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# HAD FARMER GROUPS AS AN INNOVATION IMPROVED ECONOMIC VILLAGES

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## ABSTRACT

This expectation holds for both the present and the future. There is no way around it that the agriculture industry, which is essential to the functioning of the country's economy, will be required to adjust to the new economic landscape. In Indonesia, chili is considered one of the primary commodities, mainly because its price is volatile and often contributes to high inflation rates. To provide sufficient animal protein for the population, one alternative is to do subsistence farming on a smaller scale. Many academics who contributed to the body of academic literature think that agricultural trade is a significant driver of economic expansion. The outputs of the farmer's farming system for producing chile and chicken have converged. Chili waste, whether fresh or preserved, can be used as feed for poultry, while the waste produced by livestock can be utilized as fertilizer for chili plants. It is utilizing simple innovations to increase the nutritional value of agricultural land and repurposing agricultural waste as animal feed is one of the primary focuses of the agricultural development strategy being implemented by the North Sumatra Province. This is one of the province's primary areas of concentration. Its purpose is to put in place an integrated system that will be of use to breeders and farmers by boosting and maintaining their incomes. The relationship between these two aspects of development might result in higher household incomes and crop and plantation yields. Farmer and breeder households are expected to benefit financially from developing a strategy that will connect the chicken slaughtering industry with the cultivation of the most productive food crops.

***Keyword:*** Farmer, Agricultural, Innovations, Economic, Productive.

## I. INTRODUCTION

Farmers are not popular among young people. The idea that being a farmer will not lead to prosperity and money makes the agricultural sector undeveloped; farmers' lives are synonymous with poverty, low

education, and mud. Good human resources are crucial to the success of agricultural development projects (Rosenzweig, 1977); (Kidd, et al., 2000); (Swanson, 2005); (Xie & Zhong, 2006); (Xuan, 2018). The culprits are nevertheless considered to be poor businesspeople because they lack sufficient capital, knowledge, skills, and technology and lack the mental fortitude to advance and grow in their respective fields (Tri, 2019).

The acceleration of farmers' socio-economic growth, accessibility to agricultural knowledge, accessibility to money, infrastructure, markets, and the adoption of agricultural technologies are all areas that rural farmer institutions contribute to. Having a farmer institution also makes it simpler for the government and other stakeholders to support and assist farmers (Suasih et al., 2018); (Hariadi & Widhiningsih, 2015). Successful marketing of agricultural commodities is suitable for farmers and consumers because it allows surplus production in one region to be transferred to another with a reasonable trading fee (Adenegan et al., 2012). The wellbeing of farm families should be the primary focus of both agricultural and national development efforts (Wijana & Setiawina, 2021).

However, in this sense, development refers to a particular form of change that is predetermined by definition, as opposed to an overall examination of change (Basmar, et al., 2021). The demands of human beings are varied, and in order for man to be able to satisfy all of these needs, he is required to work (Sipayung, et al., 2022). In today's world, it is virtually hard to overstate the significance of acquiring a strong understanding of economics (Faried, et al., 2021; Faried, et al., 2021). Having a strong connection between business and economics is good for economic growth (Faried, et al., 2022). In the year 2015, the countries which are members of the United Nations made a collective commitment to support a total of 17 Sustainable Development Goals (SDGs) (Faried, et al., 2022). Since many decades ago, people have been aware of the problem with transparency and sustainability (Asheim, 1986). A nation's ability to generate money can be increased through increased trade, which is one of the necessary conditions that must be met in order to achieve sustainable development. Productivity among the populace and economic growth are two indicators that can be used to evaluate how effectively a nation's various development measures are working (Kurniullah et al., 2021). Economic activity is created when individuals, groups, or societies engage in the production or consumption of commodities and services (Marit et al., 2021).

Efforts are made to produce less harmful food to the environment, taking into account the farmers' willingness and capacity to grow food sustainably. Products from the agricultural sector also play a role in environmental conservation, which is another essential component of sustainable development. In addition,

agriculture is frequently considered one of the primary industries in various countries. We have witnessed, over the last few decades, the enormous role that global commerce plays in the reduction of poverty, the creation of jobs, and the promotion of growth. In order to achieve the other Sustainable Development Goals (SDGs) and make sure that everyone has access to nourishing food that is also produced in a sustainable manner, Sustainable Development Goal 2 encourages all communities to integrate the production and consumption of food (Thornton, 2010); (Ittersum et al., 2016).

Investigating the export market for agricultural goods is a logical course of action given that it is the primary driver of economic growth in the agricultural sector and a significant contributor to overall economic activity. It is of tremendous practical significance for the achievement of agricultural modernization and the development of sustainable practices. It is common knowledge that chicken production in Cingkes Village requires much manual labor. Furthermore, chicken farming mainly consists of small-scale farms, the dominant form of economic growth.

The number of broiler chicken farms in 2020 is 128.41.804, more than layer chickens and native chickens. In addition, during the production process, owners of many farms (or houses) tend to ignore issues related to waste, mortality, and drug treatment, resulting in environmental degradation and spread of disease. In order to successfully integrate livestock and crops, there needs to be synergy, which may be considered beneficial connections between the two sets of activities. Farmers use manure as organic fertilizer for their crops, which are then fed to their animals, which is an integral part of the agricultural industry. Because there is a shortage of feed that is easily accessible, it is necessary to make use of plant waste, such as rice straw, maize straw, bean waste, and other forms of agricultural waste.

Increasing the variety of crops grown in agriculture, such as legumes, fruits, vegetables, and foods derived from animals, offers a significant amount of potential to improve the nutritional diversity of the food supply (ASF) (Bruyn et al., 2017). Rapid production cycles, minimal input needs, and the relative liquidity of poultry as an asset have all led to smallholder poultry production being recognized as an important stepping stone in the route out of poverty in developing nations (Alders & Pym, 2009); (Bessell et al., 2020). During the age of rapid industrialization and urbanization, the chicken meat production system underwent a dramatic transformation, shifting from an extended to an intense industrialized model (Hanh et al., 2019). The well-being of laying hens is something that consumers, industry (Morales et al., 2021), and the local government in Desa

Cingkes are all interested in. It is hoped that increased innovation distributed through farmer groups will increase productivity.

## II. LITERATURE REVIEW

Information Age openness and tech development (Hapsari et al., 2022). One of the grounds that is widely anticipated to support economic growth both now and in the future is the agriculture sector. Creative economy actors need to collaborate in order for local governments to agree on how to make a breakthrough that will be meaningful (Sartika et al., 2022). The connection between economic activity, society as a whole, and the ever-evolving institutions contextualize and condition economic activity (Faried et al., 2021).

The promotion of sustainable development is given top emphasis in rural areas. The viability of smallholder farms is dependent on factors such as the number of different species present, the cycle of nutrients, the total production capacity, and economic effectiveness. The topic of sustainable development concerns all of us on various social scales. Ecologists may understand the Brundtland Report differently than economists do. However, in general, ecologists are very supportive of the report (United Nations, 1987) as regards how social, economic, and ecological considerations are integrated. Increasing food security by combining aquaculture with livestock raises social, economic, and environmental challenges. Combining aquaculture and cattle to increase food sustainability raises social, economic, and environmental challenges. Whether a society leans toward change or conservatism depends on several factors, some of which are cultural and institutional. Those who live in more complicated settings must rely on resources outside the farm to make ends meet.

Indicators of an individual's sense of well-being include their level of happiness. Based on these primary sources, we can ask the two questions below. As an essential consideration, a substance's second well-being can be summed up as a sum of its intensity. In a state of well-being, every one of a person's wants has been addressed, and they are motivated to take action to further their happiness and that of their loved ones and for the greater good of society.

This means, in general, that examples of family use are taken into consideration as markers of financial Transition events and government aid from the people of a country. In order to assess the family's level of usage, which may subsequently be calculated, it is necessary to determine the degree to which the utilization plan is actually put into practice. There are fewer negative effects on the

environment because such systems are more like natural ecosystems. In addition to reviewing the government support from families, the families of the implementers play a role in the financial reversal of events and the government help from state community organizations by overseeing the use of the draft. This is because families are included in the process of determining how well the draft is used. This is because not a single family possesses a tactic and a measure of usage that are identical to those employed by the other families. Because of the influence that its application has had on how the government aids families who need assistance, it is often understood by reference to the example of family use.

The main problem is the relatively inefficient use of readily available grains, leading to competition between chickens and chili peppers for available feed. The consequences are felt globally. This is good news for the environment, and the long-term viability of feed sources as consumption of chili and chicken is on the rise.

## III. RESEARCH METHODS

This study combines qualitative and quantitative methods of investigation. This study uses a descriptive approach as its primary method, and it uses a survey as its primary means of collecting data. A survey is a method for gathering information that uses a questionnaire containing questions. In the meantime, the data a gathered by observation, in-depth interviews, and a study of the relevant literature. By using Confirmatory Factor Analysis

## IV. RESULTS OF RESEARCH

The suitability test of the research model is used to test the goodness of fit level of the research model. The GFI measure is basically a measure of the ability of a model to explain the diversity of data. GFI scores range from 0 – 1. Actually, there are no standard criteria for a good GFI score limit. However, it can be concluded that a good model is a model that has a GFI value close to 1. In practice, many researchers use a minimum limit of 0.9. The following are the results of the AMOS analysis:

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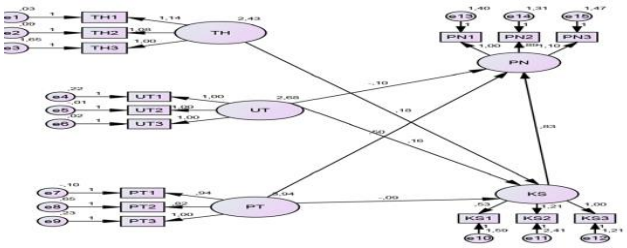


**Figure 1.** Amos Output Framework Authors

**Table 1.** Results of the Feasibility Test of the Research Model

| *Goodness of Fit indeks* | *Cut of Value* | Hasil Analisis | Evaluasi Model |
|---|---|---|---|
| *Min fit function of chi-square* | p>0,05 | (P =0.88) | Fit |
| *Chisquare* | Carmines & Melver (1981) Df=168 = 129.69 | 1961,49 | Fit |
| *Non Centrality Parameter (NCP)* | Penyimpangan sample cov matrix dan fitted kecil<Chisquare | 2634,962 | Fit |
| *Root Mean Square Error of Approx (RMSEA)* | Browne dan Cudeck (1993) < 0,08 | 0,322 | Fit |
| Model AIC | Model AIC >Saturated AIC <Independence AIC | 2788,962>Saturated AIC (240) < Independence AIC (8398,657) | Fit |
| Model CAIC | Model CAIC <Saturated CAIC <Independence CAIC | 2948,434 <Saturated CAIC (802,843) <Independence CAIC (8469,012) | Fit |
| *Normed Fit Index (NFI)* | >0,90 | 0.975 | Fit |
| *Parsimoni Normed Fit Index (PNFI)* | 0,60 – 0,90 | 0.653 | Fit |
| *Parsimoni Comparative Fit Index (PCFI)* | 0,60 – 0,90 | 0.658 | Fit |
| *PRATIO* | 0,60 – 0,90 | 0.819 | Fit |
| *Comparative Fit Index (CFI)* | >0,90 (Bentler (2000) | 0.981 | Fit |
| *Incremental Fit Index (IFI)* | >0,90 Byrne (1998) | 0.982 | Fit |
| *Relative Fit Index (RFI)* | 0 – 1 | 0.603 | Fit |
| *Goodness of Fit Index (GFI)* | > 0,90 | 0.952 | Fit |
| *Adjusted Goodness of Fit Index (AGFI)* | >0,90 | 0.975 | Fit |
| *Parsimony Goodness of Fit Index (PGFI)* | 0 – 1,0 | 0.396 | Fit |

The AGFI size is a modification of the GFI by accommodating the degree of freedom model with other models being compared. AGFI > 0.9 is good fit, while 0.8 > AGFI > 0.9 is marginal fit. The AGFI value of 0.975 exceeds the number 0.9 so that the model is good/fit. The TLI or non-normed fit index (NNFI) measure is a measure for comparisons between models that considers the number of coefficients in the model. TLI>0.9 is good fit, while 0.8>TLI>0.9 is marginal fit. The TLI value is between 0.8 and 0.9, which is 0.861 so that the model is good. The NFI value is the magnitude of the mismatch between the target model and the base model. NFI values range from 0–1. NFI > 0.9 is good fit, while 0.8 > NFI > 0.9 is marginal fit. The NFI value is between 0.8 and 0.9, which is 0.975 so that the model is good. The IFI value ranges from 0 – 1. IFI > 0.9 is good fit, while 0.8 > IFI > 0.9 is marginal fit. The IFI value is between 0.8 and 0.9, which is 0.912 so that the model is good. CFI values range from 0 – 1. CFI > 0.9 is good fit, while 0.8 > CFI > 0.9 is marginal fit. The IFI value is above 0.9, which is 0.982, so the model is good. A smaller positive value indicates that parsimony is better used for comparisons between models. The value is 2788,962> Saturated AIC (240) <Independence AIC (8398,657) so that the model is fit. A smaller positive value indicates that parsimony is better used for comparisons between models. CAIC value 2948.434 < Saturated CAIC (802.843) < Independent CAIC (8469.012) so that the model is fit.

The estimation parameter between the influence of Living Standards on community welfare shows significant results in Cingkes Village (t-CR = 5,017) at the 0.000 level of significance. This indicates that living standards have a substantial impact on community welfare. A strong link between these two variables is demonstrated here. The first hypothesis, that an increase or maintenance in the standard of life will improve the well-being of farmers and breeders, has thus been confirmed. Cingkes Village's high standard of life before and during the good land convention was helpful for the well-being and living conditions of local farmers. Before chilies and fields were developed, they tried to make a living by cultivating string beans. Since pests never win, it's physically impossible for them to grow high-quality fruit. Although the town's residents still rely to some extent on the sale of eggs, the production of chili peppers has supplanted hen farming as the primary means of livelihood.

Cingkes Village, in Simalungun Regency, has a low level of living due to its residents' low incomes. Thus, the second hypothesis, which holds that an individual's income is unaffected by their standard of living, cannot be confirmed by the data. While agricultural extension activities would greatly benefit the people of Cingkes Village, Simalungun Regency, they are poorly organized, held seldom, and the Village Head staff is uninterested about them. Despite the fact that agricultural extension

operations are greatly needed, they are rarely carried out. Time and results are obviously quite diverse based on the achievements of farmers and breeders in terms of income. Producing chili once a month or once every two weeks yields results. Livestock production relies on the time and effort invested in raising animals for the express goal of selling them on the market, making annual or monthly predictions impossible. This prevents estimation of animal productivity for the time being. Using a t CR of 4.864 and a significance threshold of 0.000, we find that Usahatani has a very significant effect on the quality of life in Cingkes Village, Simalungun Regency. This suggests that there is a considerable relationship between farming and community prosperity, as measured by the estimated parameter. This result supports the third hypothesis, which suggests that farming is a crucial factor in enhancing overall well-being. The total amount of land included in Farming 0.448 has a good effect on chili producers' standard of living, as shown by studies.

One could also contend that chili farmers would benefit from an increase in overall agricultural land because it would provide them more room to grow their operations. This claim is supported by the results of the regression analysis. Since land-based farming practices have such a profound effect on farmers and breeders, I've noticed that as farmland expands, farmers and breeders benefit from greater income and better business conditions. To the extent that yield is measurable, the amount of land that is available for harvesting has a substantial impact on it. Cattle benefit from agricultural land when it is used to raise anglicized chickens, and the more land used for farming, the greater this benefit. Subsidized fertilizer aid is available to farmers who cultivate less than 1 hectare of land in order to help them cope with the higher salary and maintenance costs associated with larger plots of land.

## V. CONCLUSION

The economic well-being of farmers and ranchers among the population of Cingkes Village, which is located in Simalungun Regency, is significantly impacted by the style of living in the village. This is the situation in which we find ourselves, where the CR value is 5,017, but the probability value is 0.000. People in Cingkes Village, which is located in Simalungun Regency, who make their living as farmers and ranchers do not observe a significant association between the standard of living they maintain and the amount of money they bring in.

The cultivation of biota that can be used as chicken feed on plantations can lead to a reduction in the cost of chicken feed of up to fifty percent. Plantations can be used to develop biota that can be used as chicken feed. Because of the integrated agricultural technique that is utilized to develop chile and chicken crops, rice and ducks can be harvested simultaneously without causing an interruption in production. This is made possible by the fact that chile and chicken crops are also grown. This is only one of the many advantages that may be gained from utilizing this approach. If efforts are made to improve the agricultural system, then there will be a direct impact on the financial well-being of farmers.

**Referensi**

Adenegan, K. O., Adeoye, I. & Ibidapo, I., 2012. SPATIAL PRICE ANALYSIS OF TOMATOES IN NIGERIA. *INTERNATIONAL JOURNAL OF MANAGEMENT AND MARKETING RESEARCH*, 2(5), pp. 31-38.

Alders, R. & Pym, R., 2009. Village poultry: still important to millions, eight thousand years after domestication. *World's Poultry Science Journal*, 2(65), pp. 181-190.

Asheim, G. B., 1986. Hartwick's Rule in Open Economies. *The Canadian Journal of Economics*, 3(19), pp. 395-402.

Basmar, E. et al., 2021. *Ekonomi Pembangunan: Strategi dan Kebijakan.* Medan(Sumatera Utara): Yayasan Kita Menulis.

Bessell, P. R. et al., 2020. An analysis of the impact of Newcastle disease vaccination and husbandry. *Preventive Veterinary Medicine*, 104975(177).

Bruyn, J. d. et al., 2017. The chicken or the egg? Exploring bi-directional associations between Newcastle disease vaccination and village chicken flock size in rural Tanzania. *PLOS ONE,* 11(12), pp. 1-21.

Faried, A. I. et al., 2021. *Sosiologi Ekonomi.* Medan(Sumatera Utara): Yayasan Kita Menulis.

Faried, A. I. et al., 2022. *Bisnis dan Perekonomian Indonesia.* Medan(Sumatera Utara): Yayasan Kita Menulis.

Faried, A. I., Sembiring, R. & Hasanah, U., 2022. A Chicken Farm and Chilli Plants in Cingkes Village for Agricultural Development and Economic. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal),* 3(5), pp. 24208-24219.

Faried, A. I., Sembiring, R. & Hasanah, U., 2022. Analysis of Rural Agriculture and Economic Development in Cingkes Village Through The Integration of Chillies and Chickens. *International Journal of Research and Innovation in Social Science (IJRISS),* VI(VIII), pp. 208-213.

Hanh, H. Q., Xuan, N. T. & Ton, V. D., 2019. Integration of animal welfare into assessment of broiler chicken production systems toward sustainable development in Vietnam. *Livestok Research For Rural Development,* 5(31).

Hapsari, T. D. et al., 2022. *PENGANTAR EKONOMI MAKRO.* s.l.:PT GLOBAL EKSEKUTIF TEKNOLOGI.

Hariadi, S. S. & Widhiningsih, D. F., 2015. Farmer Group Role On Adoption Of Local Wisdom Innovation To Support Food Self-Sufficiency. *International Journal of Humanities and Social Science Invention,* 10(4), pp. 51-57.

Ittersum, M. K. v., Bussel, . L. G. J. v., Wolf, J. & Cassman, K. G., 2016. Can sub-Saharan Africa feed itself?. *AGRICULTURAL SCIENCES,* 52(113), pp. 14964-14969.

Kidd, A. D., Lamers, J. P. A., Ficarelli, P. P. & Hoffmann, V., 2000. Privatising agricultural extension: caveat emptor. Journal of Rural studies. 1(16), pp. 95-102.

Kurniullah, A. Z. et al., 2021. *Pembangunan dan Perubahan Sosial.* Medan(Sumatera Utara): Yayasan Kita Menulis.

Marit, E. L. et al., 2021. *Pengantar Ilmu Ekonomi.* Medan(Sumatera Utara): Yayasan Kita Menulis.

Morales, N., Ugaz, C. & Cañon-Jo, H., 2021. Perception of Animal Welfare in Laying Hens and Willingness-to-Pay of Eggs of Consumers in Santiago, Chile. *Poultry Industry*, 2(73).

Rosenzweig, M. R., 1977. Farm-Family Schooling Decisions: Determinants of the Quantity and Quality of Education in Agricultural Populations. *Journal of Human Resources.*

Sartika, S. H. et al., 2022. *Ekonomi Kreatif.* Medan(Sumatera Utara): Yayasan Kita Menulis.

Sipayung, P. D. et al., 2022. *Hukum Ketenagakerjaan.* Medan: Yayasan Kita Menulis.

Suasih, N., Budhi, M., Yasa, I. N. & Saskara, I., 2018. Implementation of Local Wisdom in Adoption of Innovation to Increase Traditional Farmer's Welfare in Bali. *Journal of Comparative Asian Development*, 1(17), pp. 197-215.

Swanson, B., 2005. *Improving agricultural extension.*. s.l.:Daya Books.

Thornton, P. K., 2010. Livestock Production: Recent Trends, Future. *Royal Society Publishing*, 1554(365), p. 2853–2867.

Tri, P., 2019. THE INFLUENCE OF THE EFFECTIVENESS OF FARMER GROUP ON INNOVATION ADOPTION OF INTEGRATED CROP MANAGEMENT MODEL OF THE NATIONAL STRATEGIC FOOD CENTER IN KAPUAS REGENCY, CENTRAL KALIMANTAN PROVINCE OF INDONESIA. *Russian Journal of Agricultural and Socio-Economic Sciences*, 88(4), pp. 194-208.

Unites Nations, 1987. *United Nations Report of the World Commission on Environment and Development : Our Common Future*, s.l.: s.n.

Wijana, I. W. & Setiawina, N. D., 2021. FARMERS' INSTITUTIONS AND SOCIAL CAPITAL IN IMPROVING. *International Journal of Economics, Business and Management Research*, 3(5), pp. 222-235.

Xie, Z. & Zhong, F., 2006. Mobility of Rural Workers, Human Capital, and Social Resources: Results and Analysis on Household Survey in Jiangsu Province. *Issues in Agricultural Economy*, Issue 8.

Xuan, V. T., 2018. Rice production, agricultural research, and the environment. In Vietnam's rural transformation. pp. 185-200.