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The Study on Farmers' Welfare



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Abstract

The agricultural targets in Indonesia, particularly in Bali, cover farmers' welfare improvement, which is aimed to protect farmers from poverty. Some factors that may lead farmers into poverty namely: (1) The low level of technology applied; (2) The small scale of business; (3) The inefficiency of marketing system; and (4) The status of farmers who are mostly peasants. The first two factors result in a small harvest, the third factor causes farmers for receiving low prices, moreover, the fourth factor put the farmers can not make a decision but merely receiving wages. This study aims to investigate the welfare level of farmers in Denpasar based on the grade of Farmer's Term of Trade Indices, which is analyzed according to three criteria, namely farmers who own their own lands, farmers who are both peasants and owning their own lands, and farmers who are merely peasants; to investigate farmers' families efforts; to investigate the scale of business and the farm ownership status of farmers in Denpasar. The results of the study showed that the Farmer's Term of Trade Indices in Denpasar is evenly 104.40%, which was included farmers who own their own lands, farmers who are both peasants and owning their own lands and farmers who are mere peasants. Since the Farmer's Term of Trade Indices in Denpasar was found to be higher than 100.00%, it indicated that farmers in Denpasar have been able to cover their expenses through their revenues, even the revenues might be higher than the expenses. The efforts of the farmers' family members who were productive, especially the housewives, varied among sub-district and hit 86 people or 39.09%. The scale of business of farmers' in Denpasar was evenly 47.27 acre, which consisted of 27.53 acres from farmers who own their own lands, 55.14 acres from farmers who are both peasants and owning their own lands, and 59.13 acres from farmers who are mere peasants. The status of farm ownership was discovered to be an assurance for most of the farmers in doing their farm since it has been approved by 82.50% of farmers who agreed with the statement, even though 15.75% of farmers stated being indifferent, while 1.75% did not agree.

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1. Introduction

Agricultural sector as one of the supporting sectors for Indonesian economy is a relatively more resilient and flexible sector to economic crisis compared to other sectors since the sector tends to rely on the utilization of domestic resources rather than imported components.

In an economic crisis of the 2000s, the agricultural sector played a very important role for Indonesia's national development, such as the provision of basic food needs, the foreign exchange gain through exports, and became a feasible field for labors, especially in rural areas. Aside from the success and strategic role of the agricultural sector, the current and future challenges for the sector are considered to be tougher. Therefore, the direction of policy should have been more emphasizing to the populist economy, which could involve the farmers directly.

The life goal of farmers' family is to be fulfilled in term of welfare, obtaining fairness as long as feasible treatments as Indonesian, and experiencing equality in the form of rights and duties.

The real condition of farmers in Denpasar in reaching welfare is being constrained in term of decision making. In this condition, the farmers should allocate their farming resources, which are known well as production factors of farming. The harvest is usually used as food supplies for the farmers' families, or it could be sold to earn money for farming capital and meeting their daily needs. Therefore, the agricultural sector is one of integral parts of the national development system which is getting more important and strategic [7].

The condition of land resources which is very marginal and neglected in urban areas is one of the primary factors that indicate labor transformation from the agricultural sector. According to the Head of Indonesia's Central Bureau of Statistics [3], the condition implicated generally to the decrease of farmers' welfare, particularly for farmers of food crops.

The decrease of the agricultural land areas leads to the decline of agricultural products, which synergistically affects the farmers' income. The condition brings the farmers to decide whether they are merely relying on the farming activities as the main source of income or should have had another side job. The moment they choose to do some side jobs is causing labor transformation from the agricultural sector to nonagricultural sector.

Some factors that may lead farmers into poverty namely: (1) The low level of technology applied; (2) The small scale of business; (3) The inefficiency of marketing system; and (4) The status of farmers who are mostly peasants. The first two factors result in a small harvest, the third factor causes farmers for receiving low prices, moreover, the fourth factor put the farmers can not make a decision but merely receiving wages [11].

During these times, the attempts in measuring the level of farmers' welfare are still using indicator of changes in farmers' income. According to [1], the indicator was inappropriate and misleading to accurately depict the farmers' welfare improvement, since it has not compared to the expenditure of the farmers in term of consumption needs. A similar statement also stated by [4] that the decline of Farmer's Term of

Trade Indices or the decrease in the price level of agricultural products relative to prices of other goods and services may lead to a decline in real income of the farmers.

Therefore, Farmer's Term of Trade Indices that considers both of revenues and expenditures of the farmers' families is seen to be more accurate to measure the welfare level. Besides, the level of farmers' welfare could also be investigated through the efforts of their family members, who actively contribute in the agriculture sector, the scale of business carried by the farmers, and the ownership status of the farmlands [10]. Data of the study were collected through distributing structured questionnaires and direct field observation, in order to gain output related to the availability of agricultural development planning data in Denpasar.

Problem of the Study

Based on the background of the study, the researchers formulate the problems of the study as for how is the Farmer's Term of Trade Indices, the efforts of the farmers' families, the business scale of the farmers in Denpasar, and the ownership status of the farmers' farmlands in Denpasar?

Purpose and Objective of the Study

The purpose of the study is to investigate the level of farmers' welfare in 2016 in Denpasar, in order to meet the agricultural revitalization program plan of Denpasar Municipality. On the other hand, the objective of the study is to facilitate and provide output that relating to farmers' welfare as data on agricultural development planning in Denpasar, which are namely: (a) collecting the field data required in Farmer's Term of Trade Indices calculation; (b) interpreting the calculation results of Farmer's Term of Trade Indices; (c) analyzing the job classification of the farmers; (d) analyzing the scale of business; and (e) investigating the ownership status of farmlands.

Targets of the Study

The targets of the study are formulated as follows:

- a) The collection of field data required in Farmer's Term of Trade Indices calculation;
- b) The interpretation of the calculation results of Farmer's Term of Trade Indices;
- c) The analyses of the efforts of the farmers' families along with the farmers' business scale;
- d) Identification of the ownership status of farmlands.

Benefit of the Study

The study is expected to be beneficial for:

- a) The government of Denpasar Municipality: as information related to the level of farmers' welfare through Farmer's Term of Trade Indices, which further could be used as policy-making materials that are more directed and focused on maintenance and improvement of the economic prosperity level of farmers, along with priority setting for farmers empowerment.
- b) Entrepreneur: as useful initial information to play an active role in investing in the agricultural sector and to determine the most profitable investment location.
- c) NGOs/society: as data for the formulation of criticism and suggestions on central and local government policies in the agricultural sector; as information to participate in farmers empowerment activities; and as data for farmers to advocate locally, regionally, and nationally.
- d) Farmers: providing chances to take apart directly on economic empowerment activities, and increasing farmers' awareness to improve their own economic welfare.

2. Research Method

2.1 Location

In determining sample, the researchers used stratification random sampling at 5%, which was based on some criteria, namely: (1) all of the sample farmers should live in Denpasar, in which the measurement of Farmer's Term of Trade Indices was conducted. This is important since the farmers would be more accessible, therefore the primary data collection would be convenient and continuous; (2) the sample farmers should have married [5]

Based on the data from [2], the number of farmers for each sub-district is presented as follows: In South Denpasar Sub-district there were 407 farmers who owned their own lands, 606 farmers who were both peasants and owning their own lands, and there was not any farmer who was merely a peasant, in West Denpasar Sub-district there were 138 farmers who owned their own lands, 266 farmers who were both peasants and owning their own lands, and there was not any farmer who was merely a peasant, in North Denpasar Sub-district there were 836 farmers who owned their own lands, 973 farmers who were both peasants and owning their own lands, and 322 farmers who were merely peasants, and in East Denpasar Sub-district there were 673 farmers who owned their own lands, 1.125 farmers who were both peasants and owning their own lands, and 867 farmers who were merely peasants.

The researchers collected 5% of proportional samples from the total population in each sub-district [9], which was presented as follows:

- a) In North Denpasar Sub-district, the numbers of samples selected from farmers who owned their own lands were 42 farmers (*reality 10 farmers*), the numbers of samples selected from farmers who were both peasants and owning their own lands were 49 farmers (*reality 8 farmers*), and the numbers of samples selected from farmers who were merely peasants were 16 farmers (*reality 25 farmers*).
- b) In East Denpasar Sub-district, the numbers of samples selected from farmers who owned their own lands were 34 farmers (*reality 24 farmers*), the numbers of samples selected from farmers who were both peasants and owning their own lands were 56 farmers (*reality 8 farmers*), and the numbers of samples selected from farmers who were merely peasants were 43 farmers (*reality 55 farmers*).
- c) In West Denpasar Sub-district, the numbers of samples selected from farmers who owned their own lands were 7 farmers (*reality 17 farmers*), the numbers of samples selected from farmers who were both peasants and owning their own lands were 13 farmers (*reality 12 farmers*), and there was not any sample selected from farmers who were merely peasants (*reality 8 farmers*).
- d) In South Denpasar Sub-district, the numbers of samples selected from farmers who owned their own lands were 20 farmers (*reality 10 farmers*), the numbers of samples selected from farmers who were both peasants and owning their own lands were 13 farmers (*reality 15 farmers*), and there was not any sample selected from farmers who were merely peasants (*reality 28 farmers*).

Therefore, the total numbers of each sample is presented as follows: the total samples for farmers who owned their own lands was 103 farmers (*reality 61 farmers*), the total samples for farmers who were both peasants and owning their own lands was 131 (*reality 43 farmers*), and the total samples for farmers who were merely peasants was 59 farmers (*reality 116 farmers*).

On the other hand, the total of farmers which were selected for Denpasar was 293 farmers (*reality 220 farmers*). Bias occurred up to 73 farmers since there was a change in population distribution due to land conversion and the transfer of land ownership through selling.

2.2 Data Collection Method

The research used two kinds of data, namely primary and secondary data. The secondary data included the potency of agricultural resources in Denpasar, the agricultural enterprise's centers, the development of facilities and infrastructure used, the price of agricultural production, the number of farmers' household in Denpasar which was gained through library research at the Central Bureau of Statistics and Department of Agriculture.

Meanwhile, the primary data were collected through direct interview with sample farmers by using structured questionnaire. Based on the classification of sample farmers, the questionnaire was divided into 3 kinds, namely: (1) Farmers who owned their own lands used Questionnaire 1; (2) Farmers who were both peasants and owning their own lands used Questionnaire 2; and (3) Farmers who were merely peasants used Questionnaire 3. The three Questionnaires consisted of 3 parts, namely: (a) General Data; (b) Revenue Data; (c) Expenditure Data. The structure of the questionnaires has been arranged to be similar to the data structure of software that used to enter data and calculates the Farmer's Term of Trade Indices. The primary data collection was conducted by surveyors who have obtained training on surveys related to this research.

2.3 Analyses Method/Farmer's Term of Trade Indices Caculating Procedure

In analyzing the data, the researchers used some analyses devices in term of software and hardware. Farmer's Term of Trade Indices Software was formulated specifically by our experts by using Excell Window 2010 Program that consisted of 3 files based on the classification of the farmers, namely farmers who used Questionnaire 1, Questionnaire 2, and Questionnaire 3. Each of Questionnaires covered 4 subdistricts, namely: North Denpasar Sub-district, East Denpasar Sub-district, South Denpasar Sub-district, and West Denpasar Sub-district.

2.4 Exchange Rate Concept

Exchange rate concept which was used in this research was Farmer's Term of Trade Indices Concept that basically was an indicator to measure the level of farmers' welfare relatively. Therefore, the indicator was a size of ability for the farmers' families to meet their subsistence needs. Farmer's Term of Trade Indices is also known as Subsistence Terms of Trade. According to [1], Farmer's Term of Trade Indices was the ratio of total revenues to total farmers' household expenditures over a period of the time. In this case, revenues in question are the gross income of the farmers.

Farmer's Term of Trade Indices could be formulated as follows:

 $\begin{aligned} \textbf{NTP} &= Y_t / E_t \\ \textbf{Y}_t &= Y_{Ft} + Y_{NFt} \\ \textbf{E}_t &= E_{Ft} + E_{Kt} \end{aligned}$

Notations:

Y_{Ft} = Total farmers' revenues from agriculture (Rp)

 Y_{NFt} = Total farmers' revenues from non-agriculture (Rp)

 E_{Ft} = Total farmers' expenditures for agriculture (Rp)

 E_{Kt} = Total farmers' expenditures for family consumption (Rp)

t = Time period (month, year, etc.)

3. Results and Analysis

3.1 Respondent Characteristics

The selected respondents that were used as a sample in this research were categorized by age, sex, religion, formal education level, main and sideline occupation, the area owned and cultivated for agribusiness either wet area or dry area, and family number per district which is then summed up to the entire Denpasar.

a) Age, Sex, and Religion of The Respondent

The results of this research showed that out of 61 selected farmers (questionnaire 1), it was found that 48 of them or 88.69% belong to productive age which was around 15 to 64 years old, and 13 of them or 21.31% were older than 64 years old, and no respondent is aged under 15 years old. The farmers' average age was 54.41 years old ranging between 32 to 88 years old. There were 58 male farmers or 95.08% and 3 female farmers or 4.92%, and all of the respondents were Hindu.

Meanwhile, the distribution of farmers who were both peasants and owning their own lands (questionnaire 2) was arranged based on age, sex, and religion. There were 43 farmers that have been chosen as sample and it was found that 30 of them or 69.77% belong to productive age group which was around 15 to 64 years old, and the rest 13 farmers or 30.23% were 64 years old or more; furthermore, there was no farmer who was both peasant and owning his own lands aged under 15 years old. The average age of these farmers was between 40 to 80 years old. There were 40 male farmers or 93.02% and 3 female farmers or 6.98%; furthermore, all respondents were Hindu.

The distribution of farmers who were merely peasants (questionnaire 3) was categorized based on age, sex and religion and that from 116 farmers who were merely peasants chosen as sample, it was found that there were 82 of them or 70.69% belong to productive age group which was between 15 to 64 years old and the rest 34 farmer or 29.31% were 64 years old or more and there were no farmers found to belong to age group of 15 years old or less. The average age of the farmers who were merely peasants was 55.19 years old with age ranging between 27 to 81 years old. There were 112 male

farmers or 96.55% and 4 female farmers or 3.45%. Two of the farmers or 0.86% were Moslem and Christian while the rest was Hindu.

b) Education Level of the Respondent

According to the data obtained from questionnaires spread to 220 selected respondents, in that the respondent characteristics were based on formal education level, the formal education level of the most farmers-land owner or around 30 respondents or 49.18% from the entire sample was Elementary School. Therefore, their education level was quite low and yet they generally are able to read well. The selected farmers who have never taken a formal education were at least around 5 people or 8.20%. The average education level in Denpasar is 7.9 years or equal to the first grader of Junior High School, which means that the education level of the farmers-land owner was relatively low.

The formal education level of most farmers who were peasants and own a land was an Elementary school which was around 29 respondents or 67.44% of the whole sample. Therefore, the education level of most farmers who were peasants and own a land was relatively low and yet they were generally able to read well, even though around 5 respondents (11.63%) have never taken a formal education. Furthermore, none of this sample category has taken a formal education up to University level.

The formal education level of most farmers who were merely peasants was Elementary School which was around 59 respondents or 50.86% of the whole sample. Therefore, the education level of most respondents who were merely peasants is relatively low and yet they were able to read well, and there were 18 people or 15.52% who have never taken a formal education. The sum of selected farmers who were peasants, own a land and have reached University level was the least which was 2 people or 1.72%.

The selected respondent's education level showed variations which were mostly found on an Elementary level. They were around 118 people out of 220 total sample or 53.64%. This showed that most respondents were relative low educated and yet were able to read and write in order to support and influence their agribusiness and to absorb new technology, as literacy ability would help farmers to learn about the rapid science improvement. [8] proposed that education and training were important factors in developing human resources, as education and training could improve their knowledge and employability which contribute to work productivity.

c) Occupation of the Respondent

Based on its time usage priority, the occupation can be classified into two which were main and sideline occupations. Main occupation or primary occupation was an occupation which requires more time, while sideline occupation was an occupation that could be done during our spare time.

Most respondents' occupation was farmers which were around 190 people or 86.36% of the entire sample, while respondents working as a civil servant and carpenter were the least found that were 2 people or 0.91% of the whole sample. Other main occupations of the respondents were private employees, coolies, and seller.

Not all respondents have a sideline occupation, this is indicated from 220 respondents, and there were 154 people or 70.00% of the whole sample who did not have a sideline occupation as they were focused on the main occupation. Respondents who have sideline occupations were around 25 people or 11.36% of the entire sample, while the other sideline occupations are breeders, seller, coolies, private employees, etc.

3.2 General Data

The general data of this research include the farmers' family data, the farmers' household, the farmers' income pattern and the farmers' agribusiness structure which relayed on the following discussion.

a) Family Members of the Farmers

Based on the research results taken from 220 people, it was found that the farmers' family members are 1,121 people in total which consist of 555 men or 49.51% and 566 women or 50.49% of the whole respondents' family.

Therefore, the average respondent's families were two persons, in which according to [6], that belongs to working age group which was 15 to 64 years old age group and the rest was age group less than 15 years old or more than 64 years old.

b) Total Family Members of the Farmers in Accord with Age

The total of respondent's family members which belong to working age group (the age group between 15 to 64 years old) was 807 people or 71.99% of the whole respondents' family members and the rest was 314 people or 28.01% of the whole respondents' family members. The total of the citizens aged around 25 to 39 years old was the highest number which is 256 people or 22.84% and the total of the citizens aged 64 years old or more is the lowest number which is 109 people or 9.72% of the selected respondents' whole family members.

c) Total Family Members of the Farmers in Accord with Education

The total respondents' family members who have not taken a formal education yet was 109 people or 9.72%, the total of family members who have studied in Elementary School was 347 people or 30.95%, the total of family members who have studied in Junior High School was 177 people or 15.79%, the total of family members who have studied in Senior High School is 313 people or 27.92%, the total of family members who have studied in an Academy/ Diploma was 47 people or 3.30%, and the total of family members who have obtained Bachelor degree was 42 people or 3.75% of the entire respondents' family members.

d) The Role of Family Members in Agribusiness

The role of family members in agribusiness of Denpasar is illustrated in Table 4.12. Where in table 4.12 it could be seen that wives mostly help their husbands who work as farmers which were around 82 people or 37.27% and the least active role was the husbands or 4 people or 1.82%. Meanwhile, the total of inactive family members in contributing to agribusiness was 79 people or 35.91%.

The role of family members in agribusiness or the work efforts from the farmers' family in agribusiness was 141 respondents or 64.09%, where the highest efforts of respondents' wives was 82 people or 37.27% and the efforts from other family members which were 59 people 26.82% comes from husbands, children, children in law and others such as father, mother, younger and older siblings. Meanwhile, the total of inactive family members in agribusiness due to working in other sectors was 79 people or 35.91%.

3.3 Income Structure of the Farmers

The source of farmers' income was generally classified into two which were generated from the main occupation as farmers and other sideline occupations, or generated from farmers as sideline occupation as they have another occupation as the main occupation. Out of 220 respondents, there were 195 of them or 88.64% whose main income comes from agriculture and only 25 people or 11.36% considered agricultural occupation as a sideline occupation. Around 77 respondents or 35.00% who admitted that they have other income besides agriculture. From those 77 respondents who admitted that the contribution was leaning to agricultural sector was 38 people or 49.35% and the others who admitted that bigger contribution comes from other sectors were around 39 people or 50.65%.

3.4 Agriculture Business Structure

a) The Business Form and the Cultivated Land Area

The business form will determine agriculture business which was run by the respondent, in this case, the business form was categorized into an individual of the family business in cultivating the land well either their own land or cultivating others' land. The land was a very important facility in agriculture business which later will be able to indicate how big the business scale was done by the related respondent so that the land area cultivated by the farmer was necessary to be measured in order to provide an overview of the farmer's widespread. The average land area cultivated by the respondents is 50.04 acre which consists of their own land only around 12.09 acre and cultivating others' land around 37.95 acres. Generally, the business form is an individual one, with peasants

condition is profit sharing 1:2 or 1:3 or 1:1 and mostly implements the profit sharing 1:2 which means 1 part for the landowner and 2 parts for the peasants.

b) Harvesting

Harvesting done by farmers as a respondent in all districts of Denpasar mostly executed selectively and based on the accord harvest time was around 211 people or 95.91% of all respondents, and 7 people or 3.18% of all respondents explained the harvest background to fulfill the household demand and only 2 respondents or 0.91% admitted that harvesting was done to meet the market needs.

c) Where to Sell the Harvest Results

Variation of selling the farmer's harvest result as a respondent to some customers was quite interesting, as it was found that there is 7 variations of selling the harvest result. Where the total of respondents who choose to sell it to collectors variation, with their own initiative, in agriculture business place and cash payment system was 46 respondents or 20.91%. The least chosen variation by the respondents was selling directly to consumer variation; they were around 9 people or 4.09%.

d) Current Production and Income Comparing to the Previous One

Agribusiness structure analyzed based on current production compared to the previous one, and current income compared to the previous income it could be analyzed that respondents who admitted that current production condition was less than previous one and the income was also less than the previous were around 113 people or 51.36% and the respondents who admitted that the current production condition was less than the previous one while the income was more than the previous are only 2 respondents or 0.91%.

e) Certainty Status of Cultivated Land Ownership

Certainty status of cultivated land ownership in agribusiness will affect the farmer's motive to be more focused on his/ her agriculture business, ironically the cultivated land by the years have gone through functional shift from agriculture sector to non-agriculture sectors so that the farmer's cultivated land is detracted and the ownership status was slowly changed from the farmers-land owner to be peasants which will affect the farmer's welfare himself. Most farmers as respondent declared that the certainty of land ownership would do affect their motives in agriculture businesses are 178 people or 80.91%, and 40 respondents or 18.18% declared it was alright and only 2 respondents or 0.91% declared it does not have any effect.

3.5 NTP and INTP

In Table 1 it could be seen that NTP for all farmers in May to June 2016 period (during the research occurred) either it was the total of family acceptance or acceptance in agribusiness was **more than one**. This showed that farmers in Denpasar have been able to fulfill their daily needs, even has potential to do investments. Or in other words, the total acceptance obtained in that month was more than spending total to fulfill consumer needs and the agribusiness.

Table 1
Mean of NTP (Farmer Exchange Value) in Denpasar, Period May – June 2016

	Farmer			
Remarks	Owner	Owner + Peasant	Peasant	
1. North of Denpasar:			_	
a. Total Acceptance (IDR)	32,480,500	42,887,385	114,256,667	
b. Total Spending (IDR)	31,103,000	40,660,200	110,834,167	
c. Number of Responden (person)	10	8	25	
Exchange Value (%)	104.43	105.48	103.09	
2. East of Denpasar:				
a. Total Acceptance (IDR)	116,908,500	47,740,000	281,716,500	

b. Total Spending (IDR)	111,777,000	45,116,200	273,173,767	
c. Number of Respondent (person)	24	8	55	
Exchange Value (%)	104.59	105.82	103.13	
3. South of Denpasar:				
a. Total Acceptance (IDR)	51,591,000	89,284,163	140,208,500	
b. Total Spending (IDR)	49,344,000	84,713,955	135,851,700	
c. Number of Respondent (person)	10	15	28	
Exchange Value (%)	104.55	105.39	103.21	
4. West of Denpasar:				
a. Total Acceptance (IDR)	94,532,000	62,538,500	44,310,000	
b. Total Spending (IDR)	90,551,000	59,297,700	42,905,200	
c. Number of Respondent (person)	17	12	8	
Exchange Value (%)	104.40	105.47	103.27	
Total Exchange Value	417.97	422.16	412.70	
Mean of Exchange Value (%)	104,49	105,54	103,18	

According to Table 3.1, it could be seen that Farmer Exchange Value (NTP) highest mean was found on farmers who are peasants and own a land to all districts in Denpasar with NTP value is 105.54%, NTP for farmers' landowner was 104.49% and average NTP for peasants was 103.18%. This means that farmers from all categories in Denpasar (Farmer-Land Owner, Owner and Peasant, and Peasant) in agribusiness were able to overcome the expenses spent on the acceptance obtained.

4. Conclusion

Based on the research result and discussion that has been analyzed before, we could conclude that:

- a) Farmer Exchange Value (NTP) Mean in Denpasar is 104.4.0% which originated from the farmerland owner, a farmer who was a peasant and own a land, and peasant.
- b) Farmer Exchange Value (NTP) Mean on the farmer-land owner in Denpasar was 104.49% which was originated from four districts such as North Denpasar's NTP was 104.43%, East Denpasar's NTP was 104.55% and South Denpasar was 104.55%, and West Denpasar's NTP is 104.40%.
- c) Farmer Exchange Value (NTP) Mean on farmers who were peasants and own a land in Denpasar was 105.54% which came from four districts which were: North Denpasar's NTP was 105.48%, East Denpasar's NTP is 105.82%, South Denpasar's NTP was 105.39%, and West Denpasar's NTP was 105.47%.
- d) Farmer Exchange Value (NTP) Mean on peasants in Denpasar was 103.18% which came from four districts which were: North Denpasar's NTP was 103.09%, East Denpasar's NTP was 103.13%, South Denpasar's NTP was 103.21%, and West Denpasar's NTP was 103.27%.
- e) The value of Farmer Exchange Value (NTP) in Denpasar, either the farmer-land owner, farmers who were peasants and own a land, and peasant was more than 100.00% which meant that farmers in Denpasar had been able to overcome the spending from the acceptance, and even the acceptance was bigger than spending.
- f) The Work Efforts of the farmers' family members who actively participate was varied among each district, where the highest numbers came from the wives which were around 82 people or 37.27%.
- g) The average business scale for the farmer-land owner is 27.08 acre, while farmers who were peasants and own a land was 55.14 acre, and peasants were 60.22 acres. Therefore, the respondent farmers' average business scale was 47.18 acre.
- h) Land ownership status was a certainty for the farmers to focus on working on their agribusiness, this was admitted by 178 respondents or 80.91% who said yes they were able to be more focused, around 40 people or 18.18% declared it was alright and only 2 people or 0.91% who disagree.

Suggestion

a) The local government or the Agriculture Department of Food Crops and Horticulture in Denpasar who has supervised the farmers well in order to maintain or even improve so that the obtained NTP

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- currently which is higher than 100% to be maintained and improved for the sake of farmers' welfare
- b) For Businessman/ Private to intensify their roles in executing new investments or investment expansion in agriculture sector so that NTP in Denpasar can be improved.
- c) To all farmers to be more creative in their efforts of agribusiness mainly in promoting their agriculture products by inflicting additional value on their products so that the products will be better.
- d) Periodic research needs to be done in a certain period of time in order to define the farmer's condition development in Denpasar.

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References

- 1. Windupranata, W. (2007). Development of a decision support system for suitability assessment of mariculture site selection(Doctoral dissertation, Universitätsbibliothek Kiel). View in (Google Scholar)
- 2. Salim, H., Karyana, I. P. G., Sanjaya-Putra, I. G. N., Budiarsa, S., & Soenarto, Y. (2014). Risk factors of rotavirus diarrhea in hospitalized children in Sanglah Hospital, Denpasar: a prospective cohort study. *BMC gastroenterology*, *14*(1), 54.

 View in (Google Scholar)
- 3. Mappatoba, M., & Birner, R. (2004). *Co-management of protected areas: the case of community agreements on conservation in the Lore Lindu National Park, Central Sulawesi, Indonesia*. Cuvillier Verlag. View in (Google Scholar)
- 4. Hutabarat. (1996). Socio-Economic Research to Support Community Empowerment Program of Farmers, Research Center for Product Processing and Socio-Economic of Agriculture, Jakarta. View in (Google Scholar)
- 5. Juwita, A., Sayekti, W. D., & Indriani, Y. (2015). Sikap dan pola pembelian bumbu instan kemasan oleh konsumen rumah tangga di Bandar Lampung. *Jurnal Ilmu-Ilmu Agribisnis*, *3*(3). View in (Google Scholar)
- 6. Martono & Saidiharjo. (1981). Geography and Population, Tiga Serangkai, Solo. View in (Google Scholar)
- 7. Von Braun, J. (2007). *The world food situtation: new driving forces and required actions*. Intl Food Policy Res Inst.

 View in (Google Scholar)
- 8. Simanjuntak, P. (1985). Introduction to Human Resource Economics. *Jakarta: Publisher of FE UI (Economic Faculty of Indonesia University)*. View in (Google Scholar)
- 9. Fowler Jr, F. J. (2013). *Survey research methods*. Sage publications. View in (Google Scholar)
- 10.Wu, X. (1985). Terms Of Trade Between Agriculture And Industry--Thirty Years Experience In China (No. 11162). Michigan State University, Department of Agricultural, Food, and Resource Economics. View in (Google Scholar)
- 11. Forster, P. (2009). The political economy of avian influenza in Indonesia. View in (Google Scholar)
- 12. Suryani, S. A. M. P., & Arya, I. W. (2017). Improving the Quality of Tilapia (Oreochromis niloticus) With consumption measures Leaf Extract Neem (Azadirachta indica A. Juss) as Antiparasitic. *International Journal of Life Sciences (IJLS)*, 1(3), 28-37. View in (Google Scholar)
- 13. Mustika, I. W., & Harini, G. A. (2017). Increasing Education of Family Support for Decreasing Depression Level towards Elderly. *International Journal of Health Sciences (IJHS)*, 1(3), 10-16. View in (Google Scholar)

14. Chilán, J. C. H., Torres, S. G. P., Machuca, B. I. F., Cordova, A. J. T., Pérez, C. A. M., & Gámez, M. R. (2018). Social Impact of Renewable Energy Sources in the Province of Loja. *International Journal of Physical Sciences and Engineering (IJPSE)*, 2(1), 13-25.

View in (Google Scholar)

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