

Differential Test of Laying Breeders' Income with the Provision of Banking Loans in Langkat Regency

Akhmad Fauzan¹, Satia², Iskandarini³

¹(Universitas Sumatera Utara, Indonesia)

²(Universitas Sumatera Utara, Indonesia)

³(Universitas Sumatera Utara, Indonesia)

Corresponding Author: Akhmad Fauzan

Abstract: *This study aims to examine the differences in income of laying hen farmers with the provision of bank loans in Langkat Regency, the data used are primary data with 40 respondents and secondary data. Data collection techniques are carried out by means of interviews, observations, questionnaires, literature studies, laws and regulations, and reports from agencies and related agencies. The results of this study indicate that the provision of credit to laying chicken breeding business has a positive and significant effect on the income of laying chicken farmers in Langkat District, North Sumatra. Giving credit to laying chicken farms in Langkat Regency, North Sumatra has a positive and significant effect on increasing eggs production.*

Keywords: production, eggs, credit, income

Date of Submission: 20-01-2019

Date of acceptance:04-02-2019

I. Introduction

Today the domestic demand for eggs continues to increase in line with the increasing pattern of human life in increasing the need for animal protein derived from eggs. In addition there are also government programs to improve community nutrition, especially children. The increasing need for eggs is not matched by large egg production so there is a shortage of egg supplies which results in expensive egg prices. By looking at these conditions, cultivation of laying hens needs to be developed so they can meet the demand for eggs and can stabilize the price of eggs in the market.

The level of consumption of race chicken eggs in North Sumatra in 2011 to 2015 also increased with an average consumption of 1.79 kg / capita / year. However, this condition is still far from the standard of normal nutritional needs, namely 4 kg of milk, 6 kg of meat or 4 kg of eggs.

The effort to develop laying hens in Indonesia has good prospects, especially when viewed from aspects of people's nutritional needs. According to national standards, protein consumption per day per capita is set at 55 grams consisting of 80% vegetable protein and 20% animal protein. Fulfillment of this nutrient, especially animal protein can be obtained from egg protein.

The main problem in chicken farming by smallholder farms is a relatively small scale, so that decent income is difficult to achieve. On the other hand, most farmers are very vulnerable to volatility in price changes. When output prices drop, production input costs do not automatically decrease, resulting in low or even loss of farmer income (Ministry of Agriculture, 2010).

The main obstacles of feed factors are price, supply and uneven distribution, which causes farmers to experience uncertainty in receiving profits. Other risks faced in chicken farming are the risk of production caused by weather and climate and diseases and social risks.

Banks in our economic development are intermediaries for various interests, as intermediaries, banks will receive the demand deposit and time deposit they use to provide loans to consumers, companies and so on. As a result of the lending activity, the bank has actually created the function of creating money. Regarding banking functions, it can be seen from the provisions of Article 3 of the Banking Law which states that "the main function of Indonesian banking is to collect and channel public funds". If we have excess funds, the funds can be saved or deposited in the bank to then loan the bank to the debtors. So banks receive savings and deposits from the public, then channel them back to debtors who need them.

According to Hasibuan (2007) National banking, in theory has enormous potential as a source of financing for the agricultural sector. This institution has a core business of raising funds from the community and channeling it to business actors in the form of credit. However, the facts show that in general there is a tendency for national banks to be less enthusiastic about lending to the agricultural sector. During 2002-2006, the share of banking credit for the agricultural sector averaged only 5.72%.

II. Method

How to take samples using Slovin Method. From 67 laying hens breeders in Langkat Regency, obtained the number of samples for broiler breeders who get credit loans to be studied is 40 with an error rate that is (e) = 0.1.

This research was conducted to test the difference in income before crediting and after crediting by using the Average Difference test analysis method with the Paired T-test method. To find out the difference in the amount of production and income of laying hen breeders before and after the provision of bank credit in Langkat Regency was analyzed by using the t-test statistical test (Different test for Paired sample t-test) with SPSS.

With criteria:

If the significant value is > 0.05; then Ho is accepted

If the value is significant < 0.05; then H1 is accepted

The hypothesis used is as follows:

Ho: there is no difference in the amount of production and income of laying chicken farmers before and after providing bank credit in Langkat Regency.

H1: there are different production numbers and income of laying hens before and after providing bank credit in Langkat Regency.

For testing manually by using the formula:

$$t_h = \frac{x_1 - x_2}{s_x - x}$$

Keterangan :

- th = value of t count
- X1 = group average 1
- X2 = group average 2
- Sx - x = the standard error of the two groups
- Reject H0 if t count > t table
- Accept H0 if t count < t table (Sunyoto, 2011).

Income levels can be calculated using the formula:

$$Pd = TR - TC$$

Information:

Pd = Income (Rp)

TR = Total Revenue (Rp)

TC = Total Cost (Rp)

(Soekartawi, 2006).

III. Research Results and Discussion

Based on primary data, data obtained from the average income of laying hen breeders before granting credit and after granting credit with the following results:

**Table 1 Income Earned by Laying Breeders Before Giving Credit
(Period 31 December 2011)**

No	Description	Average Value (Rp)
1	Total Revenue	7.554.627.830,77
2	Total Cost	7.063.577.021,77
Total Revenue / Year		491.050.809,00
Total Income / Month		40.920.900,75

Source: Primary Data Processed, 2019

**Table 2 Income Earned by Laying Breeders After Giving Credit
(Period 31 December 2018)**

No	Description	Average Value (Rp)
1	Total Revenue	11.565.389.076,92
2	Total Cost	10.813.638.786,92
Total Revenue / Year		751.750.290,00
Total Income / Month		62.645.857,50

Source: Primary Data Processed, 2019

t Test (Paired Sample t Test)

Analysis of t-test statistical test results (Average difference test Paired sample t-test) was used to determine the difference in the amount of production and income of laying hens farmers before and after the provision of bank credit in Langkat Regency.

Table 3 Statistics
Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Monthly Income Before Credit	40920900,7500	40	27259070,80944	4310037,53288
Monthly Income After Credit	62645857,6000	40	48011951,36451	7591356,06105

In Table 5.3 presents a description of the pair of variables analyzed, which includes the mean (before) given credit 4.0921E7 with a Standard Deviation of 2.72591E7 and after being given an average credit of 6.2646E7 with a Standard Deviation of 4.80120E7.

Table 4 Correlations

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Pendapatan Per Bulan Sebelum Kredit & Pendapatan Per Bulan Setelah Kredit	40	,945	,000

In Table 5.23 presents the results of the correlation between the two variables, which produces a number 0.945 with a probability value (sig.) 0,000. This states that the correlation between before being given credit and after being given credit is significantly related, because the probability value is < 0.05.

Table 5 t Test

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pendapatan Per Bulan Sebelum Kredit - Pendapatan Per Bulan Setelah Kredit	-21724956,85000	23992353,51208	3793524,17631	-29398083,75635	-14051829,94365	-5,727	39	,000

Hypothesis:

* **Ho = Both population averages are the same (farmer income before being given credit with after being given credit is the same or not significantly different)**

* **H1 = Both population averages are the same (farmer income before being given credit with after being given credit is not the same or significantly different)**

Based on the comparison between t count with t table:

If t count > t table, then Ho is rejected

If t count < t table, then Ho is accepted

It is known that the t count of output is -5,727

While the data table statistics are searched in table t:

The level of significance (a) is 5% or the level of trust is 95%. df (gree of freedom) or degree of freedom is n-1 or 40-1 = 39. The test is carried out two sides or two tails because it will be known whether the average before giving credit is the same as after giving credit or not. The need for two sides can also be known from the SPSS output which states 2 tailed. From table t, the number = 2.022 is obtained.

Because t count is located in the Ho area is rejected, it can be concluded that before giving credit to chicken farmers and after giving credit to chicken farmers it is not the same or significantly different, which means that the program of lending to chicken farmers is done successfully significantly.

Based on the comparison of probability values (Sig.):

If the probability is > 0.05, then Ho is accepted

If the probability is < 0.05, then Ho is rejected

It can be seen that the t count is -5,727 with a probability value of 0,000. Because the probability is 0,000 < 0,05, then Ho is rejected, which means that the income before giving credit to chicken farmers and after giving credit is not the same or is significantly different.

IV. Conclusion

The results of this study indicate that the provision of credit to laying chicken breeding business has a positive and significant effect on the income of laying chicken farmers in Langkat District, North Sumatra. Giving credit to laying chicken farms in Langkat Regency, North Sumatra has a positive and significant effect on increasing egg production.

There are several recommendations that can be taken into consideration for the Government and

subsequent Researchers. First, It is expected that the government through the Bank (BUMN) can be more active in conducting socialization to laying chicken breeders in Langkat District, North Sumatra, to convey benefits and procedures for applying for credit so that all laying hens breeders in the Regency. Langkat can be helped to run a laying chicken breeding business through a bank loan / credit. Second, this study still contains several limitations, especially related to production factors, such as production of feed quantities, cage area, number of workers, etc. It is expected that the next researcher is advised to examine the factors that have not been studied.

References

- [1]. Arikunto, S. 2001. *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.
- [2]. Asnawi. 2009 *Mikro Ekonomi Teori Pengantar*. Edisi ke-3. Cetakan 27. Rajawali Pers. Jakarta.
- [3]. Dendawijaya, Lukman. 2009. *Manajemen Perbankan ; Edisi Kedua*. Ghalia Indonesia. Jakarta.
- [4]. Anonymous; 2010. *Peningkatan Kesejahteraan Petani Dalam Pencapaian Swasembada dan Swasembada Berkelanjutan Pangan*. Departemen Pertanian Jakarta.
- [5]. Hasan, Iqbal. 2002. *Pokok-pokok Materi Metodologi Penelitian dan Aplikasinya*. Ghalia Indonesia. Jakarta.
- [6]. Hasibuan, Melayu. 2007. *Dasar – Dasar Perbankan*. Bumi Aksara. Jakarta
- [7]. Husein Umar, 2005, “Riset Pemasaran dan Perilaku Konsumen, PT. Gramedia Pustaka Utama, Jakarta.
- [8]. Ilham Fadhly. (2015). “Pengaruh Pemberian Kredit Terhadap Perkembangan UMKM di Indonesia”. .Jakarta
- [9]. Kasmir. 2008. *Bank dan Lembaga Keuangan Lainnya*. Edisi Revisi 2008. Jakarta: Raja Graffindo Pers.
- [10]. Khoirun Nisak. (2013). “Pengaruh Pinjaman Modal terhadap Pendapatan UMKM di Kota Mojokerto”. Jawa Timur
- [11]. Kusnadi. 2000. *Akuntansi Keuangan Menengah*. Malang : Penerbit Universitas Brawijaya.
- [12]. Malik, A. 2003. *Dasar Ternak Unggas*. Fakultas Peternakan Perikanan. Universitas Muhammadiyah Malang, Malang.
- [13]. Mc Donald, P., R. A. Edwards, J. F. D. Greenhalgh and C. A. Morgan. 2002. *Animal Nutrition*. 5 th Edition. Longman Scientific and Technical, New York
- [14]. Natzir M. 2000. *Metodologi Penelitian*. Cetakan ke-3. Jakarta: Ghalia Indonesia.
- [15]. Rasyaf, M. 2001. *Beternak Ayam Pedaging*. Cetakan Ke-XX. Penebar Swadaya. Jakarta.
- [16]. Soekartawi, 2006. *Teori Ekonomi Produksi Dengan Pokok Bahasan Analisis CobbDouglas*. Jakarta : PT Raja Grafindo Persada.
- [17]. Sudarmono. 2003. *Pedoman Pemeliharaan Ayam Ras Petelur*. Kanisius, Yogyakarta.
- [18]. Sugiyono. 2004. *Metode Penelitian Bisnis*, cetakan ketujuh. Bandung: CV. Alfabeta.
- [19]. Suharno. 2003. *Analisis Kredit*. Djembatan. Jakarta.
- [20]. Supranto. 2011. *Statistika Teori dan Aplikasi*. Erlangga. Jakarta
- [21]. Suprijatna, E. U. Atmomarsono, dan K. Ruhyat. 2005. *Ilmu Dasar Ternak Unggas*. Cetakan 1. Penebar Swadaya. Jakarta.
- [22]. Suyatno. 2003. *Dasar-dasar Perkreditan*. Jakarta : Gramedia.
- [23]. Suyatni. Thomas, 2002. *Kelembagaan Perbankan*. LP FE. Jakarta.
- [24]. Untung, Budi. 2000. *Kredit Perbankan di Indonesias*. Penerbit Andi. Yogyakarta.
- [25]. Yuwanta, T. 2010. *Pemanfaatan Kerabang Telur*. Program Studi Ilmu dan Industri Peternakan. Fakultas Peternakan. Universitas Gajah Mada, Yogyakarta.

Akhmad Fauzan. " Differential Test of Laying Breeders' Income with the Provision of Banking Loans in Langkat Regency. "IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS) 12.2 (2019): PP- 14-17.