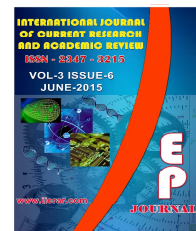




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Agribusiness development increasing the production of potato farmers in Gowa District, Indonesia

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A B S T R A C T

This study aims to analyze Sub System Production and Sub system Marketing activities on agribusiness system to increase farmer income. One of the way to develop agriculture is to apply agribusiness system. The main reason to analyzing two sub system in agribusiness (sub system Production and sub system Marketing) because it has not been studied before. According to Ali Musa (2012), agribusiness is a farm-based business conducted in an integrated from upstream to downstream in accordance with the systems of production inputs and outputs (output). Subsystems in agribusiness consists of (1) the input subsystem, (2) production subsystem, (3) post-harvest subsystem, (4) marketing subsystem and (5) supported services subsystem (Ali Musa, 2012). This research carried out on Potato development centers in South Sulawesi has been located in the highlands (above 1000 m asl). This is due to the high production of potatoes would if grown in environments with low temperatures around 17-20°C and the optimum temperature for tuber formation 18°C). Planting potatoes in the highlands of continually having some problems such as: the farmer have not applied all the component activities in each of those subsystem in Agribusiness correctly, they lag of certified seed and they did not understand in applying a correct dosis of fertilizer. One of the potential commodities to be develop is potatoes crop as a second commodity beside rice in Indonesia. Because it has a large market demand and supported by the potential availability of land to agro-climatic conditions are adequate and can be develop in agribusiness system. The potential land which is suitable for potato is 1.350 hactars and for South Sulawesi is 4.500 hectars and all over Indonesia potential land for potato can reach to 1.331.700 hectars and mostly are located out of Java island.

Introduction

Farming technology greatly affect the increased productivity and quality of potato products. Ranging from the supply of quality seeds, good soil preparation, crop maintenance, harvesting and marketing. Potato farming sub - system (on-farm) can achieve optimum productivity if supported by other subsystems. Both are located on the upstream, downstream and which serves as a facilitator.

Agribusiness development in Indonesia is very important, in connection with the rise and fall of production in which at any given moment of production is very low and at other times be very high because it required a development of a system that is able to reduce the supply and demand of abnormalities throughout the year on commodity potato (Setiadi, 2009).

Farming in Indonesia is generally a system of smallholder agriculture. Only a small proportion managed a large plantation companies. Although the two are inseparable and determine the overall performance of agriculture in Indonesia, but the difference in the scale of business, mastering of technology, management skills, and marketing perspective is sufficient to represent the fact that they are two very different entities (Arifin, 2001).

The potential development of potato farming has a promising future as proposed by Edi Syafril *et al.* (2003) potato is most likely horticultural commodities for development compared to other horticultural commodities.

The magnitude of this opportunity due to the price of potatoes is relatively stable, high business potential. Business segments can be selected according to the capital, and a guaranteed market for sure. Besides potatoes

have a longer shelf life than other vegetables such as onions, cabbage, and beans.

Potato farming development oppor-tunities and prospects is large enough in improving the regional economy and farmer's income mainly highland areas. According Iskhak *et al.* (2001) in the development of agribusiness potato farming technology affects the increase of farmers' income.

According to Said *et al.* (2001) a key factor in the development of agribusiness and the potato is an increase in production capacity expansion through renovation, growers are developing and restructuring agribusiness, institutional and infrastructure to support the improvement and expansion of production capacity realized through business investment and infrastructure investment. Revitalization of Agriculture of fisheries and forestry is the agribusiness development facilitation/support of aspects of the technology on farm and off farm, investment, mechanization of agriculture and the promotion and development tailored to the potential land.

The structure of agribusiness, for almost all commodities, today still discontinuous. In terms of the structure should be integrated with agribusiness is characterized by several things: First, the concept of agribusiness is an integrative and systems consist of several subsystems, namely (a) the upstream agricultural subsystem, (b) subsistence agriculture, (c) processing subsystem agricultural products, (d) agricultural marketing subsystem, and (e) subsystem of agricultural support services. The second subsystem, part of the first subsystem and the third subsystem is an on-farm agribusiness, whereas other subsystems are off - farm agribusiness. Second, agribusiness is a concept that puts agriculture as a whole is a comprehensive activity, as well as a concept to be able to examine and address

issues, challenges, and obstacles facing agricultural development. Agribusiness also be used as a benchmark in assessing the success of agricultural development and the development of more appropriate national development.

There are at least five reasons why agriculture or agribusiness becomes strategic. First, agriculture is the sector that provides the food needs of the community. Second, a provider of raw materials for the industrial sector (agro-industry).

Third, contributing to foreign exchange through the export of commodities. Fourth, provide employment opportunities for rural labor. And fifth, need to be maintained for the balance of the ecosystem (environment) in creating food security and increasing public welfare.

One attempt to improve the welfare of the community is to improve food security. The concept of food security is to increase domestic production, improved food distribution, and improve purchasing power, which is done by comparative and competitive advantage.

To keep the food security continues to increase, then the means used is to increase the productivity of agricultural commodities, especially commodity among other commodities potato horticulture.

Farmer poverty

According Loxin and Ravalion, 2004 : 63) The poverty has two main meaning: Individual poverty and group poverty. It is also called objective poverty and subjective poverty.

Noll (Milligan *et al.* explained 2006;22) poverty objective is a level of poverty for individual and group of society which is

measured base on economic and social or it is measured by other measurement.

Poverty is also explained, that the purpose of developing farmer poverty is through empowering them to akses agriculture bussines and ti develop farmer institution (Nizwar, 2013).

In line with those opinions above, it is necessary to study the activities of identification systems used by farmers, who have access to technology implementation and identification of problems faced by farmers prior to technological innovation and agribusiness system is intact as the next input to be evaluated and analyzed the expected output (increased revenue).

Understanding of the concept of agribusiness by experts include:

1. E. Paul Roy (1967), looking at agribusiness as a process of coordination of the various subsystems. Coordination is a management function to integrate the various subsystems into a system.
2. John Davis and Ray Goldberg (1987), looking at agribusiness as a whole series of productive activity several subsystems. Although not incorporate elements of the business, understanding the view of agribusiness as a system.
3. Downey and Erickson (2000), argues that the scope of activities covering all sectors of agribussines inputs, farming, products supplying farm inputs, engaged in the production, and ultimately handle the processing, distribution, wholesale, and retail sales of products to the final consumer
4. Bungaran Saragih (2008), considered as a paradigm of agribusiness agricultural development.

5. Kenneth D. Duft (2012), agribusiness and farmers regard as fundamental in the sense explanation. Duft include elements of business by sticking to the agribusiness as a system.
6. According to Ali Musa (2012), agribusiness is a farm-based business conducted in an integrated from upstream to downstream in accordance with the systems of production inputs and outputs (output). Subsystem on agribusiness.

Number of researchers have explained about agrbusiness system by using different nomenclature but none of them carried out evaluation on each activitis on agribusiness subsystem, specially on sub system Production and sub system Marketing in oroder to fix those activities which it is suitable to potato farmer under spcific circumtanses of tropical developng countries farmer with smallholders farmer.

On this research is tried to evaluate on Production sub system and Marketing sub system but still connected into all subsystem in a agribusiness system. The result of this research is to fix the activitis on those sub system base on farmer skill and the availablity of production materia mainly, such as certified seed and marketing schame, which is suitable to be applied in the research area and outomatically increase farmer income.

The research was conducted in the central potato production in region of Gowa District, sub-district Tombolo Pao, Erelembang village, South Sulawesi Indonesia. The main reasons to decide the research location because it is one of the largest potato area in South Sulawesi Province. The main actors on this research are; potatoes farmer, distributor input in

village, Collector of potatoes production, the wholesaler, the big potato businessman, Agriculture extention staff, village leader and NGO who are doing potato business. All of those actors called stakeholders in potato business. To do more accurate on this research, the resercher follow some steps which it is recommanded by Guba and Lincoln, (Denzin, 1994) that using deep interview obsevation trianggulation and researches input. The informants to be interviewed in this study are: potato farmer, traders in different form, village leader,local government, such as : (a) Agriculture extentation, potato farmer, (3) Traders included collector, local buyer.

Data collection technique

- a. Before researchers do data collection activities, the first researcher is to approach stakeholders (informants) that exist around the object of research and then conduct an informal discussion about all things related to potato farming informants leading to agribusiness system.
- b. Data collection techniques will be performed in this study as follows:
- c. Researchers selected the welinform farmer in farming potato which it calls informant and this informant will pointed the next informant, it means use snowball method.
- d. Collecting data by surveying methods and using questionnaire list.
- e. Interview by collecting information from informants with snowball technique in depth (in-depth interviews)
- f. The role of observation (participant observation).

The observations made are regular observations and participatory observations, direct by researcher. The data obtained in this way, among other conditions of the settlement, the state of the daily life of the informants, some cultivation technology, assistance or support on the implementation of technology. Participatory observation (full deep observation participation), researchers directly involved in interview the informant data collection and researcher collected data set settings such as; agriculture practises, land lease, land management, sharing, marketing systems and other data deemed necessary.

The process of data analysis refers to access theory by Imam Gunawan, 2014. This study was conducted using a qualitative approach that emphasizes the process of inductive thinking process using scientific logic. This qualitative study does not mean not using quantitative data support, but more emphasis on the depth of the formal thinking of researchers in addressing the problems faced.

This study used a qualitative approach which type is descriptive. Qualitative research is research that aims to gain a deep understanding of human problems and social, not describe the surface of a reality as quantitative research with positivism. Researchers interpret how the subject derive meaning from the surrounding environment, and how it affects their meaning. The study was conducted in the background (setting) natural (naturalistic) is not the result of treatment (treatment) or manipulation of variables involved. (Imam Gunawan, 2014). Qualitative research is descriptive analytic nature. Data obtained as the result of observation, interviews, captured, document analysis, field notes, compiled researcher in the study area, is not written in the form and figures. Researchers immediately perform

data analysis to enrich the information, look for relationships, comparing, finding a pattern on the basis of the original data (not transformed in the form of numbers). The results of data analysis in the form of an examination of the situation under study are presented in the form of a narrative description. (Imam Gunawan, 2014).

The nature of the exposure data are generally answer the question of why and how a phenomenon occurs (Directorate of Education, 2008: 24). For that researchers are required to understand and master the science that being observed, so as to provide justification of the potatoes are in the Village Erelembang, District Tombolo Pao, Gowa. Was chosen as the study site Erelembang village because this village has the largest potato among five Villages and on pre-survey field observations showed the similarity in applying agribusiness system. Gowa chosen as the study site because of Gowa has the largest area planted among other districts in South Sulawesi.

Results and Discussion

The result of the study

Among the informants that have interviewed indicates that in Sub system input, seed sources became a main problem in potato farming. Most of the potato farmers describe that they always have hardly find seed potatoes, in term of certified seed. The reason for not easily finding certified seed because both farmer (small holders and rich farmers) are declining to use their land for seed production. They all fill to be seed grower is not given a better income in farming. Most of the farmer are prefer to have a ready seed potato for production purpose but not for seed production. The main reason of the informant rejecting to be seed grower because they have to follow the

seed production scheme, which it is started from a true seed of Go and multiplying to be G1, G2, G3 and G4 which it is ready for potato production. In addition Go seed produced by University or Government Institute such as government seed station, particular seed grower which it is still have, to supervising by the researcher. Furthermore those seed growers are required to follow seed regulation in producing seed which it is supervising by Seed Certification Agency in each of season. But the main reason, farmer also do not understanding to produce certified seed.

Another reason the farmer reject to be seed grower because it is time consuming for about two years time. It is also mention that as a smallholder farmer and low income, farmer needs to earn money in each season. They do not have enough saving to survive in two years time, while they are processing in producing seed. Over all of the reason that has been discussing with the informant, they lack of understanding on producing certified potato seed.

Besides seed becomes main problem, fertilizer composition and dosis also consider a problem. Over all of potato farmer on research area are having a lack of understanding on fertilizer practises. The potato farmer mostly use high Urea (1.500 kg) and ZA (4.500 kg) plus 5.000 kg compous fertilizer, they are not understanding in applying balance fertilizer. Indonesian Good Agriculture Practises recommended fertilizer are Urea 500 kg plus 300 kg Triple phosphate plus 100 Kalium clorate and 10 ton of organic fertilizer per hactar. High loses caused by pest and lack of certified seed are the main problem that decreased yield. High price of seed have effected high cost production therefore the production area is not develop. The farmer use uncertified seed, as national

data certified seed is only 10 percent available from 120.000 ton/year are needed. (Agricultur data 2011). It has been detected that, there are 266 virus organism vector, seven kind of bacterias and thirty eight varies funggies and sixty eight nemotoda.

On these circumstances. Potato farmer use a sitemic pesticide with high dosis with highly frecwencies application therefore it is risk causedof resistant and resorgency.

Marketing subsystem

In order to determine marketing system, it is shown on the way the informant sale their product to consument. This result indicates that the production amount is related to price. Indonesian farmer are consider as small holder farmers, which it is not well organized in input and produce markets. Education level of farmers is low. All these factors make the price uncertainties.

Sub system marketing

Like other horticulture crops, potatoes trade is with the private sector. However, Government largely facilitates the system by providing physical infrastructure especially wholesale markets or it is call Terminal Agribusinessand Communication, market intelligence, marketpromotion and regulatory measures for smooth business operations. The flowchart of potatoes for domestic marketing and marketing between island is presented through diagram 1.

Some government facilities is not functioned yet, such as Terminal Agribusnrss. The informant farmer has to look for wholeseler by contacted through telephone at the other regency and discussing about the price of potatoes per kilogram. The main problem on this system is price is always decided by the wholeseler. The farmer never have a change

to decide the price of potato. That means that potato farmer do not have bargaining position. The price of potato when this research carried out was Rp 7.000,- from the grower and it rises to Rp 8.000,- to Rp 8.500,- per kilogram at the consumer.

This problem can be overcome when the farmer establishing private agribusiness institution. This institution should have to discuss the price and making decision for amount of production to supply market with eligible price. In establishing agribusiness should be supporting by government with policy.

According to informant the system that is occur now is not balance where the wholesaler always have more power in making price decision and the farmer (grower) always follow the price that is already decided. Furthermore the informant explain that most of price is being overing is lower than what farmer expected. In this case on last season (harvesting on March), the price is Rp 7.000,- per kilogram and price on consumer is Rp 8.500,- to Rp 9.000,- per kilogram. Once agribusiness institution is establish, farmer will get empowering in making price decision.

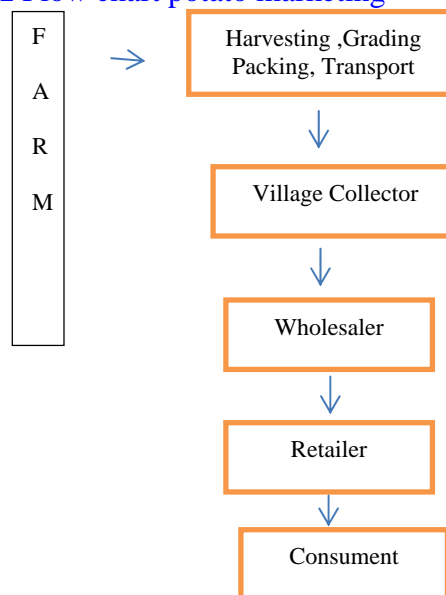
Another marketing case, it is always potato production is sold on credit. It is not case and carry but the payment is always delayed for 2 weeks to one month even more.

Conclusion

Agribusiness system is not an easy farming system being applied in smallholders farmer because informant way of life is living in a very simple way. Furthermore they are still isolated and have minimum infrastructure, low education and hardly access. The communities are rely on natural resources.

On this area research informant do not have farmer institution, they just started to establish farmer groups (two farmer groups) but still not active like farmer who farming in low land area such as paddy farmer. Base on that situation, farmer have not applied good agriculture practises executed perfectly. Once they applied good agriculture practise specially on sub system Production and sub system marketing, they will have high potential to increase their income significantly.

Diagram.1 Flow chart potato marketing



References

- Ali Musa Pasaribu. 2012. *Kewirausahaan Berbasis Agribisnis*. Andi: Yogyakarta.
- Arifin, B. 2001. *Spektrum Kebijakan Pertanian Indonesia*. Erlangga. Jakarta
- Setiadi.2009. *Budi Daya Kentang*. Penebar Swadaya.
- Departemen Pendidikan dan Kebudayaan. 1991. *Kamus Besar Bahasa Indonesia, Edisi Kedua*. Balai Pustaka, Jakarta.
- Downey, W.D. dan Erickson S.P. 2000. *Manajemen Agribisnis*. Edisi kedua. Penerjemah: Ganda, R dan Sirait, A. Erlangga. Jakarta.
- Downey, W. David and Steven P. Erickson. 1987. *Agribusiness Management, Second Edition*. Mc Graw-Hill Book Company, New York.
- Kenneth F.K. dan K.C. Ornelas. 2012. *World History of Food*. Cambridge University Press