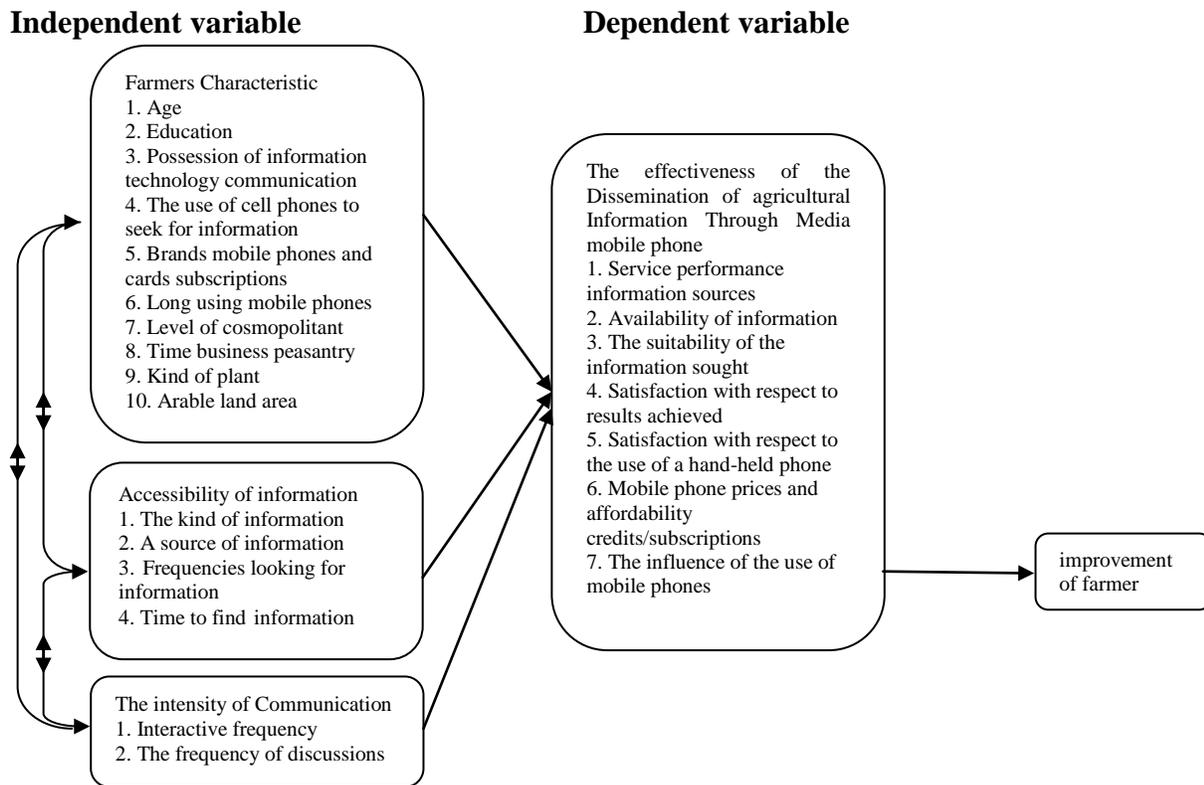


Figure 1 A framework of Thought

METHOD

Research methods used in this research is descriptive research survey method correlational. This research was conducted at the District of Pacet, Cianjur Regency of West Java Province. Retrieval and data collection was carried out in June - July 2013. The population in this research is a farmer in District of Pacet, Cianjur Regency of West Java Province which has a mobile phones and use it as one of the communication media. On a first pre-research data (January 14, 2012) retrieved data of the number of farmers in the Pacet subdistrict of as many as 645 people divided into 43 farmers group. As for sampling refers to the opinion of the Surakhmad (1998), i.e. by 20%, because it populations considered homogeneous, then obtained a sample of $645 \times 20\% = 129$ people. The next sampling conducted in probability, random simple way. The necessary data in this study consists of 2 types of quantitative as primary data and qualitative as secondary data with the function as supporting data. The data source in this research are vegetable farmers, Chairman of gapoktan, the Chairman of farmers group, and Chairman of the Association of traders of vegetables. Data was collected using three research instruments, namely questionnaire, interview and documentation. Efforts are being made in an effort to obtain a good research instrument validity was obtained by consultation with experts who mastered the instrument a questionnaire, such as agricultural extension officers and supervising lecturers as well as tested to respondents that have the same characteristics. Based on the results of analysis using SPSS version 20.0 of the entire instrument the research obtained from 18 responden obtained the numbers of 0.874. This means measuring instrument which is used to collect data in the field is very reliability. Further Data obtained were analyzed using Spearman Rank correlation test to see the keeratan relationship of the variables examined. Then the data are presented in the form of a table of equivalent score and frequency tables.

RESULTS And DISCUSSION

The Characteristics Of Vegetable Farmers

Vegetable growers as respondents in this research are vegetable farmers who lived in the town in District of Pacet, Cianjur Regency of West Java Province with age range between 17- >46 years. The majority of the respondents i.e. age of 68.2 percent were adults aged 26 to 45 years. Educational level of respondents most educated 62.8 percent as much as the ELEMENTARY SCHOOL. Most respondents have a degree of ownership of information technology communication medium (2 - 3 types) as 74.4 percent. The majority of mobile phones usage by the respondents to seek information in the fields of agriculture, agricultural technology, the prices of vegetables and marketing is as much of 93.8 percent. Mobile phone brands that most used by respondents is as many as 56.6 percent of Nokia. Sim cards used most widely is XL as 99.01 percent citing strong signal and many uses. The majority of duration in using mobile phones obtained data is high (more than two years) a total of 70.5 per cent. The level of cosmopolitan most are high (more than five times) as many as 40.3 %. A span of farmers attempted peasantry most are high (more than 5 years) as many as 60.5 per cent. A kind of plants constituting a type or a group of plants that dibudayakan husbandman. A crop that cultivated by husbandman the majority of low (1 kind) as many as 37.2 %, wide is land that is worked respondents in business activities taninya a very great extent extent (more than 1,000 meters) 71.3 percent.

Information accessibility

The type of information sought and obtained classified information in this type of agriculture, agricultural technology, the prices of vegetables, and marketing high in majority (more than 3 types of information) as much as 41.1 percent. The source of the information to be contacted or used by the respondents in seeking information most are moderate (2- 3 sources) as much as 51.9 percent. The most widely used Media by respondents was a cell phone as much as 96.1 percent and television as much as 66.7 percent. The most contacted source of information by the respondents is association of vegetables seller as much as 53.5 percent. While other sources of information that contacted by respondent is vegetables farmers 50.4 percent and agricultural extension officers as much as 53.5 percent.

Based on the results of the study known to the majority of the frequency of finding information that is low (less than 3 times) as much as 40.3 percent. While most of the time searching for information is low (less than 1 hour) as much as 62.8 percent

The Intensity of Communication

Most of the respondents interactive frequency generally low (less than 3 times) as much as 44.2 percent. While the frequency of discussions of the respondents generally low (less than 3 times) as 45.7 percent.

Effectiveness of agricultural information dissemination through a mobile phone

Effectiveness of disseminate information in the field of agriculture can be conducted by using various good media of communication that is both individuals and mass. Along with the development of information communication technology and the needs of quickly and correctly information of farmers, the mobile phone as an instrument or medium of information communication that is easy to use and fulfill the needs of farmers will information about agriculture to marketing

The research about the service source of information showing most respondents said satisfactory in the information given source far 79.1 percent. The majority of respondents said satisfactory on geniality source of information. Mostly respondents as much as 65.9 percent said satisfactory on dexterity and skill source of information. The majority ability source of information analyzing and conclude the requested information which is as many as 65.9 percent said satisfactory. Generally respondents as much as 67.4 percent said satisfactory on creativity source of information. Mostly respondents as much as 66.7 percent said satisfactory at a source of information, and most of the respondents as much 65.9 percent said satisfactory on the availability of information.

Availability of information in this research is the opinions of the respondents against the availability of agricultural information to marketing from the intended source of information. Most respondents as much as 55.8 percent expressed satisfaction on the availability of information on agricultural technology. Availability of agricultural information in the majority of the respondents i.e. as much as 42.4 percent satisfied. The availability of vegetables pricing information most respondents as much as 29.9 percent declared satisfactory and the availability of the information marketing most respondents, i.e. as much as 27.5 percent satisfactory.

Though data on the results of satisfaction towards the suitability of results achieved the majority of the respondents i.e. 62.0 per cent expressed as much to satisfy the conformity of information on agricultural technology. Proper agricultural information as much as 65.1 percent of respondents expressed satisfaction. The majority of the respondents i.e. as much as 52.7 percent expressed satisfaction at information marketing and compliance information that most respondents wanted i.e. as much as 32.7 percent satisfactory.

Satisfaction of the results achieved is the opinion of respondents on the results achieved from the acquisition of the information sought. Yield information most respondents i.e. as much as 59.7 percent satisfactory. The information sought and obtained generally respondents i.e. as much as 60.5 per cent expressed satisfaction. Speed and accuracy in finding information the majority of the respondents i.e. as much as 54.3 percent satisfactory.

The results of the investigation at ease the use of cell phone data about most of the respondents, as many as 61.2 percent said easy and speed and exactness in search of information the majority of respondents, a total of 70.5 percent said satisfactory.

The research about keterjangkauan price mobile phone cellular or mostly respondents, as many as 69.8 percent said affordable and range of price pulses or subscriptions mostly respondents, as many as 60.5 percent said reachable. Result of processed data on improvement business peasantry mostly respondents, as many as 77.5 percent expressing an increase in business peasantry

THE RELATION BETWEEN CHARACTERISTIC VEGETABLES FARMERS, ACCESSIBILITY OF INFORMATION AND INTENSITY COMMUNICATION WITH EFFECTIVENESS DISSEMINATE INFORMATION

The characteristics of farmers, information accessibility and intensity of communication has a real and very real relationships are positive with the effectiveness of the dissemination of information in the field of agriculture through the medium of mobile telephony in District of Pacet, Cianjur Regency, West Java Province (table 1). This shows the first hypothesis about the relationship between vegetables farmer characteristic, accessibility of information and communication with the intensity of the effectiveness of the dissemination in this research are acceptable. Thus the characteristics of the farmer aksesibilitas vegetables, intensity and determine the effectiveness of information dissemination of information

Tabel 1 The relation between characteristic farmers vegetables, accessibility of information and intensity communication with effectiveness disseminate information

Effectiveness of Information Dissemination	Score of Corelation test		
	Farmers Characteristic	Information accessibility	Intensity of Communication
	X1	X2	X3
Y	.315**	.412**	.497**
Information source provider performance	0.334**	0.261**	0.283**
Information availability	0.125	0.331**	0.313**
Compliance information sought	0.183**	0.325**	0.349**
Satisfaction of the achieved result	0.249**	0.222**	0.187**
Satisfaction to the handphone user	0.129	0.142	0.286**
Affordable price of cellphone/subscription	0.234**	0.242**	0.279**
Effect of using cellphone	0.157	0.185**	0.332**

** Correlation is highly significant at 0.01 level (2-tailed).

**THE RELATION BETWEEN THREE INDEPENDENT VARIABLES:
 KARAKTERSITIK, ACCESSIBILITY INFORMATION, AND INTENSITY
 COMMUNICATION FARMERS VEGETABLES**

As a whole the results of the relation between each of the three independent variables: characteristic, accessibility of information and communication intensity of vegetables farmers using cell phone in District of Pacet, Cianjur Regency, West Java Province show a very evident relation (Table 2). It is supported by evident relations and positive between characteristic vegetables farmers with information accessibility, characteristic vegetables farmers with intensity of communication, and information accessibility with intensity of communication. Thus, second hypothesis in this research acceptable.

Tabel 2 The relation between characteristic, accessibility of information, and the intensity of communication vegetables

Independent Variables	rcount	Remarks
Characteristik of Vegetables Farmer* Information accessibility	0,616**	Signicant correlation
Characteristik of Vegetables Farmer * Intensity of communication	0,541**	Signicant correlation
Accessibility to Information*Intensity of communication	0,702**	Signicant correlation

** . Correlation is highly significant at 0.01 level (2-tailed).

**Relation between Mobile phones users with Smoothness and Improving Vegetables
 Farmers Business**

Tabel 3 Relation between Mobile phones users with Smoothness and Improving Vegetables
 Farmers Business in District of Pacet, Cianjur Regency West Java Province

Dependent variables	Independent variables
	Mobile phones usage to seek information (X1.4)
Effect of using mobile phones (Y7)	-0.125

The table shows the results that there is no evident relationship between the use of mobile phones to search for information with increased farmer business respondents. Indicated more

diverse information obtained vegetable farmers through the use of mobile phones to search for information then make a farmer difficult to determine which information will be applied in the business of his farming. Thus the third hypothesis about the relationship between the use of mobile phones to search for information with influence of mobile phones use in this study cannot be accepted/rejected.

SUMMARY AND RECOMMENDATION

1. Generally respondent characteristic, information accessibility and communication intensity related to effectiveness of information dissemination in the field of agriculture through media of mobile phones in District of Pacet, Cianjur Regency, West Java Province.
2. Generally there is evident and positif relation between each of the three independent variables: characteristic, information accessibility and intensity of communication vegetables farmers using mobile phones District of Pacet, Cianjur Regency, West Java Province.
3. No evident relation between mobile phones utilization with the smoothness of vegetables farmers business development in District of Pacet, Cianjur Regency, West Java Province.

RECOMMENDATION

1. The utilization of mobile telephony in the future should be further improved again in an effort to spread information in agriculture, agricultural technology, agricultural products and marketing results.
2. Strategies and models need to be developed that are appropriate and effective in the use of mobile phones as media dissemination of information in the field of agriculture.
3. There needs to be an understanding by agricultural extension that increased farming does not depend on a mobile phones.

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