International Research Journal of Multidisciplinary Scope (IRJMS), 2026;7(3):1621-1635

Original Article | ISSN (O): 2582-631X DOI:10.47857/irjms.2026.v07i03.010097

Factors Influencing the Management of Swiftlet Nest Tax: Evidence from Kutai Kartanegara Regency, East Kalimantan, Indonesia

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Abstract

Swiftlet nests have comparatively high export values, making them a viable strategic item for corporations. This trend has inspired many local communities and businesspeople to construct swiftlet dwellings, both huge and tiny. In addition to strengthening the local economy, this development raises Kutai Kartanegara Regency's initial regional revenue through tax collection. This study aims to analyze the contributing actors to the management of the swiftlet nest tax in Muara Kaman Subdistrict, Kutai Kartanegara Regency, East Kalimantan, Indonesia. Primary data were collected through interviews with 69 people using a questionnaire guide. Data analysis was done utilising the Structural Partial Least Square Equation Modelling approach in the SmartPLS version 4.0. The study's findings are as follows: tax penalties imposed on swiftlet's nest taxpayers have a positive and significant impact on tax compliance; service quality has a positive and significant impact on taxpayer compliance; taxpayer knowledge and understanding have a negative and significant impact on taxpayer compliance; and taxpayer awareness has a positive and significant impact on taxpayer compliance. This study recommended that the government carry out a more intensive campaign about tax obligations to business actors of swiftlet nest, provide intensive guidance to swallow nest enterprises, enforce strict but fair sanctions to encourage taxpayer compliance, improve the quality of tax services, strengthen collaborations between local governments and swiftlet nest business actors, and this study's results can be used as a basis for future bird's nest tax management policies that are more efficient and effective.

Keywords: Service Quality, Taxpayer Awareness, Taxpayer Compliance, Taxpayer Knowledge, Tax Sanctions.

Introduction

Regional autonomy represents a significant milestone in the administration of government in Indonesia, granting regional governments the authority to regulate and manage affairs in accordance with the specific needs and potential of their respective regions. A fundamental pillar in ensuring the success of this autonomy is the capacity of a region to generate Regional Original Income (PAD) independently through the management of economic potentials, as mandated by the Regional Taxes and Levies Law Number 28 of 2009. The strengthening of PAD aims to reduce dependence on central government transfers, with the swiftlet nest tax serving as a vital instrument for achieving such fiscal independence (1). The Kutai Karta Negara Regency Government has responded to this opportunity by issuing Regional Regulation Number 1 of 2024, which governs various regional taxes, including the swiftlet nest tax. Geographically and ecologically, the Kutai Karta Negara region is highly conducive to swiftlet cultivation due to its warm and humid climate, the abundance of natural food sources, and a supportive landscape. These factors have triggered a rapid expansion of the swiftlet nest industry across various districts in recent years (2). Swiftlet nests possess an exceptionally high economic value in both domestic and global markets, where they are highly sought after as raw materials for premium food and cosmetic ingredients due to their perceived health benefits. Export prices, which can command several million rupiah per kilogram, serve as a lucrative incentive for local entrepreneurs to construct swiftlet houses on various scales. Theoretically, these flourishing economic activities should provide a significant contribution to *PAD* through the collection of taxes. Whilst the sector possesses significant potential,

(Received 13th January 2026; Accepted 15th July 2026; Published 27th July 2026)

the actual realisation of swiftlet nest tax revenue often remains low and frequently falls short of established targets (3). In Kutai Karta Negara, although numerous swiftlet-rearing enterprises are operational, the number of businesses that are both formally registered and tax-compliant remains disproportionately small. The primary obstacles hindering optimal revenue include low taxpayer awareness, inadequate supervision, and limited business data collection regarding these enterprises.

Literature Review

The potential of Natural Resources can be defined as the capacity of a region to generate economic value and social benefits through the optimal, sustainable, and regulated utilization of its natural resources. Law Number 32 of 2009 concerning the Environmental Protection and Management stipulates those natural resources include biotic and abiotic components that can be utilized for human welfare while maintaining environmental sustainability. The potential of natural resources plays a strategic role in supporting regional fiscal independence, as their existence can serve as a significant source of locally generated revenue.

Swiftlet nests are produced by, which commonly inhabit limestone caves or man-made structures. Swiftlet nests are valuable export commodities, and Indonesia has exported them to 21 countries over the past five years. In fact, Indonesia is one of the largest suppliers of swiftlet nests in the world, contributing to 80 percent of the total global output. The other 10-20 percent is exported by Malaysia, Thailand, Vietnam, and other Southeast Asian countries. The primary export destination for Indonesian swallow nests is Hong Kong (4).

One such source of locally generated income is swallowing nests, generating income to strengthen regional fiscal capacity without relying too much on central government funds. Due to barriers including low taxpayer knowledge, lax oversight, and insufficient data collection on swallow nest enterprises, tax revenue realisation is still low despite the significant potential for swallow nest taxes. This shows that even though natural resources have a high economic value, it is challenging to maximise this potential in the absence of appropriate.

According to earlier studies, the swiftlet's nest tax's contribution to regional original income (PAD) is still subpar because of taxpayer resistance and evasion, as well as lax law enforcement and regulatory socialisation (5). Meanwhile, other statements emphasize the importance of wallet business development (6). Also, low public awareness, lack of understanding of regulations, and limited competence of tax officers in guiding business actors have worsened this situation (7). In order to maximise the potential of swallow's nest tax, it is also important to take into account local economic trends, shifts in key industries, and the capacity of local governments to locate and oversee revenue sources (8).

The management of the swiftlet nest tax depends on available resources as well as technical and non-technical factors that generate revenues. These factors include taxpayer knowledge and understanding, low awareness and willingness to pay taxes, minimum tax sanctions for tax evaders or abusers, and poor service quality (9-16). Various research findings have reported that a good management of swallow nest tax contributes significantly to locally generated revenue (17).

Conceptual Framework of the Study

We developed a conceptual framework based on theories and empirical studies on the relationship between knowledge, awareness, tax sanctions, and service quality with taxpayer compliance as shown in Figure 1. This study employed several variables as follows:

a) **Taxpayer Knowledge and Understanding (X1):** The indicators were awareness of the function of taxes (X11), understanding the procedures of tax payment (X12), knowledge of tax-related information (X13), ability to complete the tax return (X15), awareness of tax payment deadlines (X16), knowledge of designated locations for tax payment (X17), awareness that taxes constitute the largest source of state revenue (X18).
b) **Taxpayer Awareness (X2):** The indicators were awareness that paying swallow nest tax means contributing to the regional development (X22), voluntary payment of swiftlet nest tax (X23), understanding that delaying tax payment causes significant losses to the state (X24), awareness of the function of taxes (X25), awareness of mandatory and regulated taxes (X26).
c) **Tax Sanctions (X3):** The indicators were awareness that sanctions are an educational tool for taxpayers (X32), sanctions must be

enforced firmly (X33), sanctions are counted based on outstanding payment (X34), tax sanctions must be imposed strictly (X35), sanctions must be applied fairly (X36), sanctions have been enforced to swallow nest taxpayers (X37), criminal sanctions are imposed on tax regulation violators (X38), administrative sanctions are imposed on tax regulation violators (X39), sanctions for tax violations may be subject to negotiation (X310).

d) **Service Quality (X4):** It included the adequacy of available tax payment facilities (X41), tax officers' proficiency in using applied technologies (X42), friendliness and courtesy of tax officers toward taxpayers (X43), responsiveness and assistance provided to taxpayers experiencing difficulties (X44), speed and satisfaction level of tax services (X45), clarity and comprehensibility of information and explanations provided by tax officers (X46), guidance provided by officers without exerting influence (X47), fairness and impartiality of tax officers (X48), perceived benefits of tax service quality (X49), provision of socialization programs on the importance of tax compliance (X410).

e) **Taxpayer Compliance (Y):** The indicators included the possession of a Taxpayer Identification Number to pay swallow nest tax (Y1), timely payment of swiftlet nest tax (Y2), timely tax payment realization (Y3), accurate calculation or payable tax as regulated (Y4), compliance in paying tax arrears (Y5), bookkeeping or record-keeping for swallow nest tax payment (Y6), timely submission of the Tax Return to the Tax Office (Y7), monitoring by the Tax Service Office to ensure compliance (Y8).

Figure 1 shows the conceptual framework in order to give a clearer understanding of the research concept.

Research Hypotheses

The conceptual framework serves as the foundation for the following research hypotheses:

a) Taxpayer knowledge and comprehension have a favourable and considerable impact on tax compliance.
b) Taxpayer knowledge has a good and considerable impact on tax compliance.
c) Tax penalties significantly and favourably affect tax compliance.
d) Service quality has a good and considerable impact on tax compliance.

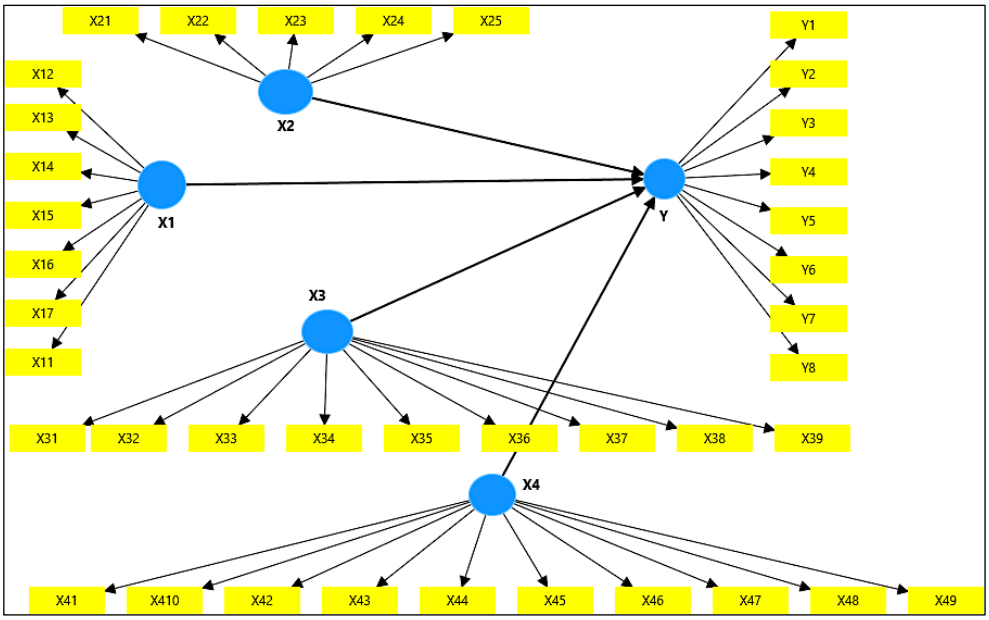

Figure 1: Conceptual Framework of This Study

Methodology

This study used an inferential statistical approach and a quantitative research strategy. The purpose of the planned and organised research design was to find answers to the study questions (18). The people who owned swiftlet nests in Muara Kaman District made up the study's population. In this study, a purposively selected sample of 69 individuals was used. The community that owned

swiftlet nests was taken into account because they had comparable business traits. Similarly, Muara Kaman District, which includes five villages: Muara Kaman Ulu, Muara Kaman Ilir, Cipari Makmur, Benua Puhun, and Rantau Hempang, had the highest number of registered swiftlet nest owners, according to data from the Regional Revenue Agency of Kutai Kartanegara Regency. The Muara Kaman District's five villages have enormous potential for growing swiftlet 's nest enterprises. The researchers intended to present a more accurate image of the real situation on the ground by choosing this site. As indicated in Table 1, Google Earth Pro was used to obtain the geographic coordinates of the communities where this study was conducted.

Table 1: Geographic Coordinates of the Research Site

District /Village	Latitude	Longitude
Muara Kaman District	0°39′0" N – 0°18′ S	116°28′0" E – 117°09′0" E
Muara Kaman Ulu Village	0° 8'50.56"S	116°43'48.30"E
Muara Kaman Ilir Village	0° 9'35.80"S	116°43'19.06"E
Cipari Makmur Village	0° 9'42.19"S	116°55'45.66"E
Benua Puhun Village	0°16'39.61"S	116°47'50.16"E
Rantau Hempang Village	0°12'45.99"S	116°47'7.92"E

Table 2: Description of Respondent Characteristics

Respondent Characteristics	Indicator					
	1	**2**	**3**	**4**	**5**	**Total**
Age (Years)	< 25	25-34	35-44	45-54	≥ 55	
f	2	6	13	13	35	69
%	2.9	8.7	18.8	18.8	50.7	100
Education	Elementary School	Junior High School	High School	Bachelor	Postgraduate	
f	25	16	16	12	0	69
%	36.2	23.2	23.2	17.4	0	100
Number of family dependents (people)	≤ 1	1--2	3--4	5--6	≥ 7	
f	2	19	38	6	4	69
%	2.9	27.5	55.1	8.7	5.8	100
Length of farming of Swift's nest (years)	≤ 5	6--10	11--15	16--20	>20	
f	12	35	18	4	0	69
%	17.4	50.7	26.1	5.8	0	100

Note: f = Frequency, % = Percentage.

Primary and secondary data were gathered by observation methods, questionnaire-based interviews, and documentation. A questionnaire was used to gather primary data. Respondents were the target audience for the questionnaire. Table 2 displays the characteristics of the respondents.

Using the SmartPLS version 4.0 tool, the Structural Equation SEM-PLS method was used to analyse the data (19, 20). This study used a small sample size of 69 people. Therefore, SEM PLS was used for data analysis. PLS is a reliable tool for testing models for small sample sizes (20).

AI Assistance Disclosure

The authors used AI tools such as BrainTex.ai to improve the clarity and presentation of the manuscript, and QuillBot to correct grammar and rephrase sentences. All significant concepts, research methods, analyses, and findings are wholly original to the authors, who also bear full responsibility for the accuracy and integrity of this study.

Results

Evaluation of Measurement Model

The loading factor, Cronbach's Alpha and Rho A values, Average Variance Extracted (AVE), composite reliability, and cross-loading were used in the construct validity and reliability tests. The values of these measures are shown in Tables 3 and 4. By looking at the loading factor values and the AVE values (convergent validity test), the validity tests assessed the latent variables. The items are deemed legitimate if the AVE value is greater than 0.50 and the outer loading value is

larger than 0.70 (21). Based on the algorithm test results using SmartPLS version 4, the Loading Factor (LF) values for all indicators were found to be valid as presented in Table 3. Furthermore, Table 3 shows that the AVE values are greater than 0.50, indicating that the convergent validity of the variables was accepted. To make sure that every structure in the latent model is empirically different from other variables, the subsequent assessment concentrated on discriminant validity. The Heterotrait Monotrait Ratio (HTMT), cross-loading, and the Fornell-Larcker criterion were used in this study to evaluate discriminant validity. The examination of discriminant validity in accordance with the Fornell–Larcker criterion was satisfied based on the findings shown in Table 4.

Table 3: Measurement Model

Variable	Meas. items	Indicator	LF	Cronbach's Alpha	Rho a	CR	AVE
X1	X11 <- X1	X11	0.931	0.945	0.954	0.955	0.750
	X12 <- X1	X12	0.860				
	X13 <- X1	X13	0.817				
	X14 <- X1	X14	0.861				
	X15 <- X1	X15	0.903				
	X16 <- X1	X16	0.860				
X2	X21 <- X2	X21	0.793	0.868	0.870	0.904	0.654
	X22 <- X2	X22	0.801				
	X23 <- X2	X23	0.810				
	X24 <- X2	X24	0.799				
	X25 <- X2	X25	0.841				
X3	X31 <- X3	X31	0.913	0.976	0.977	0.980	0.842
	X32 <- X3	X32	0.914				
	X33 <- X3	X33	0.934				
	X34 <- X3	X34	0.924				
	X35 <- X3	X35	0.931				
	X36 <- X3	X36	0.955				
	X37 <- X3	X37	0.948				
	X38 <- X3	X38	0.943				
	X39 <- X3	X39	0.787				
X4	X41 <- X4	X41	0.801	0.961	0.968	0.966	0.739
	X42 <- X4	X42	0.851				
	X43 <- X4	X43	0.767				
	X44 <- X4	X44	0.935				
	X45 <- X4	X45	0.822				
	X46 <- X4	X46	0.914				
	X47 <- X4	X47	0.917				
	X48 <- X4	X48	0.927				
	X49 <- X4	X49	0.881				
	X410 <- X4	X410	0.756				
Y	Y1 <- Y	Y1	0.762	0.954	0.961	0.962	0.761
	Y2 <- Y	Y2	0.938				
	Y3 <- Y	Y3	0.845				
	Y4 <- Y	Y4	0.912				
	Y5 <- Y	Y5	0.890				
	Y6 <- Y	Y6	0.932				
	Y7 <- Y	Y7	0.754				
	Y8 <- Y	Y8	0.923				

Note: LF = Loading Factor, Rho a = Rho A values, CR = Composite Reliability, AVE = Average Variance Extracted.

Table 4: Discriminant validity

	X1	X2	X3	X4	Y
Fornell-Larcker criterion					
X1	**0.866**				
X2	0.754	**0.809**			
X3	0.421	0.304	**0.918**		
X4	0.398	0.360	0.683	**0.860**	
Y	0.382	0.477	0.793	0.777	**0.872**
HTMT					
X1					
X2	**0.833**				
X3	0.431	**0.331**			
X4	0.437	0.402	**0.701**		
Y	0.383	0.515	0.812	**0.783**	

Note: HTMT = Heterotrait Monotrait Ratio

All variable pairs in Table 4 have HTMT values less than 0.90, demonstrating that discriminant validity was satisfied. Additionally, cross-loading analysis was used to examine discriminant validity at the measurement item level. The findings demonstrated that the correlation between each measurement item and its corresponding construction is stronger than that between other constructions. Consequently, every variable and indicator satisfied the requirements for discriminant validity.

To determine if the instruments have consistently and accurately measured the hidden variables, a reliability test was carried out. Cronbach's Alpha, Composite Reliability (CR), and Rho A values were employed in the reliability test. CR > 0.70, Cronbach's Alpha > 0.70, and Rho A > 0.70 are the evaluation criteria. All of the variables analysed in this study satisfied the necessary reliability standards, according to the data analysis results using SmartPLS version 4.0 shown in Table 3.

Structural Model Evaluation

A multicollinearity test is used to evaluate the structural model, specifically examining the inner VIF value using the VIF < 5 criterion. The VIF value in Table 3 is less than 5. This means that there is no multicollinearity problem. The path coefficient of X3 (Tax Sanctions) on Y (Taxpayer Compliance) is the most dominant, with a value of 0.549, and the effect is statistically significant at p value < 0.05 (0.000 < 0.05). Table 5 further indicates that the other variables also have significant effects on Y, except for the effect of X1 (Knowledge) on Y (Taxpayer Compliance), which was found to be nonsignificant.

Table 5: Structural Model Evaluation

Hypothesis	Path Coefficient	p value	95 % Path Coefficient		t-statistics	VIF	f^2	R^2	Q^2
			2.5%	97.5%					
Y								0.808	**0.678**
X1 -> Y	-0.282	0.065	-0.534	0.072	1.843	3.410	0.121		
X2 -> Y	0.363	0.012	0.035	0.595	2.515	2.774	0.248		
X3 -> Y	0.549	0.000	0.273	0.711	4.819	2.240	0.703		
X4 -> Y	0.370	0.000	0.247	0.607	4.103	2.332	0.307		

Note: VIF = Variance Inflation Factor, f^2 = f-square, R^2 = Coefficient of Determination, Q^2 = Q-square.

With the criteria of 0.02 small, 0.15 medium, and 0.35 large, we employed the f-square value (f^2) to evaluate the magnitude of the direct influence. The f-square (f^2) value was used to measure the extent of the moderating effect using three distinct thresholds: 0.005 for small, 0.01 for medium, and 0.025 for big (22). Table 5 shows that the f-square values of the effects of X1, X2, X3, and X4 on Y showed small, medium, and large compositions. The 95% confidence interval test was interpreted in SmartPLS, examining the lower bound and upper bound values of the interval. The results showed that the effect of X1 on Y lay between -0.534 and 0.072. This implies that if X1 is increased in various ways, its effect on Y may increase up to 0.072. The structural model illustrates the interactions between a study's latent variables. One of the approaches to assess the internal

quality of the model is by evaluating the R^2 value. According to Chin, the criteria for model fit based on R is R^2= 0.67 indicates a "substantial" model, R^2 = 0.30 indicates a "moderate" model, and R^2= 0.19 indicates a "weak" model (23). Based on the results presented in Table 5, the R^2 value of 0.808 demonstrates that the constructed model falls into the substantial category.

Table 6: Values of Q^2, RMSE and MAE

Indicator Y	Q^2predict	PLS-SEM_RMSE	PLS-SEM_MAE	LM_RMSE	LM_MAE
Y1	0.216	0.911	0.577	2.090	1.001
Y2	0.611	0.582	0.420	0.985	0.468
Y3	0.323	0.780	0.514	1.900	0.957
Y4	0.580	0.539	0.386	1.124	0.557
Y5	0.450	0.594	0.441	0.755	0.400
Y6	0.598	0.499	0.355	1.263	0.626
Y7	0.524	0.694	0.438	1.351	0.620
Y8	0.660	0.483	0.336	1.295	0.668

Note: Q^2 = Q-square.

How well the structural model can recreate the observed values in the data is shown by the Q-square (Q^2) in SmartPLS. Stated differently, PLS Predict functions as a model validation tool to demonstrate the degree of predictive potential of the suggested PLS model. The model has good predictive relevance because, as Table 6 demonstrates, the Q^2 value is bigger than zero. Comparing the RMSE and MAE values of PLS with those of LM (linear regression) is another method of assessing PLS Predict. If most of the values are lower, the PLS model has a medium predictive power; if the values are lower, it has a greater predictive capacity (22).

Robustness Check

This study's robustness checks looked at the model's endogeneity and linearity. Linearity was assessed based on the quadratic effect if it is not significant, the model's linearity assumption is fulfilled (robust), and vice versa. The test results indicated that the p values of the quadratic effects of X1, X2, X3, and X4 on Y ($p > 0.05$) were not significant, with QE > 0.05 shown in Table 7. Only the p value of X1 on Y was less than 0.05. The linearity assumption of the model is satisfied (robust) since the model is linear based on the data in Table 7.

The evaluation of endogeneity in PLS-SEM can be conducted using the Gaussian copula approach. Based on Table 7, the p values of GC (X1, X2, X3, and X4) showed that Y was greater than 0.05 (> 0.05). Therefore, there are no issues of linearity or endogeneity, and the model is considered robust.

Table 7: Robustness Check (Linearity and Endogeneity)

Linearity check	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	t statistics (|O/STDEV|)	p values
X1 -> Y	-0.102	-0.060	0.144	0.711	0.477
X2 -> Y	0.263	0.236	0.134	1.969	0.049
X3 -> Y	0.500	0.480	0.099	5.047	0.000
X4 -> Y	0.383	0.388	0.107	3.579	0.000
QE (X2 -> Y)	0.093	0.089	0.073	1.266	0.206
QE (X1 -> Y)	-0.217	-0.227	0.070	3.087	0.002
QE (X3 -> Y)	0.089	0.078	0.061	1.465	0.143
QE (X4 -> Y)	0.055	0.065	0.051	1.066	0.286
Endogeneity check					
GC (X1 -> Y)	0,359	0.328	0.487	0.737	0.461
GC (X2 -> Y)	-0,453	-0.090	0.521	0.870	0.384
GC (X3 -> Y)	-0,222	-0.036	0.603	0.368	0.713
GC (X4 -> Y)	-0,622	-0.370	0.386	1.611	0.107

Note: QE =quadratic effects, GC = Gaussian Copula.

Hypothesis Testing

In this study, a subsample of 5,000 people was used for hypothesis testing using the bootstrapping method. This study used a non-parametric methodology (bootstrapping), which is an alternative hypothesis testing method when the

sampling distribution of the data is uncertain, because PLS-SEM does not assume that the data are normally distributed. Standard errors and parameter estimates are obtained by repeatedly taking samples and returning them (resampling) p times, usually 5,000. There is a significant relationship between the variables if the p value is less than 0.05. The percentile technique or the Bias Corrected and Accelerated (BCA) approach can be used to choose the bootstrap method. The BCA method is recommended because, in some situations, non-normal data distributions may affect PLS estimates, resulting in peaked and skewed data distributions. However, by applying the BCA method, the confidence interval of the parameter estimates can be adjusted accordingly.

At an alpha level of 0.05, the t value employed in this investigation is 1.666. The p value can be used to evaluate significance in addition to the computed t value. The result is deemed significant if the p value is less than 0.05, and vice versa. The first hypothesis, that knowledge (X1) has a negative and insignificant effect on taxpayer compliance (Y), is rejected, as shown by the t statistic value in Table 5. This is demonstrated by the path coefficient value of -0.282, the higher p value than 0.05 (0.065 > 0.05), and the smaller computed t value than the crucial t value (1.843 < 1.966). The results of the other hypothesis tests show positive and significant effects as shown in Table 5.

Discussion

Analysis of the Effect of Taxpayer Knowledge and Understanding (X1) on Taxpayer Compliance (Y)

According to the study's findings, the p value is 0.065 (0.065 > 0.05), the t statistic value is 1.843 (1.843 < 1.966), and the path coefficient of the influence of X1 on Y is -0.282. As a result, taxpayer compliance (Y) was negatively and insignificantly impacted by the study's findings on taxpayer knowledge and understanding (X1). Therefore, it is impossible to accept the theory that taxpayer comprehension and knowledge have a beneficial impact on taxpayer compliance. The ability of a taxpayer to comprehend tax requirements, such as tax functions, payment procedures, reporting, and the legal ramifications of not fulfilling tax responsibilities, is conceptually referred to as taxpayer knowledge and comprehension (24, 25). Tax knowledge is seen in tax compliance theory as a component that can raise taxpayer awareness and compliance. A taxpayer's level of compliance in meeting their tax obligations increases with their level of understanding (26). The study's findings, however, indicate a different situation in which taxpayer comprehension and knowledge have not been able to considerably raise taxpayer compliance.

The study's findings also show that taxpayer comprehension and knowledge are at a neutral to moderate level. Taxpayer compliance will be impacted by this intermediate level of knowledge and comprehension. According to these results, taxpayer compliance with swallow nest enterprises is either negligible or nonexistent. Swiftlet nest farmers have a basic understanding of their tax obligations. However, the farmers do not have a sufficiently strong motivation to comply with these obligations. This phenomenon may be due to the lack of effective socialization or clear information regarding the benefits of tax compliance for the community and the state. For example, if taxpayers fail to see the positive impact of paying taxes, such as infrastructure development or improved public services, then farmers may feel that the obligation is not relevant to them. Therefore, it is necessary to enhance socialization in order to improve taxpayers' knowledge and understanding. Furthermore, the swallow farm's low production is contributing to the problem. Due to income constraints, taxpayers are unable to comply with their tax obligations.

The majority of respondents' answers, which were neutral or adequate about the degree of taxpayer awareness and understanding, also support this conclusion. This implies that there is inadequate motivation to urge farmers to comply with tax duties, even in the face of a basic comprehension of them. This could be because there hasn't been enough efficient outreach or clear information on the advantages of tax compliance for the state and the community. The benefits of paying taxes, such as the funding of improved public services or infrastructure development, are not visible to taxpayers.

The negative influence also indicates that, although negative taxpayers possess knowledge and understanding, it negatively affects farmers' compliance in paying taxes. However, if farmers lack motivation or awareness of the importance of

paying taxes, their compliance levels will remain low. This finding indicates that tax compliance among swallow nest farmers is either low or insignificant. Such ignorance should be a serious concern, especially considering the importance of taxes as a source of state revenue used to finance various development programs. Poor compliance may result in reduced state revenue and negatively affect the quality of public services. Therefore, we need to implement strategic measures to enhance taxpayers' knowledge and understanding through more intensive and targeted socialization. These results, however, are at odds with those of earlier studies that found that taxpayer compliance was positively and significantly impacted by knowledge level (16, 27-31).

Analysis of the Effect of Taxpayer Awareness (X2) on Taxpayer Compliance (Y)

The finding suggests that a rise in taxpayer awareness will inevitably result in a rise in taxpayer compliance. Conceptually, taxpayer awareness is the attitude and behavior of taxpayers based on an understanding of the importance of taxes for national development and public welfare (32). This knowledge demonstrates the taxpayer's intrinsic willingness to satisfy tax duties willingly without pressure. According to tax compliance theory, one of the key elements affecting the degree of taxpayer compliance in meeting their tax obligations is taxpayer knowledge. Farmers are aware that the taxes they pay will support healthcare, education, and infrastructure improvements, all of which will benefit the community as a whole. As for the effect of taxpayer awareness on taxpayer compliance. Table 3 displays a path coefficient of 0.363, a t statistic value of 2.515 (2.515 > 1.966), and a p value of 0.012 (0.012 < 0.05). According to the study's findings, there is a positive and significant relationship between taxpayer awareness and taxpayer compliance. This suggests that taxpayer compliance will rise in tandem with an increase in taxpayer awareness. The findings of respondent interviews, which indicated that taxpayer awareness tended to be positive, further supported this important influence. "Quite aware" was the most common answer. According to field observations and respondent interviews, taxpayers understand the significance of filing their taxes. In a similar vein, farmers who were interviewed stated that they are aware that the taxes they pay will go toward healthcare, education, and infrastructure improvements, all of which will help the community as a whole.

However, there are significant challenges faced by these farmers. One of the main issues is that the expected production is not achieved, which in turn makes it difficult for farmers to fulfill their tax obligations. Swiftlet-swallow farmers experience difficulties in accessing modern swiftlet-swallow farming technology. This shows a close relationship between swiftlet-swallow production and the ability to meet tax obligations. When production decreases, farmers' income also declines, making it very difficult to fulfill the tax obligations that should be paid. This situation reflects the reality faced by swiftlet nest farmers in Muara Kaman Subdistrict, and possibly in other districts as well. Although swiftlet-swallow farmers have the awareness to pay taxes, unfavorable economic conditions may hinder them from doing so. Therefore, it is important for the relevant institutions, both government and private sectors, to provide support to the farmers. For instance, by providing better swiftlet nest farming technology. With increased production, farmers will not only be able to fulfill their tax obligations but also contribute more to the national economy. Swiftlets are noted for being erratic creatures. The weather, the availability of food, and the surrounding environment all have an impact on their behaviour. Therefore, in order to give farmers more thorough support, the advice given by pertinent agencies needs to be improved. In addition to offering information, relevant organizations can serve as facilitators by helping to develop technologies that can boost output. Farmers can more accurately forecast the best time and strategy to draw swiftlets by using monitoring technologies to better understand the birds' migration patterns and behavior. Programs to raise taxpayer awareness and agricultural productivity may be more successful as a result of this collaboration between the public and private sectors.

The results of this study are consistent with earlier studies showing that taxpayer awareness has a favorable and significant impact on taxpayer compliance (9, 12, 13, 16, 33, 34). The conclusions of this study, however, are different from those of

another study that found no discernible impact of taxpayer awareness on taxpayer compliance (31).

Analysis of the Effect of Tax Sanctions (X3) on Taxpayer Compliance (Y)

The study's findings show that the impact of tax sanctions on taxpayer compliance has a path coefficient of 0.549, a t statistic value of 4.819 (4.819 > 1.966), and a significance level of α = 0.000 (0.000 < 0.05). This suggests that swiftlet-swallow nest taxpayers' tax compliance is positively and significantly impacted by the enforcement of tax punishments. Therefore, it is acknowledged that tax penalties improve taxpayer compliance. From a conceptual standpoint, tax sanctions are a legal tool that the government uses to motivate taxpayers to pay their taxes. Non-compliant taxpayers may be subject to administrative fines, interest, or criminal penalties. According to the theory of tax compliance, sanctions are a social control mechanism designed to have a deterrent impact, motivating taxpayers to pay their taxes on time and in compliance with applicable laws (35).

Higher levels of compliance are likely to result from tougher enforcement of tax penalties on taxpayers, according to the positive and significant effect. In theory, farmers usually fulfil their tax payment commitments. However, farmers are frequently unable to pay taxes due to the extremely low output of swiftlet swallow nests. Based on the results of the research conducted through interviews using a questionnaire, it was found that there has been a decline in production from year to year. In 2023, the average production of swiftlet swallow nests was 2.626 kg/year, while in 2024 the average production decreased to 2.543 kg/year. Furthermore, in 2025, during the period from January to June, the average production was recorded at 1.114 kg. The decline in production is influenced by various environmental and manage-rial factors in swiftlet-swallow farming. For instance, unstable temperatures and weather conditions make it difficult for swiftlets to adapt and feel secure in their habitat, which in turn disrupts their natural life cycle. Another finding obtained from the interviews indicates that respondents tend to be skeptical about tax sanctions, as the majority of farmers have not paid taxes as required, primarily because swiftlet swallow production is very low or cannot be relied upon.

To improve tax compliance among swiftlet-swallow nest farmers, a more holistic approach is required. The government, in this case the Department of Agriculture and Livestock of Kutai Kartanegara Regency, needs to consider providing incentives or assistance to farmers with low production levels. In other words, government intervention is necessary to support farmers in the swallow nest business. The investment to build swiftlet's houses is substantial. Therefore, we need to strengthen the government's role. The reality in the field at present shows that swiftlets seem unwilling to enter the facilities that have been prepared and appear to be migrating to other areas, leaving this region. Efforts by the government to increase swiftlet production can include adopting technology for swiftlet farming and providing training programs for farmers in managing swiftlet nest cultivation.

According to the study's findings, tax penalties significantly and favourably impact taxpayer compliance. Nonetheless, a variety of circumstances affect taxpayer compliance. One of the biggest challenges for farmers in meeting their tax requirements is the low production of swiftlet nests. Therefore, it is crucial that the authorities not only use fines as a regulatory tool but also give farmers the assistance they need to boost their production, it eventually leads to farmers paying their taxes. With a more comprehensive approach, it is expected that tax compliance among swiftlet nest farmers can increase significantly, which in turn will support both regional and national economies. This study's findings demonstrate a positive and significant impact of tax sanctions on taxpayer compliance.

The results of this study are consistent with other studies, which found that applying strict and unambiguous penalties can motivate people to pay their taxes on time (36, 37).

Taxpayers are more inclined to pay their taxes when they are aware that non-compliance may result in hefty fines. This study shows that in addition to being a kind of punishment, sanctions also encourage taxpayers to take greater initiative in meeting their commitments. Transparency is therefore essential when applying tax penalties (38). When taxpayers believe that the tax system is fair and that penalties are imposed evenly and without bias, they are more likely to comply. This implies that greater compliance may be a result of

faith in the tax system. In a similar vein, increasing taxpayer compliance also heavily depends on education regarding tax penalties (39). Incentives for taxpayers who comply must be offered in addition to tax penalties. It has also been suggested that a more favorable atmosphere for tax compliance can be produced by combining penalties for non-compliance with incentives for compliance (40).

Analysis of the Influence of Service Quality (X4) on Taxpayer Compliance (Y)

The path coefficient, which shows the impact of service quality on taxpayer compliance, is 0.370 based on the study findings shown in Table 3. This implies that raising the standard of tax services will result in more taxpayers paying their taxes on time. Additionally, the significant value demonstrating the impact of tax service quality on taxpayer compliance is 0.000 (0.000 < 0.05) at a 95% confidence level (α = 0.05), with t statistic value of 4.103 (4.103 > 1.966). This figure shows that the study's conclusions show a favourable and significant relationship between service quality and taxpayer compliance. The ability of tax officers and the tax service system to satisfy taxpayer needs through prompt, accurate, transparent, approachable, and simple-to-understand service is conceptually referred to as tax service quality. The interpersonal interactions between tax officers and taxpayers are also included in the concept of service quality. According to tax compliance theory, providing high-quality services can boost taxpayer comfort, trust, and satisfaction, which in turn promotes voluntary tax compliance (41).

The majority of respondents preferred to offer positive answers when asked about the quality of tax services. This evaluation takes into account both individual and group opinions, which may have an impact on total tax compliance. The majority of respondents rated the service as highly satisfactory, according to the survey. Additionally, most respondents said that the service quality was quite satisfactory. A number of farmers were reluctant and uneasy about paying their taxes. This resulted from a lack of comprehension. It was challenging for some farmers to comprehend how taxes were determined and their responsibilities since they had not done enough research on the subject. Despite the desire to pay taxes, this ambiguity frequently resulted in non-compliance. This was also brought on by the authorities' lack of public awareness initiatives.

Many farmers experience difficult economic conditions, and the tax burden is often considered an additional burden. This situation worsens because farmers lack the resources to obtain professional assistance and do not understand the taxation system. It is important to recognize that tax services encompass both the interpersonal relationships between tax officers and taxpayers as well as the technical elements involved. Farmers' dissatisfaction may increase if tax officers do not pay attention to or understand their situation. To improve tax compliance, a more comprehensive approach is needed that not only focuses on administrative aspects but also takes into account the needs and conditions of taxpayers. Better services, such as improved tax education and better communication between tax officers and taxpayers, can be a significant first step in increasing tax compliance among swiftlet-swallow nest farmers. Therefore, improving tax services must become a top priority to increase tax revenue and create better relations between the government and society. The findings of this study are consistent with the findings of previous studies that examined the influence of service quality on tax compliance (40, 42).

Conclusion

This study concludes that the effect of taxpayers' knowledge and comprehension (X1) on tax compliance (Y) is negative and not significant. This is indicated by the path coefficient of -0.282 for the effect of X1 on Y. Higher compliance is not always correlated with greater knowledge. Taxpayers may not feel pressured to pay their taxes, even if they are well-informed on the tax laws. The suggested hypothesis is rejected, according to the t statistic value of 1.843 (1.843 < 1.966) and the p value of 0.065 (0.065 > 0.05). This implies that tax compliance cannot be influenced solely by information.

The effect of taxpayers' awareness on tax compliance is positive and significant. The path coefficient of taxpayers' awareness on tax compliance is 0.363, indicating that higher awareness increases the likelihood of compliance. Taxpayers who recognize the importance of tax contributions for national development tend to comply more readily. This is further supported by

a t statistic of 2.515 (2.515 > 1.966) and a p value of 0.012 (0.012 < 0.05). Awareness can be fostered through various measures, such as effective tax socialization programs, which enhance public understanding of the benefits of taxation for collective welfare.

The effect of tax sanctions (X3) imposed on swiftlet house taxpayers on tax compliance (Y) is also positive and significant. The path coefficient of X3 on Y is 0.549, suggesting that strict sanctions encourage taxpayers to comply. The significance level, indicated by α = 0.000 (0.000 < 0.05), and a t statistic of 4.819 (4.819 > 1.966) confirm that sanctions have a significant impact on compliance. Clear and firm penalties for non-compliance, such as heavy fines or legal action, can create a strong deterrent effect. Accordingly, the implementation of appropriate sanctions can serve as an effective tool to enhance tax compliance.

The effect of service quality (X4) on tax compliance (Y) is also positive and significant. The path coefficient of X4 on Y is 0.370, indicating that improvements in tax service quality led to higher compliance. Furthermore, the significance at the 95% confidence level (α = 0.05) is 0.000 (0.000 < 0.05), and the t statistic is 4.103 (4.103 > 1.966), highlighting the crucial role of service quality. If tax officers provide clear and responsive explanations to taxpayers' inquiries, this can increase taxpayers' trust in the tax system. High-quality services create a supportive environment that encourages taxpayers to fulfill their tax obligations.

The practical implications of this research are the need for improved tax socialisation and education that is more effective, communicative, and easily understood by the public. Furthermore, the government and taxation institutions must raise taxpayer awareness through persuasive approaches, transparency in tax use, and ongoing outreach. To improve taxpayer discipline, tax sanctions must be implemented firmly, consistently, and fairly, while still considering the economic conditions of swiftlet farmers, who are affected by low business production. Tax services must also be a priority, with fast, responsive, friendly, and transparent service. Local governments must truly support swiftlet farmers through cultivation training, technical assistance, and business mentoring.

This study has a number of limitations, including the following: its cross-sectional technique and special focus on swiftlet nest growers in Muara Kaman District make it impossible to extrapolate the findings to other areas or industries. Furthermore, significant external variables that directly affect farmers' real income, like sharp drops in productivity brought on by weather and swiftlet movement, are not taken into account by the study's structural model. Additionally, it ignores other crucial factors like agricultural technology and public authority trust. Lastly, the scepticism of respondents who are experiencing diminishing harvests may lead to response bias when self-reported data is used through questionnaires.

We propose the following recommendations:

(a) The local government needs to conduct a more intensive campaign of tax obligations to swiftlet's business actors. This initiative can enhance taxpayers' knowledge, awareness, and motivation to comply with their tax obligations,
(b) The government, through the Department of Agriculture and Animal Husbandry of Kutai Kartanegara Regency, should provide intensive guidance for swallow nest farming businesses to increase production,
(c) Strict and fair sanctions must be imposed to encourage compliance. However, the government should give opportunities to taxpayers to make corrections if they have committed errors,
(d) The government should improve the quality of tax services. This can be achieved through training programs for tax officers to enhance their responsiveness and communication skills,
(e) Collaboration between local government and swiftlet nest entrepreneurs is essential. By involving all stakeholders, the policies can be better directed to the intended target,
(f) This research can serve as a foundation for formulating more effective and efficient policies in the management of swallow nest tax in the future.

Abbreviations

AVE: Average Variance Extracted, CR: Composite Reliability, GC: Gaussian Copula, HTMT: Heterotrait Monotrait Ratio, LF: Loading Factor, SEM-PLS: Structural Equation Modelling Partial Least Squares, VIF: Variance Inflation Factor.

Acknowledgement

For sponsoring this study, we are thankful to the head of the Kutai Kartanegara Regency's Regional Revenue Agency, the head of Muara Kaman Subdistrict, and their employees. We express our sincere gratitude to the Rector of Kutai Kartanegara University and the Dean of the Faculty of Agriculture for assigning and facilitating the execution of this study.

Author Contributions

Ida Bagus Made Agung Dwijatenaya: Conceptualization, Methodology, Software, Validation, Formal Analysis, Data Curation, Writing - Original Draft Preparation, Review, Editing, Yonathan Palinggi: Conceptualization, Methodology, Bahari Joko Susilo: Software, Validation, Formal Analysis, Funding Acquisition, Arista Damayanti: Validation, Investigation, Writing – Review, Editing, Astik Drianti: Formal Analysis, Writing - Original Draft Preparation, Review, Editing, Funding Acquisition, Elvida Febriana: Software, Data Curation, Project Administration. All authors have read and agreed to the published version of the manuscript.

Conflict of Interest

No conflicts of interest are disclosed by the authors.

Data Availability

Focus groups with swiftlet's nest farmers in Muara Kaman Subdistrict, Kutai Kartanegara Regency, East Kalimantan Province, Indonesia, provided the primary data used in this study. SemPLS version 4.0 was then used to tabulate and analyse the gathered data. We cannot share data with third parties because of confidentiality agreements with participants, even though we support and encourage transparency for future study. As a result, this study's dataset is not publicly accessible.

Declaration of Artificial Intelligence (AI) Assistance

To fix the grammar and make this book easier to read, the authors employed artificial intelligence (AI) technologies including Braintax AI, Grammarly, and Paraphraser. The only purpose of these tools was to improve the language's presentation and clarity. The research design, data collection, statistical analysis, interpretation, and conclusions are entirely the authors' responsibility. The integrity and substance of this work are entirely the authors' responsibility.

Ethics Approval

This research has passed an ethics test from Kutai Kartanegara University, Tenggarong, Indonesia through the Institute for Research and Community Service Number: 060/KET.P/UKT-LPPM/V/2026.

Funding

This research was funded by the Kutai Kartanegara Regency Government budget through the Kutai Kartanegara Regency Regional Revenue Agency, based on Decrees of the Head of the Kutai Kartanegara Regency Regional Revenue Agency and Kutai Kartanegara University Number: P.393/BAPENDA/BPP.III/05/2025 and Number: UKT-2236.a/01-A-3/V/2025.

References

1. Murib T, Susena KC. The Potential Of Land And Building Tax Revenue In The City Of Bengkulu. J Appl Financ Manag. 2025;1(1):1–10. https://doi.org/10.37676/jafm.v1i1.702
2. Ramadhani MHZK, Mahardika SG, Rahmah AH. The Interplay of Compensation and Working Facilities on Local Tax Revenue : A Data Panel Evidence of Municipalities in East Borneo. Eastasouth J Soc Sci Humanit. 2024;1(03):182–8. https://doi.org/10.58812/esssh.v1i03.265
3. Prawiranegara B, Akbar DS, Setianingsih W, Lisara A. Contribution of Swallow's Nest Tax and Local Tax to Local Own Revenue: Evidence in One of the Region in Indonesia. JAWARA J Wawasan dan Ris Akuntans. 2020;7(2):92–104. doi:10.25157/.v7i2.3439
4. Halkam H, Demmallino EB, S.Ali MS, Suhab S. Competitiveness of Indonesian Edible Bird ' s Nest in Global Markets. Asian J Agric. 2026;10(1):1–10. https://doi.org/10.13057/asianjagric/g100106
5. Kuswandi H, Myrna R, Karlina N. Swallow Nest Tax Control in Cirebon Regency. J Pelayanan Publik. 2020;03(2):73–129. https://doi.org/10.24198/jmpp.v3i2.25440
6. Setiawan E, Dhewanto W. Business Development Strategy to Develop and Sustain Small Family Business (Case Study: Huanghun Bird's Nest). J Int Conf Proc Vol. 2021;4(3):426–35. doi: https://doi.org/10.32535/jicp.v4i3.1344
7. Mukhram M, Hajar S. Analysis of Taxpayer Compliance in Paying Taxes Swallow's Nest at the Regional Revenue Agency in Majene Regency. J Ekon. 2024;13(04):576–89. https://ejournal.seaninstitute.or.id/index.php/Ekonomi/article/view/5765
8. Hamid I, Rahman MI, Srihardjanti R, *et al*. The Potential, Structure, and Effectiveness of The Local Tax System in Strengthening Local Own-Source Revenue (PAD) in Kotabaru Regency. Bull Econ Stud. 2025;5(3):238–55. https://doi.org/10.24252/best.v5i3.64015

9. Sholikah A, Syaiful. The Effect of Taxpayer Awareness, Tax Understanding, Tax Sanctions, and Risk Preferences on Land and Building Taxpayer Compliance. IRJ Innov Res Journa. 2022;3(1):59–63. https://doi.org/10.30587/innovation.v3i1.3732
10. Sari P, Muzaki IS, Mulyatini N, Faridah E, Prawiranegara B. Local Own Revenue, Decentralization and Local Financial Independent. J Manaj Indones. 2019;19(3):250–9. https://doi.org/10.25124/jmi.v19i3.2413
11. Dharma AS, Handoko R, Rochim AI. Between Policy and Reality, an Evaluation of Swiftlet Nest Tax Implementation in Hulu Sungai Utara, South Kalimantan. International Journal of Education, Vocational and Social Science. 1945;05(01):232–56. doi: 10.63922/ijevss.v5i01.2726
12. Wijaya GC, Corneliatisa NPK, Primajana DJ, T DP. Determinants of Land and Building Taxpayer Compliance in a Decentralized Tax System: Evidence from Denpasar City. J Ilm Akunt dan Bisnis. 2025;10(2):179–87. https://doi.org/10.38043/jiab.v10i2.7352
13. Risqiananda N, Fadhilatunisa D, Jannah R. Analysis of Factors Influencing Taxpayer Compliance in Paying Land and Building Tax with Islamic Faith. J Appl Tax Policy. 2025;1(2):67–86. https://doi.org/10.66053/jatap.v1i2.130
14. Indaliana, Paranoan S. Optimizing Swallow' s Nest Tax: Potential, Effectiveness, and Its Role in Regional Economic Development. Int J Econ Dev Res. 2025;6(2):826–38. https://doi.org/10.37385/ijedr.v6i2.7233
15. Ardillah K, Santoso NM. The Effect of Tax Amnesty, Understanding of Taxation, Tax Sanctions, and Tax Service Quality to Micro, Small, and Medium Enterprises Taxpayer Compliance During Covid-19. J Account Audit Bus. 2023;6(2):54–67. https://doi.org/10.24198/jaab.v6i2.48513
16. Kholagi HF, Hidayah N. Influence Quality of Service, Taxpayer Knowledge and Taxpayer Awareness Towards Taxpayer Compliance. J Manag Accounting, Gen Financ Int Econ Issues. 2025;4(2):307–20. https://doi.org/10.55047/marginal.v4i2.1614
17. Pandean RED, Kalangi L, Mintalangi SSE. Analysis of the Impact of Swallow ' s Nest Tax on Local Revenue in the City of Bitung. J Financ Bus Digit. 2026;5(1):53–72. https://doi.org/10.55927/jfbd.v5i1.17
18. Johnson B, Christensen L. Educational Research; Quantitative, Qualitative, and Mixed Approaches. Third. McDaniel D, editor. London; 2008. ISBN: 978-1-4129-54563. https://books.google.co.in/books/about/Educational_Research.html?id=8qoaXPh6E4UC&redir_esc=y
19. Mueller RO. Basic Principles of Structural Equation Modeling; An Introduction to LISREL and EQS. Springer-Verlag New York. Inc. 1996. doi:10.1007/978-1-4612-3974-1
20. Kaplan D. Structural Equation Modeling: Foundation and Extensions. Second. SAGE Publications. 2009. ISBN: 978-1-4129-1624--0. https://books.google.co.in/books/about/Structural_Equation_Modeling.html?id=QFUWEBDdwr8C&redir_esc=y
21. Wang J, Wang X. Structural Equation Modeling. Second. Oxford: John Wiley & Sons. Ltd; 2020. ISBN: 978119422709. https://www.wiley.com/en-fr/Edition-p-9781119422709
22. Hair Jr. JF, Hult GTM, Ringle CM, Sarstedt M, Danks NP, Ray S. Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R. Cham, Swiss: Springer; 2021. https://doi.org/10.1007/978-3-030-80519-7
23. Piaw CY. A Step-by-step Guide to SMARTPLS 4: Data Analysis Using PLS-SEM, CB- SEM, Process and Regression. First edition. Kuala Lumpur: Researchtree; 2024. ISBN:9798320423203.
24. Yuliarmi NN, Dunggio M, Yasa INM. Improving public welfare through strengthening social capital and cooperative empowerment. Cogent Bus Manag [Internet]. 2020;7(1):1–13. https://doi.org/10.1080/23311975.2020.1841075
25. Izdhihar RF, Tarmidi D. The Influence of Tax Knowledge, Tax Awareness, and Tax Morality on Tax Compliance of MSMES in The Kebon Bawang Urban Village, North Jakarta. EDUCORETAX. 2024;4(9):1126–36. https://doi.org/10.54957/educoretax.v4i9.1077
26. Lestari SM, Daito A. The Influence of Taxation Knowledge, Tax Socialization and Tax Administration on Taxpayer Compliance (Empirical Study in Micro Small and Medium Enterprises (MSMES) Tobat Village, Balaraja Sub-District, Tangerang Regency, Banten Province). DIJMS. 2020;1(5):732–9. https://doi.org/10.31933/dijms.v1i5.287
27. Pistone P, Roeleveld J, Hattingh J, Nogueira JFP, West C. Fundamentals of Taxation; An Introduction to Tax Policy, Tax Law and Tax Administration. Amsterdam: IBFD. 2019. ISBN: 978-90-8722-537-7. https://shop.ibfd.org/sites/default/files/2021-05/19_018_fundamentals_of_taxation_final_web.pdf
28. Aprilia P, Zulyati, Afifi Z. The Effect of Tax Knowledge, Taxpayer Awareness, Education Level, Tax Socialization and Tax Justice on Taxpayer Compliance for SMEs (Study On Convection Taxpayer In Kudus). JEMSI (Jurnal Ekon Manajemen, dan Akunt. 2022;8(1):1–6. https://doi.org/10.35870/jemsi.v8i1.632
29. Hartanto G. The Influence of Tax Knowledge, Tax Socialization, and Tax Sanctions on Tax Compliance of MSME Actors With Tax Service Quality as A Moderating Variable. JRSSEM. 2025;04(10):1587–99. https://doi.org/10.59141/jrssem.v4i10.851
30. Subagiyo A, Nurbaity S, Islah K, Hermawan R, Junaidi A. Effect of Taxpayer Awareness, Understanding's Knowledge of Taxation on Compliance of Small and Medium Micro Business Taxpayers at Pratama Tax Service Office Cibitung. Ilomata Int J Tax Account. 2022;3(1):68–77. doi: https://doi.org/10.52728/ijtc.v4i1.380
31. Indriani, Syariati NE, Sari NR. The Influence of Taxpayer Awareness , Tax Sanctions , and Tax Knowledge on Taxpayer Compliance , Moderation of Morals. Indones J Tax Account. 2025;3(2):1–17. https://doi.org/10.66053/ijota.v3i2.49
32. Amanda C, Hadi DA. The Influence of Knowledge, Taxpayer Awareness, and Tax Sanctions on Tax Compliance. J Bisnis, Ekon dan Sains J.

2023;3(1):451–9.
https://doi.org/10.33197/bes.vol3.iss1.2023.1956
33. Jones SM, Rhoades-Catanach SC, Callaghan SR. Principles of Taxation; for Business and Investment Planning. Twenty Third. New York: McGraw-Hill Education. 2020.
ISBN: 978-1-259-96954-6
https://www.mheducation.com/unitas/highered/sample-chapters/9781259969546.pdf
34. Ramadhani N, Maryati. The Influence of Tax Knowledge, Taxpayer Awareness, Income Level, and Tax Sanctions on Motor Vehicle Taxpayer Compliance: A Study at the Mesuji District Samsat Office. E-Jurnal Akunt. 2026;36(1):82–95.
https://doi.org/10.24843/EJA.2026.v36.i01.p06
35. Nurkhin A, Novanty I, Muhsin M, Sumiadji S. The Influence of Tax Understanding, Tax Awareness and Tax Amnesty toward Taxpayer Compliance. J Keuang dan Perbank. 2018;22(2):240–55.
https://doi.org/10.26905/jkdp.v22i2.1678
36. Depi S, Rachman S, Yuliani NF, Tahalua I, Maruni NS. Strengthening Individual Taxpayer Compliance: The Impact of Tax Sanctions and Regulatory Review. Amnesty J Ris Perpajak. 2024;07(01):138–45.
https://journal.unismuh.ac.id/index.php/jrp-amnesty/article/download/14721/7210
37. Tanady AK, Lukman H. the influence of taxpayer awareness, tax sanctions, and the implementation of the e-filling system on taxpayer compliance in micro, small, and medium enterprises. Int J Appl Econ Bus. 2024;2(4):891–901.
https://doi.org/10.24912/ijaeb.v2i4.891-901
38. Nurdiana A, Maulina A, Wahyudin D, Zaini Z, Hendrarso P. The Influence of Taxpayer Awareness, Tax Knowledge, Service Quality, Tax Sanctions, and Tax Audits on Tax Compliance of Restaurant Taxpayers. J LOCUS Penelit Pengabdi. 2025;4(5):1994–2005.
https://doi.org/10.58344/locus.v4i5.4041
39. Wafa MA, Kusmayasari D, Darmayanti N. Tax Sanctions as A Moderation Variable that Influencing Fiscus Services, Implementation of E- filing, and Tax Audit on Taxpayer Compliance. Journal of Governance Taxation and Auditing. 2025;3(4):157–68.
https://doi.org/10.38142/jogta.v3i4.1448
40. Putri SS, Herawati TD. The Effect of E-Filing Implementation, Tax- Payer Awareness, Tax Sanctions, and Tax of- Ficer Service Quality on Taxpayer Compli- Ance (A Case Study on Individual Taxpayers Registered at KPP Pratama Blitar). Telaah Ilm Akunt dan Perpajak. 2025;3(1):135–48.
https://doi.org/10.21776/tiara.2025.3.1.200
41. Subekti KV, Yuliana Y. Tax Knowledge, Taxpayer Awareness and Tax Service Quality on Taxpayer Compliance Moderated by Tax Sanctions. Owner: Riset Dan Jurnal Akuntansi. 2024;8(1):470–82.
https://doi.org/10.33395/owner.v8i1.1804
42. Nurawalya DNS, Sutrisno T. The Effect of Tax Service Quality on Taxpayer Compliance With Satisfaction as The Mediating Variable. Telaah Ilm Akunt dan Perpajak. 2025;3(1):1–16.
https://doi.org/10.21776/tiara.2025.3.1.164

How to Cite: Dwijatenaya IBMA, Palinggi Y, Susilo BJ, Damayanti A, Drianti A, Febriana E. Factors Influencing the Management of Swiftlet Nest Tax: Evidence from Kutai Kartanegara Regency, East Kalimantan, Indonesia. Int Res J Multidiscip Scope. 2026;7(3):1621-1635.
DOI:10.47857/irjms.2026.v07i03.010097