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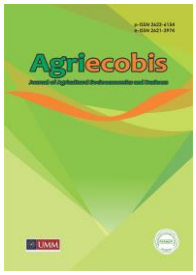

Research Article

Staying Happy During COVID-19: Analyzing Happiness Indicators Among Poultry Farmers in Malang Regency

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ABSTRACT

This study aims to examine the contribution of each happiness indicator, assess the overall happiness levels among laying hen and broiler chicken farmers, and analyze variations in happiness based on farm scale during the COVID-19 pandemic in Malang Regency. The research site was chosen through purposive sampling, as Malang Regency is a key center for poultry farming in East Java. Accidental sampling yielded 75 respondents, comprising 36 farmers with less than 5,000 livestock and 39 with more than 5,000. Results identified 16 valid indicators out of the 21 used in the study. The roles of each happiness indicator were as follows: education and skills (0.782), employment (0.780), health (0.632), family harmony (0.735), leisure availability (0.757), social relations (0.754), security conditions (0.584), happiness (0.716), absence of depression (0.793), optimism (0.867), empathy (0.570), independence (0.828), environmental mastery (0.815), self-development (0.598), positive relationships (0.615), and life goals (0.605). The overall happiness score for poultry farmers was 4.37, with laying hen farmers at 4.33 and broiler chicken farmers at 4.39, placing them in the "happy" category. No significant difference was observed in happiness levels between farmers with business scales below and above 5,000 livestock.

INTRODUCTION

Meat and eggs are poultry products that provide complete nutrition, are relatively affordable, readily available, easily digestible, and simple to process. Broiler chickens exhibit a rapid growth rate, produce a larger quantity of meat compared to other chicken breeds, have efficient feed utilization, and reach harvest age quickly. Laying hens, meanwhile, produce a high and consistent yield of eggs. The potential for laying hen farming is significant, as it can effectively meet community consumption needs (Mangalisu, 2017; Pelafu et al., 2018; Pusat Data dan Sistem Informasi Pertanian, 2020; Umam et al., 2015).

Over the past decade, the broiler chicken population has grown by 12.76%. Broiler chicken meat production in Indonesia has shown fluctuations but generally increased, with an average annual growth rate of 12.75%. According to the National Socio-Economic Survey (SUSENAS) from 2010 to 2019, per capita broiler chickens meat consumption increased by 5.64% annually, driven by population growth, rising incomes, and improved nutritional

awareness. Retail-level broiler meat prices during the same period rose by an average of 2.97% per year. Price increases at the consumer level are influenced by complex marketing chains, which result in high prices for consumers but relatively low prices for producers (Pusat Data dan Sistem Informasi Pertanian, 2020a). The laying hen population in Indonesia increased at an average annual rate of 2.82% from 2017 to 2020. Egg production has also grown, with an annual increase of 2.90%. Although egg consumption levels have fluctuated, they exhibit a general upward trend as the population increasingly recognizes eggs as a valuable source of protein. Egg consumption grew at an average rate of 0.08% per year. Retail egg prices for the 2018-2020 period fluctuated but generally trended upward on a monthly basis (Pusat Data dan Sistem Informasi Pertanian, 2020).

The cultivation of laying hens and broiler chickens must consider not only production and consumption but also farmers' welfare levels. Farmers' welfare can be assessed by their purchasing power to meet daily needs; higher purchasing power generally indicates a higher level of prosperity. Home ownership also serves as a key welfare indicator, as housing, along with food and clothing, constitutes a fundamental human need. In recent years, welfare has expanded beyond economic metrics to include both material prosperity (welfare or well-being) and subjective well-being, or happiness. Happiness indicators encompass dimensions of life satisfaction, emotional states, and life meaning. Life satisfaction is further divided into personal life satisfaction and social life satisfaction sub-dimensions.

In Indonesia, the welfare index rose from 68.28 in 2014 to 70.69 in 2017, placing the population within the moderately happy category. Regionally, the happiness index for urban residents tends to be higher than that of rural residents. In East Java, the happiness index also increased, from 68.70 in 2014 to 70.77 in 2017, surpassing the national average (Badan Pusat Statistik Indonesia, 2017). The happiness level of broiler chicken farmers is categorized as happy, with key contributing indicators including health, income, family harmony, environmental security, positive emotional experiences, and opportunities for self-development (Habibi, 2021; Ibrahim, 2021).

Malang Regency is a primary production center for laying hens and broiler chickens in East Java, with poultry populations distributed across thirty-three sub-districts. Due to the COVID-19 pandemic, many poultry farmers in the region face significant losses, compounded by overproduction, which has led to drastic price drops and decreased market demand as the economy weakened. Farmers have struggled to meet feed and operational costs under these conditions, aligning with findings by Armelia et al (2020); Ilham & Haryanto (2020), which indicate that the pandemic has had both positive and negative effects on broiler chicken farming. Large-scale social restrictions have limited community activities, reducing consumer purchasing power and disrupting the supply chain, which has led to an imbalance between supply and demand. Farmers have also incurred additional costs associated with culling Day-Old-Chickens (DOC), preventive measures, compensation, industry partnership disruptions, and lost market opportunities. Overall, chicken meat sales turnover has decreased by 30-50% from pre-pandemic levels, contributing to reduced selling prices and financial losses for many farmers.

This study aims to evaluate the role of each happiness indicator, assess happiness levels among laying hen and broiler chicken farmers, and examine variations in farmers' happiness based on the scale of farm ownership during the COVID-19 pandemic. Unlike previous studies, this research applies happiness indicators from Badan Pusat Statistik (2017) and the Oxford Happiness Questionnaire (2020) specifically to laying hen and broiler chicken farmers in Malang Regency.

METHOD

This study selected Malang Regency as the research site through purposive sampling, given its role as a major center for laying hen and broiler chicken farming with a significant livestock population. The sample was obtained using accidental sampling, resulting in 75 respondents, of whom 36 were farmers operating on a business scale below 5,000 livestock, and 39 were operating above 5,000 livestock. Data were collected through observation, interviews, and questionnaires. The study employed a 6-point Likert scale, based on the Oxford Happiness Questionnaire, to measure dimensions of life satisfaction, feelings, and meaning in life. Response options included: Strongly Disagree (1), Moderately Disagree (2), Slightly Disagree (3), Slightly Agree (4), Moderately Agree (5), and Strongly Agree (6).

The research variable, the happiness index, comprises three dimensions: life satisfaction, feelings, and meaning of life. The personal life satisfaction sub-dimension includes five indicators: education and skills, employment/business/main activities, household income, health, and housing conditions and facilities. The social life satisfaction sub-dimension includes family harmony, availability of free time, social relationships, environmental conditions, and environmental safety. The feelings dimension is represented by five indicators: happiness, absence of worry, lack of depression, optimism, and empathy. The meaning of life dimension includes six indicators: independence, environmental mastery, self-development, positive relationships, life goals, and self-acceptance. These 21 indicators were adapted from Badan Pusat Statistik (2017) and the Oxford Happiness Questionnaire.

The study applied Confirmatory Factor Analysis (CFA) to validate the indicators against latent variables, using Principal Component Analysis (PCA) for factor extraction. The CFA method was used to evaluate the validity and reliability of each indicator. The happiness index calculation formula is as follows:

$$Personal\ life\ satisfication = \frac{\sum w_i \times x_i}{\sum w_i}$$

$$Social\ life\ satisfication = \frac{\sum w_i \times x_i}{\sum w_i}$$

$$Life\ satisfication = \frac{w_1 \times Personal\ life\ satisfication\ + w_2 \times Social\ life\ satisfication}{w_1 + w_2}$$

$$Feelings = \frac{\sum w_i \times x_i}{\sum w_i}$$

$$Meaning\ of\ life = \frac{\sum w_i \times x_i}{\sum w_i}$$

The happiness index can be calculated with the following formula:

$$Happiness\ index = \frac{w_1 \times Life\ satisfication\ + w_2 \times Feeling + w_3 \times Meaning\ of\ life}{w_1 + w_2\ + w_3}$$

Where:

1. x_i is the score of the i-th indicator
2. w_i is the weight of the i-th indicator
3. Determination of the number of weights (w) based on the Confirmatory Factor Analysis (CFA) method

This study employs two data analysis methods. The first method uses Partial Least Squares (PLS) with the SmartPLS 3.0 software to analyze indicators influencing the happiness of laying hen and broiler chicken farmers, as well as to identify the specific impact of each indicator on the happiness of these farmers in Malang Regency. PLS analysis involves both inner model assessment and hypothesis testing. The second method is the Mann-Whitney test, which evaluates differences between two independent samples that may or may not be normally distributed. The null hypothesis posits that both samples have the same mean, while the alternative hypothesis suggests differing means. Conducted as a one-sided test, the alternative hypothesis specifies whether the mean from one population is greater or smaller than that of the other (Silaban et al., 2014). SPSS version 22 assists in testing differences for decision-making purposes, with H0 being rejected if |Z count| ≥ Z table or the significance value ≤ 0.05, indicating a significant difference in the happiness levels of farmers based on business scale.

RESULTS AND DISCUSSION

Characteristics of Respondents

Chicken farming in Malang Regency comprises two main types: laying hens and broilers. Among the respondents, 56% (42 individuals) engage in broiler farming, and 89.33% (67 individuals) are male, as men are typically considered family heads responsible for family welfare (Nurwandi et al., 2018). Most respondents are in the productive age group (15–64 years), enabling them to contribute effectively to household income, adapt to new tasks, embrace technology, and achieve high work productivity (Nurwandi et al., 2018). Educationally, 56% of laying hen and broiler farmers possess a high school or vocational high school diploma, which enhances their ability to understand and implement technology, fostering productivity through directed thinking (Nurwandi et al., 2018). Additionally, 54.67% of respondents support 3–4 family members, with increased dependents placing greater financial pressure on household income (Adiana & Karmini, 2012; Ibrahim et al., 2020).

For most farmers, poultry breeding is their primary occupation, often with years of business experience that contribute to sufficient income for household needs and business growth. Most respondents report between 1–5 years of experience, a factor positively correlated with skill level and productivity. Furthermore, 39 respondents have livestock holdings exceeding 5,000 birds, with livestock numbers reflecting individual capabilities in management, resource fulfillment, and technological innovation. Monthly incomes for most farmers range from IDR 2,100,000 to

IDR 4,000,000, typically sufficient for household expenses and proportionate to their work efforts. However, farmers reported income declines at the beginning of the Covid-19 pandemic due to fluctuations in consumer prices and rising production costs.

Outer Model Evaluation (Measurement Model)

The outer model evaluation of the reflective indicator model encompasses individual item reliability, construct reliability, and average variance extracted (AVE). These measurements fall under the category of convergent validity, which assesses the correlation between constructs and latent variables. A loading factor value of ≥ 0.7 indicates ideal validity, demonstrating that the indicator effectively measures the constructed variable. In other studies, a loading factor value of ≥ 0.5 remains acceptable and meets the criteria for convergent validity.

Construct reliability is evaluated through Cronbach's alpha and composite reliability values. A Cronbach's alpha of ≥ 0.7 is considered acceptable, while a composite reliability of ≥ 0.8 is deemed very satisfactory. The AVE measures the extent of diversity among the manifest variables associated with latent constructs. A higher variance within the latent construct signifies a stronger representation of the latent variable. An AVE value of at least 0.5 indicates a robust measure of convergent validity, suggesting that latent variables explain, on average, more than half of the variance of their indicators (Haryono, 2017).

Validity Test

The validity test involves evaluating the loading factor values and average variance extracted (AVE). Loading factor values and AVE of ≥ 0.5 are considered acceptable and indicative of validity. As shown in Figure 1, several indicators exhibit loading factor values ≤ 0.5, necessitating further examination. Specifically, the income indicator (X1.3), housing and home facilities (X1.5), environmental conditions (X1.9), feelings of not being worried (X2.2), and self-acceptance (X3.6) display loading factor values < 0.5, rendering them invalid for measuring the constructed variable.

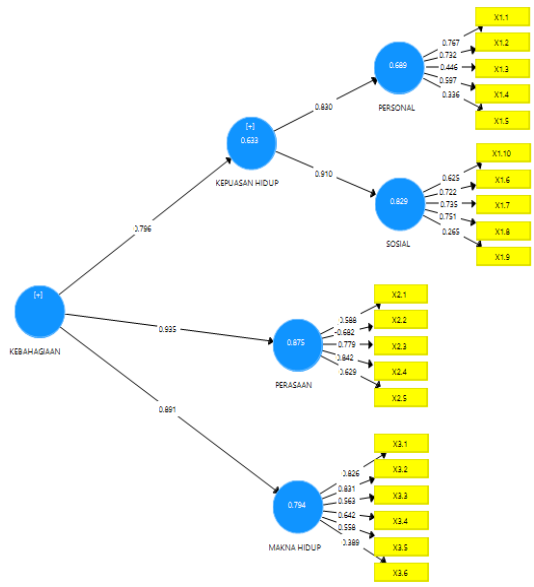

Figure 1. Outer Model Output: Stage One
Source: Data processed with SmartPLS 3.0

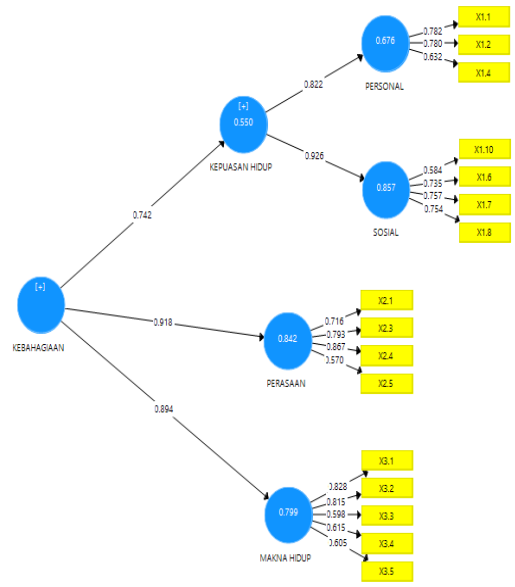

Figure 2. Outer Model Output: Stage Two
Source: Data processed with SmartPLS 3.0

In the initial testing stage, certain indicators failed to meet the required loading factor values and were consequently removed from the model. A subsequent analysis of the remaining indicators yielded loading factor values of ≥ 0.5 across all measures. Within the sub-dimension of personal life satisfaction, the education and skills indicator demonstrated the highest loading factor value, making it the strongest representative of this sub-dimension. In the social dimension's satisfaction sub-dimension, the availability of free time emerged as the most representative indicator, with a loading factor value of 0.757. The indicator reflecting feelings of optimism achieved a loading factor value of 0.867, identifying it as the strongest measure within the feelings dimension. Additionally, the independence indicator recorded a loading factor value of 0.828, marking it as the most significant representative of the meaning of life dimension.

The subsequent validity assessment examines the average variance extracted (AVE) values, as detailed in the following table.

Table 1. *Average Variance Extracted* (AVE) Testing

Variable	Stage One		Stage Two	
	AVE	Description	AVE	Description
Happiness	0.295	Invalid	0.295	Invalid
Life Satisfaction	0.293	Invalid	0.402	Invalid
Personal Life Satisfaction	0.358	Invalid	0.540	Valid
Social Life Satisfaction	0.417	Invalid	0.506	Valid
Feelings	0.504	Valid	0.553	Valid
Meaning of Life	0.427	Invalid	0.491	Invalid

Source: Primary Data, processed 2021

In both the first and second stages of testing the average variance extracted (AVE), several variables recorded values below 0.5, indicating poor convergent validity. Variables achieving a minimum AVE of 0.5 meet the required threshold and therefore demonstrate satisfactory convergent validity, explaining an average of more than half the variance in their indicators.

To assess discriminant validity, we compared the AVE values with the squared correlation values between constructs.

Table 2. AVE and Root AVE Testing

Variable	Stage One			Stage Two		
	AVE	Root AVE	Description	AVE	Root AVE	Description
Happiness	0.295	0.543	Met	0.295	0.543	Met
Life Satisfaction	0.293	0.541	Met	0.402	0.634	Met
Personal Life Satisfaction	0.358	0.598	Met	0.540	0.734	Met
Social Life Satisfaction	0.417	0.645	Met	0.506	0.711	Met
Feelings	0.504	0.709	Met	0.553	0.743	Met
Meaning of Life	0.427	0.653	Met	0.491	0.700	Met

Source: Primary Data, processed 2021

The test results indicate that the square root of the AVE value exceeds the AVE itself, confirming that the latent variable explains more than half of the variance in its indicators, thereby demonstrating strong discriminant validity.

Reliability Test

The reliability test assesses the consistency of measurement instruments in capturing a given concept. Reliability is evaluated using Cronbach's alpha and composite reliability values. The criteria for Cronbach's alpha are as follows: 0.00-0.20 indicates very low reliability, 0.21-0.41 indicates low reliability, 0.42-0.60 indicates moderate reliability, 0.61-0.80 indicates reliability, and 0.81-1.00 indicates high reliability. Cronbach's alpha values for this study are presented in the following table.

Table 3. *Cronbach's Alpha Testing*

Variable	Stage One		Stage Two	
	Cronbach's Alpha	Description	*Cronbach's Alpha*	Description
Happiness	0.824	Very Reliable	0.860	Very Reliable
Life Satisfaction	0.696	Reliable	0.696	Reliable
Personal Life Satisfaction	0.529	Moderately Reliable	0.569	Moderately Reliable
Social Life Satisfaction	0.646	Reliable	0.674	Reliable
Feelings	0.354	Unreliable	0.720	Reliable
Meaning of Life	0.710	Reliable	0.731	Reliable

Source: Primary Data, processed 2021

In the first stage of testing, the Cronbach's alpha for the feeling dimension was 0.354, indicating unreliability. Indicators that did not meet the required threshold were removed, and further testing was conducted. In the second stage, all variables demonstrated reliable Cronbach's alpha values.

Composite reliability testing assesses the internal consistency of indicators within a latent variable and provides a more accurate measure than Cronbach's alpha by not assuming equal indicator weight. A composite reliability value of ≥ 0.7 is considered acceptable (Haryono, 2017). In the first stage, the feeling dimension had a composite reliability of 0.652, which was unreliable. In the second stage, all variables met the reliability criteria with composite reliability values ≥ 0.7.

Table 4. *Composite Reliability Testing*

Variable	Stage One		Stage Two	
	Composite Reliability	**Description**	***Composite Reliability***	**Description**
Happiness	0.863	Reliable	0.885	Reliable
Life Satisfaction	0.786	Reliable	0.784	Reliable
Personal Life Satisfaction	0.721	Reliable	0.777	Reliable
Social Life Satisfaction	0.767	Reliable	0.802	Reliable
Feelings	0.652	Unreliable	0.830	Reliable
Meaning of Life	0.808	Reliable	0.825	Reliable

Source: Primary Data, processed 2021

Evaluation of the Inner Model (Structural Model)

The evaluation of the structural model follows the assessment of the measurement model, focusing on the coefficient of determination (R^2), predictive relevance through blindfolding procedures or calculating the Q-square predictive relevance value, and the Goodness of Fit (GoF) value. The coefficient of determination (R^2) measures the extent to which exogenous variables explain the variance in endogenous variables. According to Ghozali (2014), R^2 values classify models as strong (≥ 0.75), moderate (≥ 0.50), and weak (≥ 0.25). A higher R^2 indicates a more effective model where exogenous variables better explain endogenous variables. Based on the test results, the model explains 60.7% of the life satisfaction variable, 84.4% of the feeling variable, and 80.1% of the meaning of life variable, with the remaining variance influenced by other factors.

Table 5. R^2 values for each variable

Variable	R^2	Criteria
Personal Life Satisfaction	0.662	Moderate
Social Life Satisfaction	0.842	Strong
Life Satisfaction	0.607	Moderate
Feelings	0.844	Strong
Meaning of Life	0.801	Strong

Source: Primary Data, processed 2021

The predictive relevance value (Q^2) assesses the model's predictive capability. Researchers can calculate the Q^2 value using Stone-Geisser's formula (SQ^2) derived from the blindfolding procedure. A Q^2 value greater than zero indicates that the model possesses predictive relevance, while a value less than zero suggests a lack of predictive relevance. Higher Q^2 values signify that the exogenous latent variables serve effectively as explanatory variables capable of predicting the endogenous variables.

The SQ^2 value is calculated as follows:

$$SQ^2 = 1 - (1 - {R_1}^2)(1 - {R_2}^2)(1 - {R_3}^2)(1 - {R_4}^2)(1 - {R_5}^2)$$
$$SQ^2 = 1 - (1 - 0{,}662)(1 - 0{,}842)(1 - 0{,}607)(1 - 0{,}844)(1 - 0{,}801)$$
$$SQ^2 = 1 - (0{,}338)(0{,}158)(0{,}393)(0{,}156)(0{,}199)$$
$$SQ^2 = 1 - 0{,}000651$$
$$SQ^2 = 0{,}999349$$

Based on these calculations, the SQ^2 value is 0.999349, indicating that the model exhibits strong predictive relevance. This conclusion aligns with the value of $Q^2 = 1 - SSE/SSO$, which also yields a value greater than zero. The blindfolding procedure applied to the research model confirms that the predictive relevance value (Q^2) for the latent variables exceeds zero.

Table6. Predictive Relevance Based on Blindfolding Results

Variable	SSO	SSE	Q^2 = 1-SSE/SSO
Personal Life Satisfaction	225.000	149.025	0.338
Social Life Satisfaction	300.000	179.607	0.401
Life Satisfaction	750.000	633.311	0.156
Feelings	300.000	166.191	0.446
Meaning of Life	375.000	236.637	0.369
Happiness	1200.000	1200.000	0.000

Source: Primary Data, processed 2021

The predictive relevance values (Q^2) for the life satisfaction variable, feelings, and meaning of life are 0.156, 0.446, and 0.369, respectively, indicating that this research model demonstrates strong predictive relevance.

To assess the overall quality of the model, the Goodness of Fit (GoF) value can be calculated. The GoF value serves as a comprehensive measure to validate the combined performance of both the measurement and structural models. It ranges from 0 to 1, with thresholds of 0.1 (small), 0.25 (medium), and 0.36 (large) indicating varying levels of fit (Haryono, 2017). The formula for calculating the Goodness of Fit (GoF) value is as follows:

$$GoF = \sqrt{\overline{AVE} \times \overline{R^2}}$$

$\overline{AVE}$ is the average of the AVE values
$\overline{R^2}$ is the average of the R^2 values

The GoF value in this study is as follows:

$$GoF = \sqrt{\overline{AVE} \times \overline{R^2}}$$
$$GoF = \sqrt{0{,}4984 \times 0{,}7512}$$
$$GoF = 0{,}6118$$

The Goodness of Fit (GoF) value was calculated to be 0.6118, indicating a large effect size. This result suggests that the model is well-suited and demonstrates strong explanatory power for the data.

DISCUSSIONS

The Role of Indicators in Measuring Happiness Levels

This study employs 21 indicators to assess the level of happiness, with 19 sourced from the Central Bureau of Statistics and 2 from the Oxford Happiness Questionnaire (OHQ). These indicators have been validated and tested for reliability by both institutions. Testing was conducted to ensure the indicators' applicability and accuracy when applied to respondents from layer and broiler farming backgrounds. The results identified 16 indicators as both valid and reliable, providing an effective representation of each dimension. Based on these tests, the valid and reliable indicators yield loading factor values that meet the required standards. The following section outlines the contribution of each indicator to the happiness index.

Table 7. Weights of Life Happiness Indicators

Dimension	Sub Dimension	Indicator	Weights (Wi)
Life Satisfaction	Personal Life Satisfaction	1. Education and skills	0.782
		2. Occupation/ business/ main activity	0.780
		3. Health	0.632
	Social Life Satisfaction	4. Family harmony	0.735
		5. Availability of free time	0.757
		6. Social relationship	0.754
		7. Security conditions	0.584
Feelings		8. Feelings of pleasure/ cheerfulness/ happiness	0.716
		9. Feeling not depressed	0.793
		10. Feeling optimistic	0.867
		11. Feeling of empathy	0.570
Meaning of life		12. Independence	0.828
		13. Mastery of the environment	0.815
		14. Self-development	0.598
		15. Positive relationships with others	0.615
		16. Life purpose	0.605

Source: Primary Data, processed 2021

Dimensions of Life Satisfaction

The life satisfaction dimension comprises two sub-dimensions: personal life satisfaction and social life satisfaction. Indicator development considers individuals with stable physical and mental conditions that enable them to perform daily activities. Several indicators constitute the personal life satisfaction sub-dimension.

Table 8. Average of Personal Life Satisfaction Sub-Dimensions

Indicator	Score	Description
Education and Skills	3.84	Moderately satisfied
Employment	3.63	Moderately satisfied
Health	3.96	Moderately satisfied

Source: Primary Data, processed 2021

The health indicator, with a value of 3.96, is the most significant factor affecting personal life satisfaction among laying hen and broiler chicken farmers in Malang Regency. This finding aligns with Sutawi et al. (2020), who emphasized that health is essential for life satisfaction, influencing farmers' productivity and farm management capabilities. Farmers report satisfaction with their health and maintain it through regular exercise, dietary adjustments, adequate rest, and vitamin intake. In addition, they receive information on Covid-19 and adhere to health protocols, recognizing the importance of these measures to prevent infection. Regular health facility visits also support farmers' well-being.

The education and skills indicator scored 3.84, reflecting farmers' satisfaction with their education and skill levels. Farmers actively seek information to increase their knowledge, consistent with Singh et al. (2002), who found that poultry farmers gain substantial skills and knowledge through training, enhancing their confidence in managing poultry farms. The job satisfaction indicator scored 3.63, with farmers expressing moderate satisfaction with their work during the Covid-19 pandemic, reporting that their income has generally met family needs. This outcome contrasts with findings by Balogun (2020) and Cavalli et al. (2020), who observed that Covid-19 led to job dissatisfaction among farmers due to mobility restrictions, market closures, and reduced demand. Despite pandemic-related losses, farmers reported enjoying their work and continued farming activities. The social life satisfaction sub-dimension includes indicators that reflect the social well-being of farmers.

Table 9. Average of Social Life Satisfaction Sub-Dimensions

Indicator	Score	Description
Family harmony	4.32	Satisfied
Availability of free time	3.68	Moderately satisfied
Social relationships	4.20	Satisfied
Security	5.06	Very satisfied

Source: Primary Data, processed 2021

The study results indicate that farmers experience high satisfaction with neighborhood security, scoring 5.06, as they feel safe and have not been recent victims of crime. This finding aligns with Grouh and Andjomshoaa (2018), who emphasize that security is crucial for housing satisfaction, particularly among low-income families. Family harmony also contributes positively to farmers' satisfaction, reflected by a score of 4.32. This aligns with Doré et al. (2019), who suggest that family dynamics, including interactions with animals and communication patterns, influence family relationships. Farmers report positive interactions and mutual respect among family members, creating a harmonious environment free from conflict.

Farmers' social relationships within their communities are also satisfactory, with an indicator score of 4.20. Factors such as social ties, community attachment, and environmental quality impact residential satisfaction, as noted by Cope et al. (2022) and Gu and Kim (2023). Despite the Covid-19 pandemic, farmers maintain social connections with livestock groups while adhering to health protocols and trust community leaders' decisions. Living in a diverse environment fosters tolerance, and farmers actively participate in social activities and assist neighbors in need.

Finally, farmers show moderate satisfaction with leisure time availability, indicated by a score of 3.68. They report adequate time for rest, equipment maintenance, sports, socializing, and hobbies, though balancing work and personal activities can be challenging.

Feeling Dimension

The feeling dimension includes indicators such as happiness, freedom from depression, optimism, and empathy. Farmers report satisfaction in this dimension, with a score of 4.70, expressing happiness in their farming lives. Both before and during the Covid-19 pandemic, farmers maintained a positive outlook, finding fulfillment in their poultry business due to the associated benefits. Sutawi et al. (2020) support this, indicating that poultry farming offers significant growth potential. Most farmers do not feel pressured in their daily lives, with many earning above the minimum wage in Malang Regency and supplementing their income with additional jobs, which reduces financial stress.

Farmers demonstrate confidence and optimism about future opportunities, consistent with Hernanto et al. (2020), who found that optimism regarding market opportunities strengthens business resilience. Farmers remain committed

to supporting their families, working diligently despite challenges posed by the Covid-19 pandemic. They view their achievements as the product of hard work.

Furthermore, farmers exhibit empathy, showing warmth and care for those around them. They believe in supporting community members facing difficulties. This perspective enables farmers to navigate daily life with low stress, as they accept outcomes sincerely, even when events do not align with their plans.

Tabel 10. Average of Feeling Dimension

Indicator	Score	Description
Feeling of pleasure	4.70	Satisfied
Feeling of non-depressed	4.20	Satisfied
Feeling of optimism	4.68	Satisfied
Feeling of empathy	4.61	Satisfied

Source: Primary Data, processed 2021

Farmers' life happiness is influenced by several routine habits, particularly worship practices such as charity and almsgiving, which contribute to peace of mind and overall happiness. This aligns with findings by Mohseni and Ahmadi Bighash (2020), who assert that charitable acts and regular worship, including giving and prayer, positively impact mental health and happiness. Farmers practice almsgiving as an expression of gratitude for their sustenance and supporting others. Farmers who routinely give alms tend to experience a more fulfilled life, characterized not by wealth but by the ability to meet daily needs.

Dimensions of the Meaning of Life

The dimension of meaning in life reflects an individual's ability to interpret and create value in their own life, contributing to a sense of happiness. Laying hen and broiler chicken farmers in Malang Regency demonstrate a capacity for independent decision-making. This finding aligns with Pakage et al. (2023), which emphasizes that access to education and information empowers farmers to make informed and autonomous choices about their farming practices. Farmers report confidence in resolving issues by making appropriate decisions without external influence, fostering a sense of control and comfort in their work environment. This sense of comfort further enhances their confidence in managing poultry farming activities. Farmers also feel that they contribute to others' well-being by supporting neighbors in need. Consistently striving to develop their potential, most farmers actively engage in enhancing their skills, knowledge, and insights, aiming to optimize their current business efforts.

Table 11. Average of Dimensions of the Meaning of Life

Indicator	Score	Description
Self-reliance	4.80	Happy
Environmental mastery	4.76	Happy
Self-development	4.45	Happy
Positive relationships with others	4.51	Happy
Life purpose	4,.76	Happy

Source: Primary Data, processed 2021

Farmers' happiness levels are structured around the dimensions of life satisfaction, feelings, and life meaning. Analysis of 75 respondents, including both layer and broiler farmers in Malang Regency, revealed an overall happiness level of 4.37.

Table 12. Life Happiness Index of Chicken Farmers in Malang Regency

Index	Score	Description
Life satisfaction	4.06	Happy
Feelings	4.54	Happy
Meaning of life	4.67	Happy
Happiness of farmer's life	4.37	Happy

Source: Primary Data, processed 2021

The findings indicate that laying hen and broiler chicken farmers in Malang Regency experience happiness across the dimensions of life satisfaction, emotional well-being, and life meaning. Farmers report satisfaction with their education, work, and health. They actively seek information and knowledge to address challenges and participate in training and counseling activities, aligning with findings by Sinaga et al. (2022) and Singh et al. (2022), which highlight that poultry farmers enhance their skills and confidence in farm management through training

programs. The study shows an overall happiness level of 4.33 for laying hen farmers and 4.39 for broiler chicken farmers.

Table 13. Level of Happiness in the Life of Laying Hen and Broiler Chicken Farmers in Malang Regency

Index	Broiler Chicken Farmers		Laying Hen Farmers	
	Score	Description	Score	Description
Life satisfaction	4,05	Happy	4,08	Happy
Feelings	4,50	Happy	4,58	Happy
Meaning of life	4,59	Happy	4,69	Happy
Happiness of farmer's life	4,33	Happy	4,39	Happy

Source: Primary Data, processed 2021

The happiness of laying hen and broiler farmers falls within the "happy" category, as they earn sufficient income to support their families' daily needs. On average, farmers' incomes cover household necessities and ensure business continuity, even with modest lifestyles (Ibrahim, 2021; Khoerudin, 2019). Study results indicate that farmers find the farm environment pleasant and feel that their income adequately reflects their effort in terms of time and labor. Farmers report enthusiasm for their work and maintain optimism for the future. These positive factors contribute to their happiness and gratitude in their farming roles, helping them find meaning and establish clear life goals. This sense of well-being persists, even throughout the Covid-19 pandemic.

Happiness Level of Farmers by Business Scale

The Mann-Whitney Test was employed to test the hypothesis regarding differences in happiness levels among laying hen and broiler chicken farmers in Malang Regency, based on livestock ownership size during the Covid-19 pandemic. The decision-making criterion relies on the probability value and Z score, as follows:
If Z calculated < Z critical and the significance level > 0.05, then H_0 is accepted.
If Z calculated > Z critical and the significance level < 0.05, then H_0 is rejected.

The hypotheses tested in this study were:

H_0 = No significant difference exists in happiness levels of laying hen and broiler chicken farmers based on livestock ownership size.
H_1 = A significant difference exists in happiness levels of laying hen and broiler chicken farmers based on livestock ownership size.

Results from the Mann-Whitney Test indicated a significance level of 0.451 > 0.05 and a Z score of 0.753 < 1.96, supporting H_0.

Tabel 14. Output of *Mann-Whitney Test*

	Happiness Level
Mann-Whitney U	631.000
Wilcoxon W	1297.000
Z	-0.753
Asymp. Sig (2-tailed)	0.451

Source: Primary Data, processed 2021

The findings indicate that H0 is accepted, suggesting no significant difference in happiness levels among laying hen and broiler chicken farmers based on livestock ownership in Malang Regency. Livestock ownership scale does not directly impact farmer happiness. Rather, farmer happiness is determined by dimensions of life satisfaction, feelings, and life meaning. Farmers in this study successfully meet essential human needs, including physiological needs, security, social connections, esteem, and self-actualization. Additional factors contributing to happiness include current health status, family harmony, adequate leisure time, a supportive social life, a sense of security in their living environment, and an optimistic outlook for the future.

CONCLUSION

Sixteen valid indicators effectively represent the happiness index for laying hen and broiler chicken farmers in Malang Regency during the Covid-19 pandemic. The happiness level for these farmers falls within the "happy" category, scoring an average of 4.37. Specifically, laying hen farmers reported a happiness level of 4.33, while broiler

chicken farmers reported 4.39, both categorized as "happy." No significant differences in happiness levels were observed between farmers with livestock holdings below 5,000 and those above 5,000 during this period.

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