CONTENT ANALYSIS OF THE DESA APPS APPLICATION AS A NEW MEDIA IN AGRICULTURAL EXTENSION

Melisa Umi Cahyaningtyas [1], Alia Bihrajihant Raya[2] & Mesalia Kriska[2]
Agricultural Extension and Communication Study Program, Department of Agricultural Socio-Economics,
UGM Faculty of Agriculture, Yogyakarta
E-mail:melisa.umi.c@mail.ugm.ac.id

ABSTRACT

Agricultural extension is a non-formal education process for farmers to change their knowledge, attitudes and skills to improve farmer family's welfare. Agricultural extension media is used by extension worker to deliver information. Extension media get more modern along with the development of technology. One of the new media that can support agricultural extension is called as Desa Apps. The method used in this research is content analysis. Data is verified by using triangulation of source and researcher. The aims of this research are (1) identifying the features contained in the Desa Apps application as a new media in agricultural extension and (2) analyzing the kind of information, interactions and transactions, that are contained in Desa Apps as a new media in agricultural extension. This research is conducted towards the 'article' menu as a source of information, 'question and answer' menu as an interaction media and 'market' menu as a medium of marketing in the Desa Apps. The results show that Desa Apps as a new media have information features on the article menu based on facts, attractiveness toward readers, usefulness for readers, completeness of article content, description of problems and grammar and fairness for differences in views. The interaction feature on the question and answer menu has fulfilled the indicators of extension worker's role as motivators, innovators and communicators. The market menu in Desa Apps are measured with marketplace components. The result of the study suggests that Desa Apps is feasible as a new media in agricultural extension because it has three features that support agricultural extension activities.

Keywords: Content Analysis, New Media, Desa Apps, Agricultural Extension

INTRODUCTION

The development of science and technology is marked by the rapid advancement of information media. This additionally has an impact on Indonesia as a country in a global environment. The development of increasingly modern technology has led to changes in the information dissemination system, one of which is the dissemination of information about agriculture which is carried out through agricultural extension activities. According to Geovani (2018) agricultural extension workers are people who carry out extension activities to the target of extension, namely farmers, by providing direction and guidance. In extension activities there is communication between the communicator and the communicant, in this case the extension workers as a communicator and the farmer as a communicant. According to Onong (1999) communication is a relationship between two parties which both have the same meaning. In the process there is a transfer of knowledge / information from the source party to the communicant or recipient through the media which has an effect. Communication can be defined as the process of conveying thoughts or feelings by a communicator to another (communicant).

Communication media is used as an intermediariesthat delivers information between the source and the recipient. Media according to Hamidjoyo and Latuher (1993) are all forms of intermediaries used by humans to convey or disseminate ideas, ideas or opinions therefore the ideas, ideas or opinions expressed can be conveyed to the recipient. Technology developments have an impact on extension media using new media in the form of Android application software to make it easier for farmers to obtain information about agriculture in Indonesia. New media is internet-based media in its use. According to Lister et al. (2009) allows users to be able to interact therefore they do not only act as spectators but can additionally be involved in it. There are several software applications based on agricultural extension such as Desa Apps, FARMERS, SIPINDO, ERAGANO and others. In general, the software contains several main features, namely information features, interaction features and transaction features.

Extension activities are closely related to extension functions, including as a motivator,

communicator, innovator and facilitator. Content analysis is carried out to obtain information from the communication delivered either in the form of a documented symbol or documented data. Content analysis aims to analyze all forms of communication, such as newspapers, books, films, and so on. Regarding the extension function, content analysis needs to be done to analyze a form of communication between farmers and extension workers in relation to their function as motivators, communicators, innovators and facilitators through new media. Therefore, this research was conducted with the aim of:

1. Identifying the features contained in the Desa Apps application in supporting new media in agricultural extension.
2. Analyzing the information contained in the Desa Apps application in supporting new media in agricultural extension.
3. Analyzing the interactions contained in the Desa Apps application in supporting new media in agricultural extension.
4. Analyzing transactions contained in the Desa Apps application in supporting new media in agricultural extension.

METHOD

This study used a content analysis method which was carried out by triangulation of sources and triangulation of researchers. This research was conducted on several menu components contained in the Desa Apps application, including the article menu, the question and answer menu and the market menu. Analysis of the message content was carried out on all Desa Apps user activities from July to December 2018. The determination of July to December 2018 as a sample population by considering the actuality of the data studied. The research was conducted by analyzing all research objects and tabulating the results of the analysis. Data tabulation is carried out to get the percentage of each indicator so that aspects that need to be improved are known and are expected to be used as evaluation material for related parties.

The data collection technique in this study uses a recording technique by recording things in the form of primary data notes, notes and so on. The observation technique is by making direct observations of the object to be studied to obtain the desired data and information to determine the category to be studied. The interview technique is by conducting questions and answers to the manager of Desa Apps, this is done to get the desired data regarding the Desa Apps profile.

RESULTS AND DISCUSSION

A. Articles menu

The analysis carried out on the article menu includes several aspects, among others, accuracy of facts, interesting reading, useful for readers, completeness, continuity of publication, describing problems well, proper grammar and fairness or partiality. Based on the categories that have been determined to analyze of these various aspects in terms of several criteria from each aspect. Analysis of the accuracy of facts on the article menu using valid and fact-based reference sources. Reference sources are categorized as valid and the information contained in the articles is categorized based on facts if sourced from books, scientific journals and official websites owned by the government or bona fide companies. Invalid reference sources contained in the article mostly refer to unofficial websites such aswww.alodokter.com, wikipedia and blogspot. In addition, there are articles that do not include sources. Invalid article sources can cause readers to lose confidence in the information contained therein.

Then, an analysis was conducted to determine the attractiveness of an article in terms of the content of the article which was interesting and arousing emotions. Articles that can be categorized as arousing emotions are articles that contain an emphasis on trying and expressing opinions, touching feelings, arousing human thoughts and opinions such as invitations to try and express opinions in relation to the value of human interest. Articles that are categorized as interesting are articles that contain information that is new (up to date), unique (different from what is generally available), and rare (which are events that are difficult to find). Articles that contain new information in this research are mostly sourced from online portals as liputan6.com, tribunnews.com and several print media such as newspapers and magazines.

The aspect of reader attractiveness has an important role in assessing an article so that it can be interesting and accepted by readers. The greater the value of an article that evokes emotions and contains new, unique and rare information, the more interesting the article is to read. The results of the analysis show that as a whole the articles under study contain the information the readers need and all contain information according to the reader's interests. This can happen because the reader has activities related to the information published, for example regarding chili cultivation for horticultural farmers. The information contained in the article is close to the reader.

Furthermore, the article is reviewed from the aspect of completeness of the article content. The completeness of the article is seen from the basic structure of the article, namely opening, content and closing. The opening section of the

article is an important thing that can attract readers to continue reading the contents of the article. The opening section contains an introduction before the content section. The content section contains the information conveyed in the article and describes the main thoughts in detail. The closing section contains reaffirmations, invitations, and conclusions from the section contents. Regarding the completeness of the content of the article, an analysis was carried out that reviewed the 5W + 1H elements (what, why, when, where, who, how) contained in the article. The results of the analysis show that most of the articles do not contain a closing structure. In the structure of the content of the article, most of the elements contain what, who, why and how.

In the description aspect of the content analysis problem in terms of several criteria, including an explanation of the causes of the problem or topic of discussion and the aspect of describing the problem in detail. An explanation of the reasons for the emergence of the topics published is important to be included in the article, the goal is that readers know the urgency of the information contained in the article. Photos and videos included in the article are intended as a visual representation so that readers better understand the information conveyed, especially in articles that contain information in the form of methods and stages of the manufacturing process. In addition to analyzing the problem description aspects, articles are analyzed by

reviewing the aspects of the grammar mechanism used in the article. Analysis of grammar mechanisms in terms of indicators of language use that is easy to understand, sentence structure according to spelling refined and the absence of ambiguity. The results of the analysis show that most articles that do not comply with spelling refined rules are caused by writing in a paragraph of less than 5 (five) sentences. The paragraph writing format which consists of less than 5 (five) sentences is due to aesthetic considerations when the article writing is displayed on a smartphone so that the writing looks tidier and minimizes the saturation effect on the reader when reading the article. Consider aesthetic value when writing articles is displayed on a smartphone so that the writing looks tidier and minimizes the saturation effect on readers when reading the article.

Apart from being viewed from the aspect of grammar mechanism, articles are additionally viewed from the aspect of justice for the existence of different views to determine whether or not there is partiality in writing articles. This aspect is viewed from several criteria, including the absence of statements in the article that are biased towards one party. Only found in a few articles that provide examples of the product brands listed. The criteria for a good article are neutral and not inclined to certain parties. The results of the analysis of the article menu of the Desa Apps application can be seen in Table 1

Table 1 Results of the Desa Apps Article Menu Analysis

No.	Indicator	Analysis Results
1.	The accuracy of the facts	The source of the information contained is valid and based fact
2.	Readers' Appeal	Presenting up to date information
3.	Usability For Readers	Contains information that is closely related to the reader
4.	Completeness of Article Contents	Contains the structure of the opening, filling (5W + 1H) and closing article structure
5.	Problem Description	Provides detailed information accompanied by photo / video explanations
6.	Grammar	Use language that is easy to understand, not ambitious and according to Enhanced Spelling
7.	Justice Over The Existence of Different Views	There are no articles that have a bias towards one party

Source: Secondary Data Analysis 2019

The results of the Desa Apps article menu analysis show that overall it has fulfilled the aspects that are used as indicators to determine the appropriateness of the Desa Apps article menu as a source of information on new media in counseling. This shows that the Desa Apps article menu is suitable to be used as a source of information for farmers in supporting farming activities carried out, so that without meeting directly on extension activities farmers can still access information through the Desa Apps article menu.

B. Market Menu

Desa Apps as one of the media in agricultural extension which carries out its function to disseminate information to users. As a new media in agricultural extension, Desa Apps has a role to assist extension workers in carrying out extension activities. Extension workers have a function as motivators, innovators, communicators and facilitators. Desa Apps has a question and

answer menu on this menu users can ask for solutions to problems faced in the field. This shows that the question and answer menu has a role that is closely related to the role of extension workers. The analysis carried out on the question and answer menu aims to determine the role of Desa Apps as a new medium in agricultural extension.

The questions analyzed in this study include all discussions that occur in the question and answer menu. The analysis carried out on the question and answer menu includes several categories in relation to the function of extension agents as motivators, innovators, communicators and facilitators. Analysis of the question and answer menu by paying attention to the function of the extension workers as a motivator by analyzing statements that encourage users to carry out an activity. Analysis of the question and answer menu by paying attention to the extension workers function as an innovator is carried out by knowing the statements that contain ideas / ideas as well as a new way of dealing with agriculture. Analysis of the question and answer menu by paying attention to the function of the instructor as a communicator is carried out by knowing the understanding of the

content of the message (mastery of the topic of discussion), informative messages and the use of language that is easy to understand. In terms of the messages conveyed, analysis is additionally carried out in terms of language that is easy to understand to find out the convenience for other users in understanding the language used.

Analysis of the question and answer menu by paying attention to the function of the extension workers as a facilitator to find out the facilities provided to users of the question and answer menu. There are two categories analyzed, namely in terms of information facilities and service facilities provided. The information facility in question is to provide a means for users of the question and answer menu to make it easier to obtain information. In this question and answer menu, the role of a facilitator is shown by providing recommendations to users who ask questions, such as recommendations on control and how to deal with pests, recommendations for making organic fertilizers and linking with the market menu to expand market access. The results of the analysis on the question and answer menu of the Desa Apps application can be seen in Table 2

Table 2 Analysis Results of the Desa Apps Question and Answer Menu

No.	Indicator	Information
1.	Motivator	Most of the questions and answers contain sentences that are commands that motivate the user to do according to the expert's recommendation.
2.	Innovators	The information submitted by the expert contained ideas / ideas / methods that were new to the questioner.
3.	Communicator	Expert understand the topic presented, convey informatively and use language that is easy to understand
4.	Facilitator	Provide information facilities and services for users who ask questions.

Source: Secondary Data Analysis 2019

The results of the analysis of the question and answer menu in Desa Apps show that overall it has fulfilled the aspects that are used as indicators to determine the feasibility of the question and answer menu as a new media in counseling. This shows Desa Apps question and answer menu is feasible to be used as a medium of communication among farmers and between farmers and extension workers in supporting agricultural business activities, therefore so that without meeting directly on extension activities farmers can still interact to exchange ideas on agriculture by accessing Desa Apps question and answer menu.

C. Market Menu

Desa Apps as one of the extension media provides a solution by providing a market menu as

a place for Desa Apps users to market their agricultural products. In the market menu, analysis is needed to determine the transactions that occur in it. During the period July - December 2018, there were 74 product items offered by sellers on the Desa Apps market menu. Products offered on the market menu include crops, processed products and products in the form of machine technology. The analysis is carried out by reviewing the suitability of the components contained in the market menu with the marketplace components according to Putra (2012). The components of the marketplace include sellers, customers, goods and services, infrastructure, front-end, back-end, intermediaries, business partners and support services. The results of the analysis of the Desa Apps market menu can be seen in Table 3.

Tabel 3. Result of Desa Apps Market Menu Analysis

No	Category	Information
1	Customer	Market menu customers are all Desa Apps users.
2	Seller	Each Desa Apps user can make sales on the available market menu.
3	Infrastructure	There is infrastructure that supports the operation of the Desa Apps application such as an internet network, software in the form of web admin and hardware as support to access.
4	*Front-end*	There is a front-end to the Desa Apps application, including: electronic catalog, search engine, seller portal (menu market).
5	*Back - end*	There is a functioning Desa Apps web back-end as a data storage / database.
6	*Intermediaries*	The Desa Apps application has a role as a third party between the seller and the buyer.
7	Business partner	There is no collaboration with other business partners as a support in fulfilling market menu facilities
8	Support services	The absence of supporting services such as certification services as third party guarantees for security services and customer complaint service providers in the Desa Apps application. So that the third party (application manager) has not guaranteed the seller's trust because it is only viewed in terms of the feasibility and suitability of the product being offered.
9	Goods and services	
	a. Plant	There are 25 product types of plants such as seeds and ornamental flowers
	a. Crop commodity (plant / animal)	There are 37 crop products that are sold from various commodities
	b. Processed products	There are 10 processed products such as honey, sugar ants and powdered drinks made from spices
	c. Tools / machines	There are 2 products in the form of machines such as egg incubators

Source: Primary Data Analysis 2019

The results of Desa Apps market menu analysis show that overall it has fulfilled the aspects that are used as marketplace indicators to determine the appropriateness of the Desa Apps market menu as a new media in extension. This shows that the Desa Apps market menu is feasible to be used as a means of marketing agricultural products to support agricultural business activities, so that without meeting directly with buyers, farmers can still make transactions by accessing the Desa Apps market menu.

CONCLUSION AND RECOMMENDATION

1. The Desa Apps application is an internet-based digital media that presents information features contained in the article menu, interaction features found on the question and answer menu and transaction features on the market menu so that it is feasible as a new media in agricultural extension.

2. The information feature contained in the Desa Apps application is in the form of writing articles. The articles written have included fact-based indicators, reader attractiveness, usability for readers, completeness of article content, description of problems, grammar and fairness for differences in views but most articles do not contain aspects of valid reference sources, arouse emotions, and add a closing section to each article. As an information feature Desa Apps has disseminated information to add insight to users so that Desa Apps is feasible as a new medium in agricultural extension.

3. The interaction feature found in the Desa Apps application is in the form of a discussion in the question and answer menu. The message conveyed in the question and answer menu includes all indicators of the role of extension workers as motivators, innovators and communicators, but the facilitator aspect shows that it is still relatively low on the indicators of service facilities. As an interaction feature for discussions between users, Desa Apps is feasible as a new medium in agricultural extension.

4. The transaction features contained in the Desa Apps application are in the form of buying and selling carried out by Desa Apps users who act as sellers and customers in the market menu. The Desa Apps market menu is in accordance with the marketplace component. In the aspect of business partners and supporting services, the Desa Apps market menu has not met the marketplace indicators because Desa Apps does not have cooperation with other parties.

REFERENCES

Geovani, E. (2018). *Perilaku Pemanfaatan Internet oleh Penyuluh PertanianLapangan di Kabupaten Kulon Progo.* Universitas Gadjah Mada. Skripsi.

Hamidjojo dan Latuheru. (1993). *Media Pembelajaran dalam Proses Belajar Mengajar.* Ujung Pandang: IKIP Ujung Pandang Press.

Lister, M. (2009). New Media: A Critical Introduction. Newyork: Routledge.

Onong, U. (1999). *Ilmu Komunikasi dan Praktek. Bandung*: PT. RemajaRosdakarya.

Putra, A. K. 2012. Rancang Bangun Aplikasi Marketplace Penyedia Jasa Les Private Di Kota Pontianak Berbasis Web. *Jurnal Sistem dan Teknologi Informasi (JUSTIN)*, 2(1), 173-180.