JOURNAL OF INTERDISCIPLINARY PERSPECTIVES

ISSN Print: 2984-8288, ISSN Online: 2984-8385
Vol. 2, No. 12, pp. 351-364, December 2024

Explanatory-Sequential Study of the Real Property Appraisal System and Challenges in Calamba City Assessor's Office

Laurence B. Alcachupas
Laguna College of Business and Arts, City of Calamba, Laguna, Philippines

Author Email: yayikassessor@gmail.com

Date received: September 26, 2024
Date revised: October 29, 2024
Date accepted: November 16, 2024

Originality: 96%
Grammarly Score: 99%
Similarity: 4%

Recommended citation:
Alcachupas, L. (2024). Explanatory-sequential study of the real property appraisal system and challenges in Calamba City assessor's office. *Journal of Interdisciplinary Perspectives*, 2(12), 351-364.
https://doi.org/10.69569/jip.2024.0525

Abstract. The collection of taxes was a significant component in maintaining the monetary stability of cities, regions, and countries and contributing to their economic growth**.** This study investigated the relationship between the assessments of assessor personnel and barangay captains regarding the level of observance of information dissemination on real property appraisal, as well as the challenges faced by the City Assessor's Office of Calamba City. The goal was to establish a more efficient system for information dissemination related to real property appraisal laws. In order to develop a comprehensive and efficient way of information dissemination in Calamba City about the real property appraisal law, a mixed-methods sequential explanatory design was used, involving 67 respondents: 54 barangay captains and 13 assessor personnel, selected through stratified random sampling. Additionally, using purposive sampling, 10 participants (5 barangay captains and 5 assessor personnel) were chosen for the qualitative phase. The quantitative analysis showed no significant difference in the assessments of barangay captains and assessor personnel regarding the observance of real property appraisal laws, with p-values of .308 and .554, both above the .05 significance level. Furthermore, no significant relationship was found between the level of observance and the challenges encountered by the Assessor's Office. In line with this, the qualitative phase identified three key themes: (1) Public Misunderstanding and Lack of Awareness, (2) Systemic Challenges in Information Dissemination, and (3) Strategies for Effective Communication that can highly influence the current taxation system. Based on these findings, an action plan was developed to enhance public awareness and improve communication strategies.

Keywords: Assessor personnel; Barangay captains; Information dissemination; Public awareness; Real property appraisal.

1.0 Introduction

Tax collection is a fundamental element in sustaining the economic and financial stability of cities, regions, and nations. Among various forms of taxation, the collection of real property taxes stands out due to its significant contribution to local government revenues. Efficient tax collection, particularly in the real property sector, ensures governments can finance essential public services, infrastructure development, education, and healthcare programs. Moreover, tax collection performance is commonly measured by the government's ability to collect taxes promptly and reduce cases of non-compliance and tax evasion. High performance in tax collection indicates a well-functioning system and positively impacts the economic health of a region (OECD, 2020). However, real property tax collection challenges remain prevalent, with issues such as unassessed properties, lack of awareness among taxpayers, and delinquency rates affecting the system's overall effectiveness.

Real property taxation hinges on accurately assessing land values, a process with economic, legal, and social implications. According to Folger (2020), the valuation of land is crucial for financing, sales listings, investment analysis, property insurance, and taxation. Economic conditions, government policies, social trends, and environmental considerations play a role in determining property value. As a result, tax collection performance is directly tied to the accuracy of property assessments, which form the basis for calculating real property taxes. When assessments fail to reflect the true market value or remain incomplete, the government forfeits potential revenue, as seen in cities like Calamba.

The assessment and collection processes have yielded substantial revenue in Calamba City, which has been recognized as the top-performing city in CALABARZON for real property tax collection. In line with this, data from the City Treasurer's Office (2023) show that from 2018 to 2022, the city collected between Php 1.44 billion and Php 1.59 billion in real property taxes. However, despite these impressive figures, many properties remain unassessed, contributing to unrealized revenue potential. Moreover, the City Assessor's Office reports that many property owners remain unaware of their tax obligations due to insufficient information dissemination, leading to higher delinquency rates.

Research on local governments' tax collection performance and property assessment has highlighted similar issues globally. In support of this, studies by Bird and Slack (2018) and Kelly (2021) have demonstrated that inefficiencies in tax collection stem from gaps in property assessment procedures and a lack of transparency in information dissemination. In particular, Bird and Slack (2018) noted that cities with more effective public communication strategies on property tax obligations tend to have lower delinquency rates. Meanwhile, Kelly (2021) emphasized the importance of ensuring that assessment practices align with current property values and are regularly updated. While these studies provide insight into local governments' challenges, they do not fully account for the role that local government units and community leaders play in disseminating tax-related information.

In the case of Calamba City, the role of barangay captains in facilitating the dissemination of real property tax information is particularly noteworthy. Republic Act No. 7160, or the Local Government Code of 1991, outlines the responsibility of local leaders in making ordinances and regulations publicly accessible. Section 201 of Chapter 2, on Appraisal and Assessment of Real Property, mandates that all properties be appraised at fair market value. Section 202 requires property owners to declare their properties for taxation purposes. However, despite these legal provisions, many property owners in Calamba City remain uninformed about their tax responsibilities, as evidenced by the delinquency rates in barangays such as Canlubang, Burol, and Makiling. According to the City Assessor's Office, the number of delinquent taxpayers across the city reached 10,868 between 2018 and 2022, with the most common being a lack of awareness about ordinances, deadlines, and real property announcements. Additionally, section 271 of the Local Government Code entitles barangays to a share of the collected taxes; this financial incentive has not been sufficient to reduce the number of delinquent taxpayers.

The literature consistently emphasizes the need for robust information dissemination mechanisms to improve tax compliance (Walker, 2017). Walker (2017) suggested that cities explore modern communication platforms such as social media and public access to enhance taxpayer engagement. Still, the effectiveness of such strategies has yet to be rigorously examined in the context of real property tax collection. However, many local governments, including Calamba City, struggle with implementing effective communication strategies. While

The current study seeks to address this gap by investigating the relationship between the information dissemination practices of the City Assessor's Office and barangay captains and the level of tax compliance among property owners in Calamba City. Specifically, the research aims to examine the role of these local leaders in communicating real property appraisal laws and assess the challenges encountered by the City Assessor's Office in improving tax compliance. By identifying the strengths and weaknesses of current dissemination practices, the study will contribute to developing a more comprehensive and effective communication strategy for real property tax obligations. Ultimately, the findings may help local governments like Calamba City maximize their revenue potential and reduce delinquency through enhanced taxpayer awareness and engagement.

In light of the identified gaps in the literature, this study aims to evaluate the effectiveness of information dissemination on real property appraisal laws in Calamba City and its impact on tax compliance. The research aims to provide practical insights into how collaboration between the City Assessor's Office and barangay captains can improve the dissemination of tax-related information. The significance of this study lies in its potential to guide policy reforms that will strengthen local tax systems, ensure the equitable distribution of tax burdens, and support the long-term financial sustainability of local governments.

2.0 Methodology

2.1 Research Design

This study employed an explanatory sequential research design, integrating quantitative and qualitative approaches to understand the research problem comprehensively. Initially, quantitative data were collected and analyzed, followed by qualitative data collection to explain further or expand upon the quantitative findings. This design was selected to explore the relationship between variables and to provide deeper insights into the phenomenon under investigation.

The quantitative phase adopted a descriptive-correlational research method. Saro et al. (2023) state that a descriptive-correlational design "investigates one or more characteristics of a group to discover the extent to which these characteristics vary together." This approach enabled the researcher to examine the potential relationship between the respondents' level of awareness regarding city programs related to real property appraisal laws and the effectiveness of tax collection systems. Rather than focusing on causality, the study aimed to describe and quantify these relationships using statistical methods like correlation and multiple linear regression. The subsequent qualitative phase contextualized and expanded upon the quantitative results, providing a more nuanced understanding of real property appraisal systems and the challenges encountered.

2.2 Research Participants

The research was conducted in Calamba City, Laguna, a first-class component city in Laguna, Philippines. The study targeted 67 participants, comprising 54 *punong barangays* and 13 City Assessor's Office personnel. A stratified random sampling technique was employed for the quantitative phase, assisted by G*Power software and supported by a statistician to ensure a representative sample. For the qualitative phase, a purposive sampling technique was used to select 10 participants: five *punong barangays* and five personnel from the City Assessor's Office. The participants were selected based on the following criteria: (1) a minimum of two years of service as either a *punong barangay* or assessor personnel, (2) the barangay in question being listed among those with delinquent real property payors, and (3) personal experience with challenges in the real property appraisal system.

2.3 Research Instruments

Two types of research instruments were utilized: surveys and semi-structured interviews. The researcher developed the survey instrument to measure the observance and implementation of real property appraisal laws and information dissemination. The survey consisted of real property appraisal law and information dissemination, assessed using a four-point Likert scale wherein the responses were scored along a range. The respondents for this phase included 54 *punong barangays* and 13 personnel from the City Assessor's Office.

For the qualitative phase, a set of semi-structured interview questions was developed. These interviews aimed to explore the challenges assessor personnel and barangay captains face regarding real property appraisal laws and the dissemination of related information. The semi-structured interview guide comprised three validated questions to elicit in-depth responses regarding the respondents' experiences and challenges. The survey and interview instruments were carefully crafted to ensure alignment with the research objectives. The thesis adviser initially reviewed and enhanced both instruments, followed by validation from five independent research experts to establish content validity. The instruments were pilot-tested on ten stakeholders who were not part of the final study sample. The reliability of the survey instrument was assessed using Cronbach's Alpha, which measured how closely related a set of items were as a group, with coefficients of .945, .934, and .878 for the three main sections of the questionnaire. The interview guide was further validated using the Content Validity Ratio (CVR), an approach to determine whether the knowledge per item on the test is essential or relevant, supported by the feedback of five institutional research experts. Moreover, a thematic analysis was utilized to identify the emerging themes, see the relationship of the qualitative data findings with the quantitative data, and develop a comprehensive interpretation.

2.4 Data Gathering Procedure

In the quantitative phase, data were collected using online and in-person survey methods. Respondents were encouraged to submit their completed questionnaires through Google Forms or by returning physical copies to the researcher. The researcher implemented a one-day collection strategy to maximize response rates, minimizing missing or incomplete data risk. Once collected, the responses were systematically tabulated and organized in a spreadsheet for further analysis. The qualitative phase involved one-on-one interviews with the selected participants. Informed consent was obtained before conducting interviews, ensuring ethical compliance. The researcher ensured that interviews were scheduled to accommodate the participants' availability, minimizing disruption to their regular work schedules. Interviews were conducted via Zoom and recorded with the participant's consent. Following the interviews, the recordings were transcribed verbatim, and the data were organized for qualitative analysis, with emerging themes identified through thematic analysis.

2.5 Ethical Considerations

This study adhered strictly to ethical research principles. Informed consent was obtained from all participants, ensuring they understood the nature and purpose of the study and could make voluntary decisions about their participation. The researcher guaranteed confidentiality and privacy, ensuring all data were anonymized and securely stored. Throughout the research process, the researcher was committed to respecting participants' autonomy and providing clear and transparent information about the study's objectives and procedures. No discriminatory or offensive content was included in the survey or interview questions. The research instruments were carefully designed to avoid references to specific religious or political beliefs that could cause participants discomfort. Additionally, all responses were treated with respect and confidentiality, ensuring the dignity of the participants was upheld. The researcher also ensured the proper citation and acknowledgment of all sources and literature used in the study, demonstrating academic integrity and avoiding plagiarism.

2.6 Data Analysis

The statistical analysis for the quantitative data was performed using the Statistical Package for Social Sciences (SPSS). The mean and the four-point Likert scale were used to assess the level of observance and implementation of real property appraisal laws and information dissemination by the *punong barangays* and assessor personnel. T-test was employed to analyze the significant differences between the assessments of the *punong barangays* and the assessor personnel regarding the observance of real property appraisal laws and information dissemination. Pearson-R was used to examine the relationship between the level of observance of the real property appraisal system and the challenges encountered by the Assessor's Office. For qualitative data, thematic analysis was employed. The interview transcripts were analyzed to identify patterns and recurring themes, allowing for a comprehensive understanding of the challenges faced by assessor personnel and barangay captains. Qualitative data were interpreted in line with Qualitative Data Analysis (QDA) methods, as described by Sarino (2016), to ensure an accurate and in-depth exploration of the participants' experiences.

3.0 Results and Discussion

3.1 Real Property Appraisal Observance

Real Property Appraisal Law

As depicted in Table 1, the level of observance of real property appraisal in the City Assessor's Office of Calamba City as assessed by assessor personnel and barangay captain in terms of real property appraisal law was Observed as shown in the composite assessment of 2.98. It garnered a standard deviation of 0.31 for the barangay officials and 0.19 for the residents. "Integration of feedback mechanisms to address knowledge gaps and enhance understanding of real property appraisal laws among personnel" yielded the highest mean score of 3.19 and was interpreted as Observed. On the other hand, "Implementation of existing mechanisms for addressing concerns or disputes raised by property owners regarding appraisal outcomes" received the lowest mean score of responses with 2.82 and was interpreted as Observed.

It implies that the City Assessor's Office of Calamba City has prioritized internal education and training initiatives to ensure its employees thoroughly understand real property appraisal laws. By incorporating feedback mechanisms, it has created an environment conducive to addressing knowledge gaps and improving comprehension among its employees. This proactive approach will likely result in more accurate and consistent property appraisals, which may explain why this aspect received the highest observed rating.

In contrast, the least observed aspect indicates a potential gap in the City Assessor's Office's responsiveness to property owners' concerns and disputes about appraisal results. The lack of effective mechanisms for addressing such issues may cause dissatisfaction among property owners and undermine trust in the appraisal process. This lack of implementation could be due to governmental obstacles or a lack of clear dispute resolution protocols, highlighting areas for improvement within the office's operational framework. Seemingly, this lack of understanding could contribute to disputes and resistance from property owners, as mentioned by Participant 7, who struggles to grasp the reasons behind delinquency and the necessity of payment.

Table 1. Descriptive statistics of real property appraisal law observance in Calamba city assessor's office

Indicators	Assessor Personnel		Barangay Chairperson		Composite	
	Mean	**Interpretation**	**Mean**	**Interpretation**	**Mean**	**Interpretation**
1. Frequency of training sessions conducted for assessors regarding real property appraisal laws.	2.62	O	3.07	O	2.85	O
2. Implementation of standardized appraisal procedures as outlined in relevant laws and regulations.	3.08	O	3.04	O	3.06	O
3. Existence of documentation showcasing compliance with legal requirements during property assessment processes.	3.31	HO	2.81	O	3.06	O
4. Participation rate of assessors and personnel in training programs focusing on property appraisal methodologies and legal frameworks.	2.85	O	2.96	O	2.91	O
5. Assessment of assessors' understanding and application of appraisal laws through periodic evaluations and assessments.	2.77	O	3.00	O	2.89	O
6. Integration of feedback mechanisms to address knowledge gaps and enhance personnel's understanding of real property appraisal laws.	3.15	O	3.22	O	3.19	O
7. Adherence to established valuation standards and methodologies endorsed by recognized appraisal organizations.	2.85	O	3.02	O	2.94	O
8. Regularly review and update appraisal guidelines to align with evolving industry standards and best practices.	3.38	HO	2.93	O	3.16	O
9. Consistency in applying appraisal standards across different types of properties and geographical areas within Calamba City.	2.85	O	2.94	O	2.90	O
10. Provision of accessible channels for property owners to inquire about the appraisal process and seek clarification on valuation methodologies.	3.00	O	3.04	O	3.02	O
11. Publication of appraisal reports and findings every month, quarterly, or annually to promote transparency and accountability in property valuation.	3.08	O	3.22	HO	3.15	O
12. Implement existing mechanisms for addressing concerns or disputes property owners raise regarding appraisal outcomes.	2.69	O	2.94	O	2.82	O
13. Maintenance of comprehensive records documenting property assessments, including relevant data, methodologies, and valuation outcomes.	2.62	O	3.07	O	2.85	O
14. Periodic audits of appraisal records to ensure accuracy, completeness, and compliance with established protocols.	2.85	O	3.02	O	2.94	O
15. Implement secure data management systems to safeguard confidential information related to property assessments.	3.08	O	2.91	O	3.00	O
Standard Deviation	0.31	O	0.19	O	2.98	O
Composite Assessment	2.94		3.01			

Legend: 3.25 - 4.00 Highly Observed (HO), 1.75 - 2.49 Slightly Observed (SO), 2.50 - 3.24 Observed (O), 1.00 - 1.74 Not Observed (NO)

The qualitative findings on Public Misunderstanding and Lack of Awareness supported this**.** Participant 1 and Participant 2 both emphasize the difficulty in comprehending the appraisal process, indicating a potential gap in communication or education between the Assessor's Office and the public. The statement highlights a common theme of public misunderstanding and lack of awareness regarding the details of real property appraisal laws and procedures. The lived experiences provided by participants underscores the complex challenges faced by the Assessor's Office in Calamba City regarding the real property appraisal system. The recurring theme of public misunderstanding and lack of awareness regarding appraisal laws and procedures suggests a critical need for improved communication and education initiatives between the Assessor's Office and property owners. This lack of understanding could contribute to disputes and resistance from property owners, as mentioned by Participant 7, who struggles to grasp the reasons behind delinquency and the necessity of payment. Additionally, the concerns raised about the complexity of appraisal guidelines, frequent policy changes, and technical difficulties in property assessment highlight the necessity for a stable and easily understandable framework to guide both assessors and property owners.

According to Yimam (2022), training is a continuous process that improves the quality of employees. The findings show that training design, training needs assessment, training delivery style, and training evaluation significantly impact employee performance. Finally, the study recommended that human resource management increase the quality and quantities of the training program and properly apply the four phases of the systematic training processes to improve the performance of administrative employees. Moreover, Karim et al. (2019) emphasized that employees are the most valuable assets of any organization. Organizations require well-trained employees to perform tasks efficiently and effectively. Organizations continuously develop their employees' skills, knowledge, and abilities. Training and development lead to improved employee performance. Employee performance is critical to organizational success. Training is essential for succeeding in today's global business landscape. It plays a crucial role in improving employee well-being and organizational development. Training and development are crucial factors in improving employee performance in most organizations. The study found that training raises employee awareness, motivates them, and improves performance.

Moreover, Baum et al. (2021) said that property appraisal is an important step in any real estate transaction because it calculates the fair market value of a property based on its condition, features, location, and comparable sales. However, the appraisal may come back lower or higher than the agreed-upon price, causing issues for buyers, sellers, lenders, and agents. Uchehara et al. (2020) found that effective communication is essential for successful real estate transactions. Whether it is an inquiry from a potential buyer, a request for property information, or a negotiation between parties, a timely response lays the groundwork for effective communication in the real estate industry. When clients contact real estate professionals, they expect prompt responses. A delayed response may give the impression that their needs are not being addressed or that the professional is disorganized and unresponsive. Such negative perceptions can quickly erode client relationships and jeopardize future business opportunities. Adhikari (2020) used descriptive statistical and linear regression analyses to determine that taxpayer awareness and understanding of taxes positively and statistically significantly impact taxpayer compliance. It has also been demonstrated that the taxpayer's comprehension has a greater impact than a variable of taxpayer awareness. In addition, the issue of continuous changes in appraisal guidelines and policies suggests that frequent revisions may exacerbate confusion and hinder public comprehension further, as mentioned by Participant 8.

Accordingly, Adhikari (2020) recommended in his study that the tax office implement regular and continuous tax education programs for taxpayers to increase their understanding and awareness. Based on the findings, Adhikari (2020) concluded that understanding taxation and taxpayer awareness positively and significantly affects taxpayer compliance in the Nepalgunj sub-metropolitan area.

Information-Dissemination

As shown in Table 2, the level of observance of real property appraisal in the City Assessor's Office of Calamba City as assessed by assessor personnel and barangay captain regarding information dissemination was Observed as shown in the composite assessment of 3.02. It garnered a standard deviation of 0.22 for the barangay officials and 0.20 for the residents. "Gathering of feedback from barangay captains and other stakeholders to identify areas for improvement" yielded the highest mean score of 3.65 and was interpreted as Observed. On the other hand, “Frequency and effectiveness of communication between the City Assessor’s Office and barangay captains regarding property appraisal initiatives and updates” attained the lowest mean score of responses with 2.51 and was interpreted as Observed. Regarding this, participant 6 raises concerns about difficulties in delivering information from the office to barangay captains, attributing it to a lack of authority or willingness to disseminate information effectively.

Table 2. Descriptive statistics of information-dissemination observance in Calamba city assessor's office

Indicators	**Assessor Personnel**		**Barangay Chairperson**		**Composite**	
	Mean	**Interpretation**	**Mean**	**Interpretation**	**Mean**	**Interpretation**
1. Regularity of public announcements regarding appraisal processes and related updates.	3.38	HO	3.06	O	3.22	O
2. Availability of accessible and comprehensible materials explaining property appraisal procedures to the public.	3.08	O	2.93	O	3.01	O
3. Utilization of digital platforms for disseminating information regarding property assessment, including website updates, social media engagement, and email newsletters.	3.08	O	2.96	O	3.02	O
4. Frequency and effectiveness of communication between the City Assessor’s Office and barangay captains regarding property appraisal initiatives and updates.	2.46	MO	2.56	O	2.51	O
5. Participation of barangay captains in consultative meetings or workshops to enhance their understanding of appraisal processes and legal requirements.	3.08	O	2.94	O	3.01	O
6. Gathering feedback from barangay captains and other stakeholders to identify areas for improvement.	3.62	HO	3.67	HO	3.65	HO
7. Determination of the average time to complete property assessments from initiation to valuation report issuance.	3.08	O	2.94	O	3.01	O
8. Implement streamlined procedures and technological solutions to expedite appraisal processes and minimize delays.	3.31	HO	2.81	O	3.06	O
9. Monitoring appraisal backlog to identify measures based on urgency and significance.	2.85	O	2.96	O	2.91	O
10. Establishment of internal quality control measures to review appraisal reports for accuracy, consistency, and compliance with regulatory requirements.	2.77	O	3.00	O	2.89	O
11. Engagement of external auditors or independent reviewers to assess the implementation of appraisal practices towards enhancement.	3.15	O	3.19	O	3.17	O
12. Implementation of continuous improvement initiatives based on results of quality assurance assessments and performance evaluations.	2.85	O	3.02	O	2.94	O
13. Conducting surveys or feedback mechanisms to gauge public satisfaction with property appraisal processes' transparency, fairness, and professionalism.	3.08	O	2.89	O	2.99	O
14. Monitoring public complaints or grievances trends to maintain public trust and confidence.	2.85	O	3.17	O	3.01	O
15. Utilization of public perception data in decision-making to improve service delivery within the City Assessor’s Office.	2.92	O	2.89	O	2.91	O
Standard Deviation	0.22	O	0.20	O	3.02	O
Composite Assessment	3.04		3.00			

Legend: 3.25 - 4.00 Highly Observed (HO), 1.75 - 2.49 Slightly Observed (SO), 2.50 - 3.24 Observed (O), 1.00 - 1.74 Not Observed (NO)

It implies that the City Assessor's Office in Calamba City places significant emphasis on stakeholder engagement and feedback mechanisms. The most common practice of gathering feedback from barangay captains and other stakeholders suggests a proactive approach to improving property appraisal processes. The Assessor's Office demonstrates its commitment to transparency, responsiveness, and continuous improvement by soliciting feedback from those directly involved and affected by appraisal initiatives.

The least observed aspect, however, is the frequency and effectiveness of communication between the Assessor's Office and barangay captains, indicating a potential information gap. The lack of regular and efficient communication channels may result in misunderstandings, delays, and inefficiencies in property appraisal activities. Barangay captains may feel disconnected from the process without clear and consistent updates, which can impede collaboration and potentially jeopardize the accuracy and fairness of property assessments. Thus, Participant 5 suggests the problem might stem from a lack of basic knowledge among barangay chairpersons. This indicates a need for simplified explanations and educational initiatives to ensure they grasp the importance and benefits of real property appraisal.

These results were supported by the theme **Systemic Challenges in Effective Dissemination of Information.** The shared experience from participants highlights significant challenges in effectively disseminating information about real property appraisal and tax delinquencies to barangay captains and other stakeholders in the community. The observations point to potential communication channel gaps, stakeholder comprehension levels, and the overall sincerity and motivation behind information dissemination efforts. This required simplifying the presentation of information and providing educational initiatives, enhancing communication processes within the Assessor's Office, and fostering genuine engagement and motivation among stakeholders like the Barangay Chairpersons. Amidu (2008, as cited in Adilieme et al., 2023) found that feedback significantly impacts valuation behavior and judgment accuracy. Client feedback on mortgage lending assignments can distort objective and independent valuation judgments. However, there was no statistically significant relationship between perceived role perception and feedback pressures that clients may apply.

3.2 Comparison of Assessor Personnel and Barangay Captains' Assessment of Real Property Appraisal Observance and Information Dissemination

As seen in Table 3, there was no significant difference between the assessor personnel's and barangay captain's assessments regarding the level of observance on real property appraisal in the City Assessor's Office of Calamba City relative to real property appraisal law and information dissemination. As shown in the probability values of .308 and .554, which were greater than the significance level at .05, they accepted the null hypothesis.

Table 3. Test of difference in assessor personnel and barangay captains' assessment of real property appraisal observance and information dissemination

Variables	t-test	P value	Remarks	Decision
Real property appraisal law	1.026	0.308	Not Significant	Accept Ho
Information-dissemination	0.594	0.554	Not Significant	Accept Ho

The study by Lestari and Wicaksono (2017) highlights the significant influence of taxpayer awareness on tax compliance. Specifically, the researchers found that an increased awareness of tax obligations leads to higher levels of compliance. However, they observed that tax knowledge, particularly among compliant taxpayers, did not significantly impact their compliance behavior. This suggests that while awareness is crucial, a high level of tax knowledge may not be necessary for compliance. Additionally, the study demonstrated that taxpayers' attitudes significantly affect their likelihood of complying with tax regulations, further emphasizing the role of positive attitudes in fostering tax compliance. Importantly, the study identified a simultaneous effect of three key variables—taxpayer awareness, tax knowledge, and taxpayer attitudes—on overall tax compliance.

Similarly, Hantono (2021) revealed that while tax knowledge was not found to have a significant direct effect on tax compliance, tax awareness was positively correlated with compliance, albeit with a smaller impact. Tax morale also significantly affected compliance, indicating that awareness and morale are important contributors to compliant behavior. The simultaneous testing of these variables showed that tax knowledge, awareness, and morale together explained 71% of the variance in tax compliance, as indicated by an R-squared value of 0.710.

Both studies agree that while tax knowledge alone may not be a key driver of compliance, taxpayer awareness and positive attitudes toward taxation are crucial in promoting compliance behavior. Thus, efforts to improve tax compliance should focus on enhancing taxpayer awareness and fostering positive attitudes toward tax obligations rather than solely increasing technical knowledge of tax laws.

3.3 Challenges Faced on the Real Property Appraisal System

As shown in Table 4, the challenges encountered on the real property appraisal system of the Assessor's Office in the City of Calamba as assessed by assessor personnel and barangay captain is Encountered as shown in the composite assessment of 3.06 and garnered a standard deviation of 0.32 of the barangay officials and 0.20 of the residents. "Tax Delinquency. Enforcing property tax collection and addressing tax delinquency issues pose challenges for assessors, particularly in cases where property owners fail to pay taxes or dispute the assessed value" got the highest mean score of 3.60 and was interpreted as Highly Encountered. On the other hand, "Comparison of Neighbors. Assessors often face challenges when comparing property values of neighboring properties, as factors such as property condition, size, and location may vary significantly." this garnered the lowest mean score of responses with 2. 76 and was interpreted as Encountered.

Table 4. Descriptive statistics of the challenges faced on the real property appraisal system

Indicators	Assessor Personnel		Barangay Chairperson		Composite	
	Mean	Interpretation	Mean	Interpretation	Mean	Interpretation
1. Dispute of Ownership. Resolving disputes over ownership of real property can be complex and time-consuming, requiring thorough investigation and documentation.	2.92	E	3.15	E	3.04	E
2. Incorrect Real Property Assessment. Accurate assessment of real property values is essential to maintaining fairness and equity in taxation. Errors in assessment can lead to discrepancies and complaints from property owners.	3.31	HE	2.93	E	3.12	E
3. Comparison of Neighbors. Assessors often face challenges when comparing property values of neighboring properties, as factors such as property condition, size, and location may vary significantly.	2.54	E	2.94	E	2.74	E
4. Double Ownership. Identifying cases of double ownership or overlapping property boundaries requires meticulous examination of legal documents and land records.	3.00	E	2.80	E	2.90	E
5. Legal Proceedings. Assessors may be required to act as witnesses in court proceedings related to property disputes, which can be time-consuming and require extensive preparation.	2.38	SE	3.13	E	2.76	E
6. Real Property Amnesty. Implementing real property amnesty programs to regularize informal settlements and unregistered properties can pose logistical challenges and require significant administrative resources.	2.62	E	2.96	E	2.79	E
7. Lack of Updated Information. Ensuring up-to-date and accurate property records can be challenging, especially in areas with rapid urban development or frequent property transactions.	2.85	E	3.04	E	2.95	E
8. Valuation of Unique Properties. Assessing the value of unique or specialized properties, such as heritage sites or industrial facilities, requires specialized knowledge and expertise.	3.08	E	3.22	E	3.15	E
9. Tax Delinquency. Assessors face challenges in enforcing property tax collection and addressing tax delinquency issues, particularly in cases where property owners fail to pay taxes or dispute the assessed value.	3.69	HE	3.50	HE	3.60	HE
10. Technological Limitations. Outdated technology or inadequate resources for data management and analysis can hinder the efficiency and accuracy of the real property appraisal system. Implementing modern appraisal techniques and software solutions may require investment and training.	3.77	HE	3.35	HE	3.56	HE
Standard Deviation	**0.32**	**E**	**0.20**	**E**	**3.06**	**E**
Composite Assessment	**3.02**		**3.10**			

Legend: 3.25 - 4.00 Strongly Agree – Highly Encountered (HE), 1.75 - 2.49 Disagree – Moderately Encountered (ME), 2.50 - 3.24 Agree – Encountered (E), 1.00 - 1.74 Strongly Disagree- Not Encountered (NE)

It implies that tax delinquency is a widespread problem within the Assessor's Office's real estate appraisal system in the City of Calamba. This challenge is most likely caused by a combination of factors, including economic hardship, disagreements over-assessed values, and a lack of awareness about tax obligations. The complexities of enforcing property tax collection and dealing with delinquency point to several underlying issues that must be addressed, ranging from administrative inefficiencies to socioeconomic factors affecting property owners. Tax delinquency is likely the most common challenge because it directly impacts the city's revenue generation and can result in significant financial losses if not resolved. Assessors must work diligently to enforce property tax collection, which includes tracking delinquent accounts, implementing penalty measures, and potentially resorting to legal action for noncompliance. Due to their complexity and sensitivity, the City of Calamba's assessors prioritize tax collection issues.

On the other hand, the least common challenge of comparing neighboring properties indicates a relatively stable environment in terms of property valuation factors such as condition, size, and location within the assessed area. This could be attributed to consistent urban planning or zoning regulations that govern property development, resulting in fewer differences between neighboring properties. Furthermore, it may reflect assessors' well-defined and consistent appraisal methodology, reducing the need for extensive comparisons between adjacent properties. Comparing neighboring properties may be the least difficult task because assessors have developed efficient methods for assessing property values using standardized criteria, reducing the need for extensive comparisons. Furthermore, if the properties in the area are uniform in terms of size, condition, and location, assessors may encounter fewer discrepancies when determining property values. This implies a simpler appraisal process for assessors, with less emphasis on complex neighbor-to-neighbor comparisons.

These challenges were supported by the theme Comprehensive Strategies for Efficient Communication. The participants' responses within the barangays of Calamba signify a proactive approach towards enhancing communication, promoting compliance, and fostering community engagement regarding the real property appraisal system and taxation regulations. By prioritizing communication channels, gathering feedback, and incentivizing cooperation among barangay officials and residents, there is a clear commitment to transparency, training, and responsiveness. These initiatives aim to update the appraisal process and empower constituents with knowledge, ultimately fostering a more compliant and informed community.

In their study, Fitri et al. (2022) wished to determine the effect of tax knowledge on tax compliance and tax morale and identify tax morale as a moderating variable that can strengthen the relationship between tax knowledge and tax compliance. According to the findings, tax knowledge and morale positively and significantly affected tax compliance. Tax morale significantly moderates the relationship between tax knowledge and tax compliance. Consequently, tax ethics must be incorporated into the educational process. Furthermore, Bhalla et al. (2022) emphasized that taxation is required to grow and develop the economy and businesses. Understanding taxes and approaching them correctly can determine the success or failure of a business. Consequently, this paper examines the relationship between tax knowledge and business performance. This study was conducted based on a survey of 450 registered Indian MSMEs. The empirical findings of Partial Least Square Structure Equation Modeling demonstrate that tax knowledge increases operational efficiency and protects businesses from tax fraud. Moreover, technological advances in the tax system and its knowledge have led to businesses' proper administration and governance of taxes, increasing their productivity. In-depth tax knowledge could benefit policymakers, governments, and businesses by promoting timely tax compliance and reducing tax evasion, avoidance, and fraud.

Likewise, Kurniawan (2020) discovered that 100 students who regularly attend night classes at Politeknik Negeri Batam (Polibatam) and who meet the requirements to be taxpayers demonstrate that tax education substantially impacts tax compliance. The indirect effect of tax education, because of tax knowledge, substantially affects tax compliance. Two students, two tax professors, and one Directorate General of Taxation employee were interviewed to corroborate the quantitative research findings. Conclusion: This study's results are consistent with the social learning theory, which asserts that the environment influences cognition and behavior. According to the theory, tax education can increase taxpayers' tax knowledge and influence their compliance behavior.

3.4 Relationship Between Real Property Appraisal Observance and Challenges Faced

As shown in Table 5, There was no significant relationship between the level of observance on the real property appraisal system and the challenges encountered by the Assessor's Office in the City of Calamba. The probability values were .120 and .497, greater than the significance level at .05, thus accepting the null hypothesis.

Table 5. Test of the relationship between real property appraisal observance and challenges faced

Variables	r value	P value	Remarks	Decision
Real property appraisal law	0.192	0.120	Not Significant	Accept Ho
Information-dissemination	0.084	0.497	Not Significant	Accept Ho

The research findings indicate that the correlation values ranged from 0.00 to 0.20, suggesting a very small positive correlation between various factors related to the observance of the real property appraisal system and the challenges faced by the Assessor’s Office in the City of Calamba. Inam (2022) identified significant positive relationships between several variables: perceptions of the officer-taxpayer relationship, the education level of the officer, perceptions of tax amnesty and social opportunities, and the interplay between these perceptions. Specifically, the study highlighted that an officer's educational background and perceptions of social opportunities correlate with improved relations between the administration and taxpayers.

Oladipo et al. (2022) further emphasize the need for tax authorities to enhance the tax knowledge of both taxpayers and tax collectors through targeted programs, initiatives, and training. In their research, Bornman and Ramutumbu (2019) classified tax knowledge into three categories: general, procedural, and legal. General tax knowledge pertains to the importance of financial literacy; procedural tax knowledge encompasses understanding tax compliance processes; and legal tax knowledge involves familiarity with relevant regulations.

From a practical standpoint, the proposed framework by Oladipo et al. (2022) serves as a valuable tool for future research, providing a structured approach to assessing tax knowledge as a determinant of tax compliance. This framework can assist tax authorities in developing targeted educational outreach programs to enhance taxpayers' understanding of their obligations and the compliance process. Moreover, it facilitates a comprehensive understanding of taxpayer behavior, influencing compliance practices within the taxpayer population.

3.5 Qualitative Findings

Public Misunderstanding and Lack of Awareness

This reveals significant challenges within the real property appraisal system of the Assessor’s Office in Calamba City, as articulated by the participants. This theme highlights a prevalent lack of understanding among the public regarding the intricacies of real property appraisal laws and procedures. Participants 1 and 2 emphasize difficulties in comprehending the appraisal process, suggesting a gap in communication and education between the Assessor’s Office and the community. This misunderstanding may lead to disputes and resistance from property owners, as Participant 7 notes their struggles to understand the rationale behind delinquency and the necessity of tax payments.

Participant 8 raises concerns about the frequent changes in appraisal guidelines and policies, indicating that such revisions could exacerbate confusion and hinder public comprehension. Without a stable and easily digestible framework, property owners may find it increasingly challenging to navigate the appraisal process, which, as Participant 9 points out, can impede tax collection efforts. Furthermore, Participant 10 identifies each property's technical complexities and unique characteristics as a major challenge. In a city as populous as Calamba, the limited number of assessors face difficulties in accurately appraising diverse properties, potentially leading to discrepancies and disputes regarding appraisal outcomes.

Systemic Challenges in Effective Dissemination of Information

The second theme highlights participants' shared experiences regarding the obstacles they encounter in disseminating information about the real property appraisal system. This theme indicates significant challenges in effectively communicating information about real property appraisal and tax delinquencies to barangay captains and other relevant stakeholders in the community. Participant 1 notes that, despite meetings and assemblies, there remains a lack of comprehensive understanding among barangay captains, suggesting a potential gap in communication channels or the presentation of information.

Participant 5 suggests that the issue may stem from a lack of foundational knowledge among barangay chairpersons, indicating a need for simplified explanations and educational initiatives to ensure they comprehend the importance and benefits of real property appraisal. This implies that current methods of information dissemination may be too complex or inaccessible for some stakeholders. Participant 6 expresses concerns regarding the challenges in conveying information from the Assessor’s Office to barangay captains, attributing this to a lack of authority or willingness to share information effectively. This indicates a breakdown in communication processes within the organizational structure, which hinders the flow of essential information to those who require it most.

Additionally, Participant 9 highlights issues of sincerity in information dissemination, suggesting that the motivation behind sharing information may be insufficient. This underscores the notion that merely providing information is inadequate; genuine effort and incentives must encourage stakeholders to engage with the information and take appropriate action.

Comprehensive Strategies for Efficient Communication

The theme reflects a concerted effort among participants to enhance communication and information dissemination within the barangays regarding the real property appraisal system in Calamba. Participants acknowledge the importance of engaging with community assemblies, gathering feedback, and conducting follow-ups to ensure relevant information effectively reaches constituents. Moreover, there is a focus on incentivizing barangay officials to promote compliance with property appraisal and tax regulations. The mention of a reward system indicates a strategic approach to foster cooperation and adherence to the law among property owners. The proposal for seminars and training demonstrates a proactive initiative to educate barangay members about the complexities of the real property appraisal system in an accessible manner. This approach aims to empower residents with knowledge, fostering greater transparency and compliance within the community.

The emphasis on prompt responses to inquiries underscores the importance of timely and accurate information dissemination. A commitment to providing stable and reliable information enhances trust and credibility, facilitating the smoother implementation of policies and procedures related to property appraisal and taxation. Overall, these strategies reflect a holistic approach to addressing the challenges faced by the Assessor's Office and improving taxpayer engagement in Calamba City.

3.6 Proposed Action Plan

An action plan (Table 6) was designed to address the specific areas identified in the study to increase public understanding, awareness, and effective communication. Enhanced communication, regular monitoring, and evaluation of the implemented strategies would ensure ongoing improvement and alignment with the real property appraisal system and information dissemination in the City Assessor's Office of Calamba.

Table 6. Proposed action plan

Key Areas	Objectives	Strategies/ Activities	Frequency	Persons Involved	Source Of Fund	Success Indicators
Public Understanding	Improve communication and information dissemination within barangays regarding the real property appraisal system.	Organize regular community assemblies or town hall meetings to discuss property appraisal procedures, tax regulations, and upcoming changes.	Quarterly	-Barangay Chairpersons -Assessor's Office Personnel -Community volunteers for organizing events and disseminating information	Corporate Operating Budget	90% has increased attendance and participation in community assemblies and seminars.
		Conduct seminars and training sessions for barangay officials and residents to educate them about the real property appraisal system in simplified terms.	Bi-annually			
Public Awareness	Increase awareness and understanding of property appraisal and tax regulations among residents.	Implement a reward system for barangay officials who actively promote compliance with property appraisal	Annually	-Assessor's Office Personnel	Corporate Operating Budget	80% awareness and understanding among residents regarding property appraisal and tax regulations, as indicated by pre- and post-event surveys, has been achieved.

		and tax regulations.				
	Establish effective feedback mechanisms to gather input and address concerns regarding the appraisal system.	Establish a dedicated hotline or email address for residents to submit inquiries and receive timely responses. .	Daily	-Assessor's Office Personnel	Corporate Operating Budget	80% reduction in inquiries and complaints related to misunderstandings or confusion about the appraisal system has occurred.
		Utilize social media platforms and community newsletters to disseminate information about property appraisal and taxation.	Weekly			
Effective Communication	Ensure prompt and accurate responses to inquiries related to property appraisal and taxation.	Conduct follow-up visits and surveys to gather feedback from residents about their understanding of the appraisal system and any areas of confusion or concern. Provide regular updates and reminders about important deadlines, regulation changes, and other relevant information through various communication channels.	Bi-monthly	-Barangay Chairpersons -Assessor's Office Personnel -Community volunteers for organizing events and disseminating information.	Corporate Operating Budget	85% positive feedback from residents about the accessibility and helpfulness of communication channels established for inquiries and information dissemination has been received. Over time, there has been an improvement in property tax compliance rates within barangays.

4.0 Conclusion

The study underscores several key areas within the City Assessor's Office of Calamba City that warrant focused improvements to enhance operational efficiency and public service delivery. While the office has demonstrated a commendable dedication to internal staff development and active engagement with stakeholders, significant gaps persist in its responsiveness to property owners' concerns and communication with barangay captains. These deficiencies, particularly in communication frequency and effectiveness, highlight the pressing need for greater transparency, trust-building, and collaboration between the Assessor's Office and the community it serves. Despite these challenges, there is a strong alignment between assessor personnel and barangay captains in adhering to real property appraisal practices, indicating that the office upholds legal standards and disseminates necessary information effectively. The study also brings attention to the issues of tax delinquency and communication lapses, which call for comprehensive, strategic interventions. Notably, these challenges do not directly stem from the observance of real property appraisal laws, suggesting that while legal compliance is strong, there is room for improvement in community engagement and public communication strategies. The study presents an action plan focusing on raising public awareness, fostering effective communication, and implementing regular monitoring systems to ensure continued alignment with the city's appraisal system. Future research could explore more specific interventions to improve communication channels and tax delinquency management and evaluate these measures' long-term impact on public trust and service efficiency.

5.0 Contributions of Authors

Along with the genuine support from the thesis adviser, the author conceptualized and prepared instruments, collected, performed the statistical analysis, tabulated, and interpreted the data.

6.0 Funding

The research was self-funded by the researcher.

7.0 Conflict of Interests

No conflict of interest.

8.0 Acknowledgment

The author wishes to acknowledge everyone who contributed to this study.

9.0 References

Adhikari, N. R. (2020). Taxpayer Awareness and Understanding on Taxpayer Compliance in Nepal. Management Dynamics, 23(1), 163-168. https://doi.org/10.3126/md.v23i1.35574

Bhalla, N., Sharma, R. K., & Kaur, I. (2022). Effect of Tax Knowledge and Technological Shift in Tax System on Business Performance: A PLS-SEM Analysis. Sustainability (Switzerland), 14(16), 1-18. https://doi.org/10.3390/su141610217

Bornman, M., & Ramutumbu, P. (2019). A conceptual framework of tax knowledge. Meditari Accountancy Research, 27(6), 823–839. https://doi.org/10.1108/MEDAR-09-2018-0379

Fitri, N., & Chair, U. (2022). Tax Knowledge and Tax Morale in Tax Compliance. Jurnal Ilmiah Manajemen, Ekonomi, Dan Akuntansi, 6(2), 375–389.

Hantono. (2021). The Impact Tax Knowledge, Tax Awareness, Tax Morale toward Tax Compliance Boarding House Tax. International Journal of Research, 9(1), 49- 65. https://doi.org/10.29121/granthaalayah.v9.i1.2021.2966

Inam, B. (2022). Foreign Direct Investments and Tax Policy Current Evaluations for OECD Countries. Saudi J Econ Fin, 6(12), 422-430. https://doi.org/10.36348/sjef.2022.v06i12.004

Kurniawan, D. (2020). The Influence of Tax Education during Higher Education on Tax Knowledge and Its Effect on Personal Tax Compliance. Journal of Indonesian Economy and Business, 35(1), 57–72. https://doi.org/10.22146/jieb.54292

Lestari, T. & Wicaksono, M. (2017). Effect of Awareness, Knowledge and Attitude of Taxpayers Tax Compliance for Taxpayers in Tax Service Office Boyolali. International Journal of Economics, Business and Accounting Research, 1(1), 12-25. https://rb.gy/cw8ulf

Musfialdy, M. (2019). Relationship between investment decisions, environmental concerns and environmental performance on corporate social responsibility. Jurnal Aplikasi Manajemen, 17(1), 30-36. http://dx.doi.org/10.21776/ub.jam.2019.017.01.04

Oladipo, O., Nwanji, T., Eluyela, D., Godo, B., & Adegboyegun, A. (2022). Impact of tax fairness and tax knowledge on tax compliance behavior of listed manufacturing companies in Nigeria. Problems and Perspectives in Management, 20(1), 41–48. https://doi.org/10.21511/ppm.20(1).2022.04

Saro, J. M., Apat, J. Q., & Pareja, M. S. (2023). A Descriptive-Correlational Study of the Teachers' Motivation, Competences, and Perceptions in Writing Action Research. J Adv Educ Philos, 7(1), 14-24. https://doi.org/10.36348/jaep.2023.v07i01.003

.