

Developing Country Studies

ISSN 2224-607X (print)

ISSN 2225-0565 (online)

Vol.4 No.26

2014

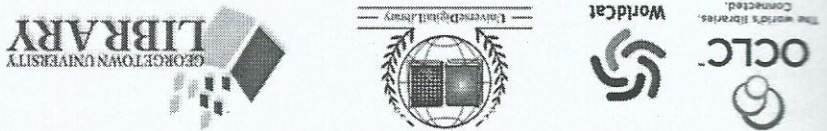
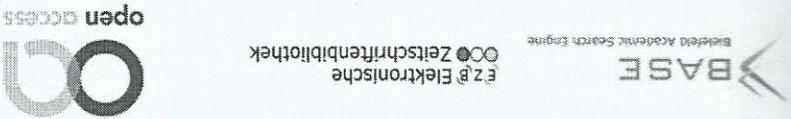
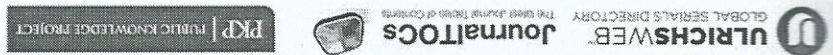


International Institute for Science, Technology & Education
Accelerating Global Knowledge Creation and Sharing

About Journal of Developing Country Studies
 Journal of Developing Country Studies is a peer reviewed journal published by IISTE. The journal publishes original papers at the forefront of social, economic, trade and legislative issues related to developing countries. The journal is published in both printed and online versions.

Developing Country Studies is published by IISTE and follows a quarterly publication schedule. General inquiries and Paper submission: contact_admin@iiste.org or DCS@iiste.org

Index of this journal



IISTE's acknowledgments to the supports from co-hosting universities worldwide

- University of North Carolina at Charlotte, United States
- California State University, United States
- The City University of New York, United States
- Aristotle University of Thessaloniki, Greece
- Universiteit Leiden, Netherlands

Articles

1-10	<i>Shehri Ahmed</i> Bangladeshi Consumers' Purchase Intention toward Global Brands over Local Brands
11-19	<i>Osei Aaron Debrah</i> Food Security Incidences Based on Monetary and Caloric Poverty Lines in Mbeya and Makeke Districts, Tanzania
20-27	<i>Dorah H. Mende, Kim A. Kayunze, Maulid Mwatawala</i> Impact of National Minimum Wage on Low Income Workers in Calabar Municipality, Nigeria
28-36	<i>Aseye Fidelis Anake, Takon, Samuel Manyo, Ogar, Ogar Afom</i> Opportunities and Challenges of Regionalism: Zimbabwe in the Comesa Customs Union
37-41	<i>Kumbrai Ngaru, Veronica Mufudza, Shupikai Zebon, Zadzisai Machingambi</i> Psychosocial Determinant of Creativity among Secondary School Students in Saki, Oyo State, Nigeria
42-50	<i>OFOLE Ndidi M., Ezeokoli R. N.</i> Rejected People: Beggars with Disabilities in the City of Harare, Zimbabwe
51-56	<i>TAFADZWA RUGOHO, BEKEZELA SIZIBA</i> Techno-Scientific Temper of Three Nigerian Newspapers
57-67	<i>Herbert Batta, Ita Ekanem, Nevelyn Udousoro</i> The Use of Online Tools by Information Professionals in Medical Libraries in Oman
68-79	<i>Salim Said AlKindi, Mohammed Nasser Al-Sugri, Abdullah Hamood Zaher Al-Sarmi</i> The Technical and Vocational Education and Training (TVET) Stigma in Developing Countries The Case of the Furniture Sector in Ghana
80-89	<i>Agyei-Boakye Isaac, Quayson Ebenezer, Nuttassy Kennedy Newton</i> Value Ethics in Marketing FMCGs in East African Common Market
90-94	<i>John Yabs, Victor Ndambuki</i> The Role of Investment Law in Housing Construction in Duhok City, Kurdistan Region
95-104	<i>Hilima A. Othman</i> Analyzing Strategies and Measures for Inclusive, Sustainable and Shared Growth: Egypt After the Uprisings
105-114	<i>Sherifa Fouad Sherif</i> An Exploratory Factor Analysis of the Revision Strategies Questionnaire in an Underachiever ESL Writers' Context
115-124	<i>Mardatul Aknam Din, Siti Jamilah Bidin</i> Local Revenue Mobilization Mechanisms: Evidence from the Abura-Asebu-Kwamankese District in Ghana
125-137	<i>Ernest Opoku, Christian Kyeremeh, Daniel Odoom</i>

138-145	<i>Kareem, W.A, Asa, Olusola Adekunle, Lawal, Museedig Olufemi</i> Due Process Compliance in Capital Projects Execution In Tertiary Institutions In Southwest Nigeria
146-153	<i>Kareem, W.A., Asa, Olusola Adekunle, Lawal, Museedig Olufemi</i> Resources Conservation and Waste Management Practices in Construction Industry
154-158	<i>ANTHONY IGWE, J. U. J ONWUMERE, OBIAMAKA P. EGBO</i> Examining the Effect of E-Commerce on Business Performance in A Business Environment
159-165	<i>ANTHONY IGWE, J. U. J ONWUMERE, OBIAMAKA P. EGBO</i> Human Resource Management, International Labour Standards and Globalization
166-175	<i>Mohamad Ikbal Bahua</i> Competency Development Model for Agricultural Instructors in Gorontalo Province, Indonesia
176-191	<i>Emmanuel Baffour-Awuah</i> Of Marriage, HIV-test Certificate, and the Church: What does the Youth Say?
192-199	<i>Uduakobong S. Inam</i> Rebasing of the Nigerian Economy and the Real Imperatives of Development: A Case for Agricultural Renaissance in Nigeria.

Competency Development Model for Agricultural Instructors in

Gorontalo Province, Indonesia

Mohamad Ikkal Bahua

Faculty of Agriculture, State University of Gorontalo, Indonesia

*E-mail : m.ibahua@gmail.com

Abstract

The purposes of this study are to analyze internal factors that can formulate a model of competence development of agricultural instructor in Gorontalo Province and to analyze the degree of relationship of internal factors that can formulate a model of competence development of agricultural instructor in Gorontalo Province. The research applied survey method. The model is verified by using analytical SEM (Structural Equation Model) through LISREL (Linear Structural Relationships) program. The results show that there is an influence of variables characteristics, motivation and self-reliance towards agricultural instructor's competency. Simultaneously, three variables influence the competency of agricultural instructor as 0.74 units (74%) at significant $\alpha = 0.05$. There is a coefficient of relationship between variables, that is; the coefficient of relationship between characteristics and self-reliance of extension agent, the coefficient of relationship between the characteristics and the motivation of extension agent and self-reliance of the extension agent.

Keyword: Competency, Characteristics, Motivation, Self-reliance, Agricultural Extension

Introduction

Agriculture instructors are people who play a role in empowering the farmers as the main subject of agricultural extension, which has been given through the adult education system, aims to develop the farmers' behavior in order they can farm well, have a better live, and carry out the business properly. The success of an agriculture instructor is determined by his competency in giving the information to farmers, such as cultivation technology, price, market access and capital, also the agricultural development policy in the working area of the agriculture instructor. Therefore, an agriculture instructor should have a good ability in communication, have broad knowledge, be independent, and be able to adjust himself based on the characteristics of the farmer. In this case, the agriculture instructor should be able to arrange the lesson plan that will be implemented through an effective and efficient learning method and media based on the need of the society.

The competency of the agriculture instructor is explained in the duties and functions of an agriculture instructor in supporting the farmers in developing their agribusiness, because a competency is an ability that the agriculture instructor should have, whether it is a technical competency, or a managerial competency. The competency of agriculture instructor should be supported by the cognitive, affective, and psychomotor ability. While the competency that the agriculture instructor has, it is expected that the agriculture instructor will be able to complete the task properly in carrying out the agricultural extension.

In the reality, there are a lot of agriculture instructors who have low competency in doing their job as agriculture instructor in the development of agricultural sector. This reality is affected by several policies which require agriculture instructor do not work in field based on their competency. Tjitropranoto (2005) said that agriculture instructors are not able or even have no chance to develop their professional ability as the function officers of agriculture instructor because there are a lot of activities under their responsibility, and some of them are not appropriate with the job as a professional agriculture instructor. Sumardjo (2008) explained that lack of competency of agriculture instructor is estimated related to the process of learning which law of learning because the agriculture instructor is stuck on the formality demands for certificate adjustment for agriculture instructor functional position.

District/City	Number of agriculture instructor (people)
District of Gorontalo	174
District of Bone Bolango	91
District of Boalemo	83
District of Pohuwato	79
District of Gorontalo Utara	29
Gorontalo City	25
Total of Gorontalo Province	481

Table 1. The numbers of the population of the agriculture instructors

The analysis unit of the research was agricultural instructor numbered to 481 instructors and numbers of assisted farmers were 45,409 farmers, with assumption that the main duty and role of the agriculture instructors are the same, and, generally, the agriculture instructors in Gorontalo Province are the civil servants. The sampling was done through "proportional random sampling," from the list of the names of agriculture instructors in Gorontalo Province. The number of the agriculture instructors' population is described on Table 1.

Population and Sample

The variables of research were Independent variables (X) were characteristics of agricultural instructor (X₁), motivation of agricultural instructor (X₂), independence of agricultural instructor (X₃), while the dependent variable was competency of agricultural instructor (Y).

Variables

The research was conducted in Gorontalo Province which has five districts and one city. The reasons of determining research site, were (1) Gorontalo is a province which programming the agricultural with maize as the main crop, (2) the amount of agriculture instructors are dominated by the agriculture instructors of crops, (3) the farmers in Gorontalo Province, generally, cultivate the maize as the main crop to develop the family economic level. The research was conducted from April to August 2013. The research was post facto. Ex post facto is a research model that assesses the events that have occurred or an evaluation of factual condition in the field.

Research Site

Methodology of Research

Based on the previous explanation, the research of the competency development of agriculture instructors in Gorontalo Province is important to be done as an effort to develop the process of learning to the farmers in producing the agribusiness and to help the government in planning the program of the agriculture professionalism development, by increasing the level of education and training of agriculture instructors which related to the jobs in work area. This research will uncover the empirical facts related to the competency of the agriculture instructors in carrying out their duty in supporting the farmers that will produce a model of development competency of agriculture instructor in succeeding the program of agricultural development in Gorontalo Province.

The research result of Muliahy (2009) concluded that the competency of the agriculture instructor in developing the agribusiness lowland rice farming in three districts of West Java (Karawang, Subang, and Sukabumi) is categorized as low (25%) in agricultural information and agriculture instructor leadership's management. Bahua (2010) in his result of research stated that the competency of the agriculture instructors in Gorontalo Province should be developed in the sector of agricultural extension program planning and agriculture instructor leadership.

The research result of World Bank (Hadji, 2000) concluded that, the competency of Field Agriculture Instructor is very low. This is caused by several factors, such as: (1) the knowledge and skill of the agriculture instructor, which are very low, sometimes are not appropriate with the farmers' need, (2) The Field Agriculture Instructors are not prepared and trained to carry out the agricultural extension. If there is a training for Field Agriculture Instructor, the training is not relevant with their job as Field Agriculture Instructor in their working area, and (3) in many things, the Field Agriculture Instructors have missed the information from the farmers and fisherman whom are handled by him.

By using Solvin's formula (Sevilla, 1993), the number of agriculture instructor sample of this research in error standard as 8% is:

$$n = \frac{N}{1 + N(e)^2 + N(e)^2}$$

$$n_1 = \frac{N!}{N} \times n$$

$$n = \frac{481}{1 + 481(0,08)^2} = 118$$

Note:

n = number of sample

N = number of population

e = error standard

n₁ = number of sample strata i

N₁ = number of population strata i

By knowing the number of research sample, then, proportionally, the number of agriculture instructors sample in each district/city of Gorontalo Province is explained in Table 2.

Tabel 2. Number of agriculture instructor sample in each district/city

No	District/City	Number of sample (people)
1	District of Gorontalo	43
2	District of Bone Bolango	22
3	District of Boalemo	20
4	District of Pohuwato	20
5	District of Gorontalo Utara	7
6	Gorontalo City	6
Total		118

Research Method

This research applied survey method through interview and questionnaire. The design of research is structural equation model of factors influence the competency of agriculture instructor. It uses the hypothesis frame to investigate the influence of independent variable towards dependent variable. Then, the hypothesis frame is implemented to formulate the measurement model and structural equation model based on SEM (Structural Equation Model). The equation model and hypothesis frame can be seen as follow:

(a) Measurement equation model

(1) The measurement of characteristic variable

$$X_{1,1} = \lambda_1 X_1 + \delta_1$$

$$X_{1,2} = \lambda_2 X_1 + \delta_2$$

$$X_{1,3} = \lambda_3 X_1 + \delta_3$$

$$X_{1,4} = \lambda_4 X_1 + \delta_4$$

$$X_{1,5} = \lambda_5 X_1 + \delta_5$$

$$X_{1,6} = \lambda_6 X_1 + \delta_6$$

$$X_{1,7} = \lambda_7 X_1 + \delta_7$$

$$X_{1,8} = \lambda_8 X_1 + \delta_8$$

$$X_{1,9} = \lambda_9 X_1 + \delta_9$$

(2) The measurement of motivation variable

$$X_{2,1} = \lambda_{10} X_2 + \delta_{10}$$

$$X_{2,2} = \lambda_{11} X_2 + \delta_{11}$$

$$X_{2,3} = \lambda_{12} X_2 + \delta_{12}$$

$$X_{2,4} = \lambda_{13} X_2 + \delta_{13}$$

$$X_{2,5} = \lambda_{14} X_2 + \delta_{14}$$

$$X_{2,6} = \lambda_{15} X_3 + \delta_{15}$$

(3) Pengukuran peubah kemandirian

$$X_{3,1} = \lambda_{16} X_2 + \delta_{16}$$

$$X_{3,2} = \lambda_{17} X_4 + \delta_{17}$$

$$X_{3,3} = \lambda_{18} X_4 + \delta_{18}$$

$$X_{3,4} = \lambda_{19} X_4 + \delta_{19}$$

④ The measurement of competency variable

$$\begin{aligned}
 Y_1 &= \lambda_{20} Y_1 + \epsilon_1 \\
 Y_2 &= \lambda_{21} Y_1 + \epsilon_2 \\
 Y_3 &= \lambda_{22} Y_1 + \epsilon_3 \\
 Y_4 &= \lambda_{23} Y_1 + \epsilon_4 \\
 Y_5 &= \lambda_{24} Y_1 + \epsilon_5 \\
 Y_6 &= \lambda_{25} Y_1 + \epsilon_6 \\
 Y_7 &= \lambda_{26} Y_1 + \epsilon_7 \\
 Y_8 &= \lambda_{27} Y_1 + \epsilon_8 \\
 Y_9 &= \lambda_{28} Y_1 + \epsilon_9 \\
 Y_{10} &= \lambda_{29} Y_1 + \epsilon_{10} \\
 Y_{11} &= \lambda_{30} Y_1 + \epsilon_{11}
 \end{aligned}$$

Result and Discussion

Result of Research

The Condition of Agriculture Instructor

The age of agriculture instructors in Gorontalo Province are around 38 to 58 years old, with the average of age as 50.44 years. Most of the agriculture instructors (63.6%) are around 50 to 58. It means that almost of agriculture instructors are elderly people. If it is connected with the agriculture instructors' retirement age as 60 years of age, then it is estimated that within ten years from now, the number of agriculture instructors in Gorontalo Province will decrease as 63 percent.

The agriculture instructors' working period in Gorontalo Province is around 7 to 37 years, with the average as 24.7 years. Almost of the agriculture instructors' working period is around 21 to 37 years. This shows that the agriculture instructors in Gorontalo Province generally are elder and already saturated to their profession as the field agriculture instructor, so that they are not able to find out the information and the innovation of agricultural technology which can be a material of agricultural extension to the farmers. This condition causes the lack of the agriculture instructors' competency in developing the learning to the farmers.

The numbers of assisted farmers in Gorontalo Province are around 45 to 412 people; with the average are 209 people. Some of agriculture instructors (35.6%) have 238 to 412 assisted farmers. According to the regulations issued by the Ministry of Agriculture (2004), the ideal numbers of farmer groups which can be fostered by the agriculture instructor are 6 – 8 groups of farmers or 150 – 200 farmers. It means that numbers of assisted farmers in Gorontalo province is more than 8 groups of farmers.

Therefore, it affects the decrease of the agriculture instructors' competency in developing the farmers in the target area. 65% of agriculture instructor in Gorontalo Province are the Diploma 3, and the remaining 35% are Senior High School. The functional and technical training that have been followed by the agriculture instructors in last 10 years is education and training of the development of crops in 2008 – 2009. The working territories of agriculture instructors in Gorontalo Province are generally located in the lowlands, ramps, and hills. The working territories generally are related to the cultivation developed by the farmers which are crops (rice and maize). The frequency of the interaction of agriculture instructor with the assisted farmers is 3 times in one growing season, they are the first planting, maintenance and harvesting.

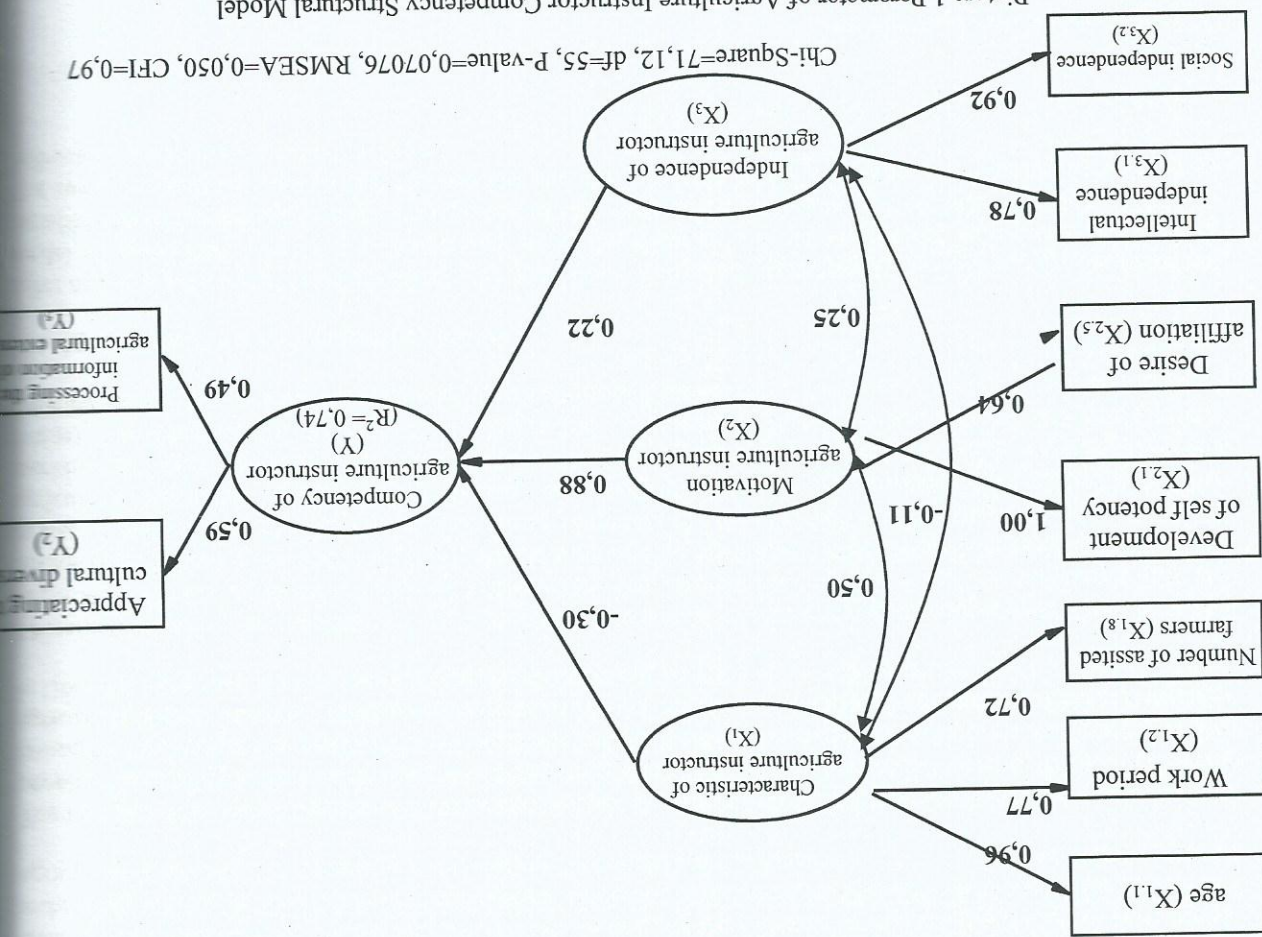
The Agriculture Instructor Competency Model

After analyzing the variable which affects the agriculture instructor's competency, it is found that the structural model of agriculture instructor's competency as in the Picture 1. It shows that the influence track of each variable can be formulated through the equation of structural model as follow: $Y = -0.30X_1 + 0.088X_2 + 0.22X_3$. The result of analysis showed that the relation and the influence of each variable/sub-variable on agriculture instructors' performance model in Table 3.

Table 3. Decomposition of the influence of each variable/sub-variable of agriculture instructor's competency variable

The relationship between variables/sub-variables				
Influence	Influence		t-count	
	Directly	Indirectly		
Competency of Agriculture Instructor	-0,30	-	-2,58	← Agriculture Instructor
Characteristics of Agriculture Instructor	-	-0,18	-3,12	← Expressing cultural diversity
Characteristics of Agriculture Instructor	-	-0,15	-2,94	← Information of agricultural extension
Motivation of Agriculture Instructor	0,88	-	3,34	← Competency of Agriculture Instructor
Motivation of agriculture instructor	-	0,52	5,17	← Expressing cultural diversity
Motivation of agriculture instructor	-	0,44	4,45	← Processing the information of agricultural extension
Independence of Agriculture Instructor	0,22	-	2,19	← Competency of Agriculture Instructor
Independence of agriculture instructor	-	0,13	2,37	← Expressing cultural diversity
Independence of agriculture instructor	-	0,11	2,29	← Processing the information of agricultural extension

Remark: $t_{0,05}$ table = 1,96



Picture 1. Parameter of Agriculture Instructor Competency Structural Model

The influence of agriculture instructors' motivation appears in the merits of the agriculture instructors' competency in appreciating the cultural diversity and in processing the information of agricultural extension

The result of research shows that motivation variable significantly the competency of the agriculture. It means that the agriculture instructors' motivation will determine the merits of the competency of the agriculture instructors with the influence coefficient as 0.88 significantly in $\alpha = 0.05$.

B. The Influence of Motivation towards the Competency of Agriculture Instructor

The research result suits to the research result of World Bank in Hadi (2000) which concluded that, the performance of Field Agriculture Instructor is very low, it is showed by: (1) the knowledge and skills of the agriculture instructors is very low; (2) Field Agriculture Instructor is not prepared and trained to do the agricultural extension activity. If there is training for Field Agriculture Instructor, the training is not relevant with their job as Field Agriculture Instructor in their work area; and (3) in many things, the Field Agriculture Instructors have missed the information from the farmers and fisherman whom are handled by him.

The decreasing of the competency of agriculture instructor in appreciating the cultural diversity includes the lack of the agricultural extension's material that is suitable with the local wisdom and the lack of the agricultural extension's media that is suitable with the local wisdom. The decreasing of processing the information of agricultural extension includes the lack of agricultural extension's media, the lack of the use of computer to search for and to deliver the information, and the lack of the use of learning method in each extension.

The result of research shows that the characteristic variable directly influenced significantly the competency of agriculture instructors. It means that the characteristic of the agriculture instructors will determine the merits of the agriculture instructors' competency with the influential coefficient value as -0.30 significantly in $\alpha = 0.05$. The influence of agriculture instructors' characteristic appears in the merits of the agriculture instructors' competency in appreciating the cultural diversity and the in processing the information of agricultural extension (Table 3). It indicates that if there is an increasing of a unit of the agriculture instructors' characteristic, it will decrease the competency of agriculture instructor in appreciating the cultural diversity as 0.18 units, and it will decrease the competency of agriculture instructor in processing the information of agricultural extension as 0.15 units.

A. The Influence of Characteristic toward The Competency of Agriculture Instructor

Discussion

$$Y = -0,30X_1 + 0,88X_2 + 0,22X_3$$

B. The Equation of Structural Model:

$$Y_5 = 0,49 Y$$

$$Y_2 = 0,59 Y$$

(4) The loading of agriculture instructor's performance (Y):

$$X_{3,2} = 0,92 X_4$$

$$X_{3,1} = 0,78 X_4$$

(3) The loading of agriculture instructor's independence variable (X_3):

$$X_{2,5} = 0,64 X_3$$

$$X_{2,1} = 1,00 X_3$$

(2) The loading of agriculture instructor's motivation (X_2):

$$X_{1,8} = 0,72 X_1$$

$$X_{1,2} = 0,77 X_1$$

$$X_{1,1} = 0,96 X_1$$

(1) The loading of the agriculture instructor's characteristic variable (X_1):

A. The equation of measurement model:

The equation of measurement model and structural equation model in this research is explained as follow:

Based on the model suitability test, the tested model is able to estimate the population covariance matrix or the model parameter estimation result can be enforced to the research population. Thus, the result of the model suitability test showed the measurement model is fit with the data.

The developing of the competency of agriculture instructor in appreciating the cultural diversity includes the increasing of the agricultural extension's material that is suitable with the local wisdom and the increasing of the agricultural extension's media that is suitable with the local wisdom. The increasing of processing information of agricultural extension includes the increasing of agricultural extension's media, the use of computer to search for and to deliver the information, and the use of learning method in each extension.

The result of research shows that independence variable influences significantly the competency of the agriculture. It means that the agriculture instructors' independence will determine the merits of the competency of the agriculture instructors with the influential coefficient as 0.22significantly in $\alpha = 0.05$.

C. The Influence of Independence towards the Competency of Agriculture Instructor

It can be done by increasing the formal education level of the agriculture instructors, facilitating the agriculture instructor in training activities, and repairing the administration system of agricultural extension department, either in evaluating the agriculture instructors' performance, communication, and cooperation among the agriculture instructors as an effort in increasing the process of learning for the farmers to develop their agribusiness productivity.

The research result shows that there is a significant influence of agriculture instructors' motivation to the agriculture instructors' competency from the dimension of self-potential and a desire to be affiliated. Thus, the research can help the Department of Agricultural and the local government in developing the competency of agriculture instructor by developing the motivation of agriculture instructors from the dimension of self-development and a desire to be affiliated.

A research of Elton Mayo at General Electric Company, in Hawthorn, Chicago, has an effect to the work groups' motivation and the employees' attitude in working. The contributions of the result of research for the development of motivation theory are: (1) a desire to be respected as a human evidently is more important in developing the motivation and productivity of the employees' performance than the working environment condition, (2) the employees' attitude is influenced by current condition, either it is inside or outside the working environment, (3) the informal groups in work environment have an important role in forming the habit and the attitude of the employees, and (4) groups' cooperation do not occur accidentally, but it should be planned and developed (Yusuf, 2008).

The dimensions of agriculture instructors' motivation, which is closely related to the competency of agriculture instructors, are: (1) the development of self-potential includes the expectation to follow a formal education, training, and conduct the field trials of location specific technology, and (2) a need for affiliating, includes: desire to be accepted by others in the live and work's environment, desire to be respected, the desire to move forward and not fail, and the desire to participate.

The developing of the competency of agriculture instructor in appreciating the cultural diversity includes the increasing of the agricultural extension's material that is suitable with the local wisdom and the increasing of the agricultural extension's media that is suitable with the local wisdom. The increasing of processing information of agricultural extension includes the increasing of agricultural extension's media, the increasing of the use of computer to search for and to deliver the information, and the increasing of the use of learning method in each extension.

(Table 3). It indicates that if there is an increasing of a unit of the agriculture instructors' motivation, it will decrease the competency of agriculture instructor in appreciating the cultural diversity as 0.52 units, and it will decrease the competency of agriculture instructor in processing the information of agricultural extension as 0.44 units.

(2) The significant influence of agriculture instructor's motivation variable is determined by two dimensions, such as self-potential development and the desire to be affiliated (Picture 1). It indicates that the increasing

(1) The significant influence of agriculture instructor's characteristic variable is determined by three dimensions, such as age, working period, and number of assisted farmers (Picture 1). It indicates that the increasing of age, work period, and number of assisted farmers will cause the competency of agriculture instructors to be decreased, while another six dimensions of agriculture instructors' characteristic, such as formal education, functional training, technical training, working area, the scope of working area, and interaction frequency of agriculture instructors to the farmers in this research have coefficient estimation of weight factor less than 0.40 insignificantly in $\alpha = 0.05$. It means that the six dimensions are not valid in measuring the competency of the agriculture instructor.

The influence of agriculture instructor's characteristic, motivation, and independence variable is a significant contribution from several sub-variables/dimensions of research. It will be explained as follow:

The result of research shows that characteristic, motivation, and independence of agriculture instructors variable influences significantly the competency of agriculture instructor with the coefficient determination (R^2) as 74% in significance level $\alpha = 0.05$ (Table 3). It means that the three dependent variables (X) simultaneously influence significantly the competency of agriculture instructors (Y) as 74% and the remaining as 26% have been influenced by another variable which is not included in this research.

D. The Influence of Characteristic, Motivation, and Independence to the Competency of Agriculture Instructors.

Regarding to the previous explanation, the result of this research can be a reference to the Department of Agricultural and local government in making policy related to the independence of the agriculture instructors which necessary to be directed to the dimension of emotional and economic independence, in order to develop the competency of the agriculture instructors to help the learning process of the farmers in doing their agribusiness.

The research result shows that there is a significant influence of agriculture instructors' independence towards the competency of agriculture instructors from intellectual and social independence, which means that the agriculture instructor has been independent or do not need a help of intellectual and social independence. It indicates that the agriculture instructors' intellectual independence is a success of the agriculture instructors in handling the problem of farmers based on capability and knowledge they have. Moreover, in social independence side, the agriculture instructors are able to communicate with the farmers, community leaders, government, and non-governmental organizations, without depending on and waiting for another action in implementing the program of agricultural extension to help developing the productivity of agribusiness.

A research of Merliati (2008) about the empowering of farmers in fulfilling a desire of agriculture farmers' independence capacity development at District of Kampar, Riau Province, concludes that the desire fulfillment level of agribusiness farmers development, the performance of agriculture instructor in empowering the farmers, the characteristic of the farmers (Formal and informal education of farmers) simultaneously influence directly the independence of agribusiness farmers with the coefficient determination as 95 percent significantly in $\alpha = 0.05$.

The result is suitable with the research result of Mardin (2009) of factors influence the independence of fisherman in Wangi-Wangi sub-district of South East Sulawesi, which concludes that the fisherman's experience, the pioneer characteristic of the fisherman, and the competency of the fisherman simultaneously influence the independence of the fisherman with the coefficient determination as 54.5 percent, in $\alpha = 0.05$.

The dimensions of agriculture instructors' independence, which is closely related to the competency of agriculture instructors, are: (1) the intellectual independence, includes the independence in planning the agribusiness, deciding the cultivation area, deciding the production way, making decision of problem-solving of the farmers, deciding the market for marketing of the crop, and (2) social independence, includes the independence of the agriculture instructor in keeping the independency, the relationship between the maize farmers, relationship between a group of farmers except the maize farmers, the relationship with a group of leaders, and the independence of the agriculture instructor in developing strategy of adaptation.

of self-potential and the desire to be affiliated of agriculture instructor will increase the competency of agriculture instructor, while another four dimensions such as recognition of farmers, income, desire for achievement, and desire for power in this research have coefficient estimation of weight factor less than 0.40 insignificantly in $\alpha = 0.05$. It means that the four dimensions are not valid in measuring the competency of the agriculture instructor.

(3) The significant influence of agriculture instructor's independence variable is determined by two dimensions, such as intellectual and social independence (Picture 1). It indicates that the increasing of intellectual and social independence of agriculture instructor will increase the competency of agriculture instructor, while another two dimensions of agriculture instructor's independence such as emotional and economic independence in this research have coefficient estimation of weight factor less than 0.40 insignificantly in $\alpha = 0.05$. It means that the two of agriculture instructor's independence dimensions are not valid in measuring the competency of the agriculture instructor.

The developing of the agriculture instructor's competency can be seen by the increasing of the agriculture instructors in appreciating the cultural diversity and the processing of agricultural extension information. The developing of the competency of agriculture instructor in appreciating the cultural diversity includes the increasing of the agricultural extension's material that is suitable with the local wisdom and the increasing of the agricultural extension's media that is suitable with the local wisdom. The increasing of processing information of agricultural extension includes the increasing of agricultural extension's media, the use of computer to search for and to deliver the information, and the use of learning method in each extension.

The influence of agriculture instructor's characteristic, motivation, and independence variable has the coefficient determination (R^2) as 74%, which means that the influence of external variables as 26% is quite low to develop the competency of agriculture instructor. Thus, characteristic, motivation, and independence of agriculture instructor are internal factors that dominant in developing the competency of agriculture instructor to help the farmers in increasing the agribusiness productivity which affect the increasing of farmers' income and prosperity.

E. The relationship between Variables which Influence the Competency of Agriculture Instructor

The result of research shows that there is a relationship between agriculture instructor's characteristic and motivation variable and between agriculture instructor's motivation and independence variable significantly in $\alpha = 0.05$ (Table 6). It can be explained that the significant relationship between characteristic and motivation variable of agriculture instructor is categorized as high with the coefficient relation as 0.50 units. It means that if there is a change on agriculture instructor's characteristic in age, working period, and number of assisted farmers' dimension, it will increase the development of self-potency and the desire for affiliation.

The relationship between characteristic and independence variable of agriculture instructor is categorized as low with the coefficient relation as 0.11 units. It means that the if there is a change on agriculture instructor's characteristic in age, working period, and number of assisted farmers' dimension, then it will not increase the agriculture instructor's independence in intellectual and social independent. The relationship between motivation and independence variable of agriculture instructor is categorized as low with the coefficient relation as 0.25 units. It means that the if there is a change on agriculture instructor's motivation in self-potency and the desire of affiliation dimension, it will increase the instructor's independence in intellectual and social dimension.

Theoretically, the result of this research is in line with Lusthaus et al., (2002) which stated that the organization performance is influenced by three factors, such the organization's capacity, the organization's motivation, and the organization's environment that related each other. The organization's capacity is an ability of an organization in using the available resources. Organization's motivation showed the basic characteristic of an organization. External environment is a key factor in determining the level of resources availability and activities that can be completed.

Conclusions

Based on the research result and discussion, it can be concluded that:

1. Internal factors that influence the formulating process of competency development model of agriculture instructor are age, working period, number of assisted farmers, self-potential development, a desire of affiliation, and intellectual and social independence.
2. The degree of the relation between characteristic and independence variable of agriculture instructor is categorized as low and does not influence the competency development model of agriculture instructor. The degree of the relation between characteristic and motivation variable of agriculture instructor is categorized as high and influences the competency development model of agriculture instructor. The degree of the relation between motivation and independence variable of agriculture instructor is categorized as low and does not influence the competency development model of agriculture instructor.
- Based on the research result and discussion, it is suggested that:
1. The agriculture instructors should increase the motivation of self-potential development and the desire of affiliation to develop the competency of agriculture instructor in helping the farmers to carry out the agribusiness.
 2. The agriculture instructors should develop the intellectual and social independence in developing the competency of agriculture instructor in helping the farmers to carry out the agribusiness.
 3. It is necessary to follow-up the implementation of competency development model of agriculture instructor in agriculture extension based on the location and crops cultivated by the farmers.
- Acknowledgement
- I would like to express my gratitude to The Ministry of Education and Culture of Indonesia particularly The Directorate of Research and Community Service which supported me financially through BOPTN funding in conducting this research based on the specified mechanism.
- Bibliography**
- Bahua, MI. (2010). Faktor-Faktor yang Mempengaruhi Kinerja Penyuluh Pertanian dan Dampaknya pada Perilaku Petani Jagung di Provinsi Gorontalo. Unpublished Dissertation. Institute Pertanian Bogor. Departemen Pertanian RI. (2004). Pedoman Pengelolaan Balai Penyuluhan Pertanian. Jakarta: Departemen Pertanian.
- Hadji, AP. (2000). Strategi Komunikasi dalam Mengantisipasi Kegagalan Penerapan Teknologi oleh Petani. Artikel Hasil Penelitian. NTB: Fakultas Pertanian Universitas Mataram. <http://suniscome.50webs.com/data/download/025%20Strategi%20Komunikasi.pdf>. Retrieved on 19/9/2013.
- Lashtaus C, Adrien M, Anderson G, Carden FM. (2002). Organizational Assessment: A framework for improving performance. IDRC. <http://www.idrc.ca/en/ev-30266-201-1-do.html>. Retrieved 10/10/2013.
- Mardin. (2009). Faktor-Faktor yang Berpengaruh pada Kemandirian Nelayan Ikan Demersal di Kecamatan Wangi-Wangi Selatan Kabupaten Wakatobi Sulawesi Tenggara. Unpublished Thesis. Institut Pertanian Bogor.
- Muliady, T.R. (2009). Faktor-Faktor yang Berpengaruh pada Kinerja Penyuluh Pertanian dan Dampaknya pada Perilaku Petani Padi di Jawa Barat. Unpublished Dissertation. Institute Pertanian Bogor.
- Samardjo, M., Pang S. Asngari, Tjitoprarnoto, P. & Saefuddin, A. (2008). Faktor-Faktor Penentu Peningkatan Kinerja Penyuluh Pertanian dalam Memberdayakan Petani (Kasus di Kabupaten Kampar Riau). Jurnal Penyuluhan. Volume 1 Nomor 1. September 2008. Hal: 6 – 10.
- Tjitrarnoto, P. (2005). Penyuluhan Pertanian: Masa Kini dan Masa Depan dalam Membentuk Pola Perilaku Manusia Pembangunan. Edited by: Ida Yustina dan Adjat Sudradjat. Bogor: IPB Press.
- Yusuf, AE. (2008). Pengaruh Motivasi terhadap Peningkatan Kinerja. <http://teknologikinerja.wordpress.com/2008/05/06/pengaruh-motivasi-terhadap-peningkatan-kinerja/>. Retrieved on 19/10/2013