

# Real property tax implementation and revenue collection efficiency of first-class municipalities in Nueva Vizcaya

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## Abstract

This study investigates the implementation of the Real Property Tax (RPT) system and its relationship to revenue collection efficiency in selected first-class municipalities of Nueva Vizcaya, specifically Bambang, Bayombong, and Solano. Employing a descriptive research design, the study assessed the operational practices, institutional capacities, and technological adoption of the Municipal Assessor's and Treasurer's Offices. The primary objectives were to determine the levels of RPT implementation and revenue collection efficiency, examine the strength of their correlation, and formulate actionable recommendations to improve fiscal governance. Data were gathered through structured surveys and on-site validations, involving 70 respondents chosen through stratified sampling techniques to ensure balanced representation. Findings revealed that RPT implementation was perceived as very highly implemented, especially in tax assessment procedures, highlighting strong adherence to valuation schedules and classification standards. Revenue collection efficiency was likewise rated as very effective, driven by robust internal control mechanisms, competent personnel, and consistent enforcement of tax laws. Nevertheless, the area of technology adaptation, particularly the integration of digital tools and geographic information systems (GIS) was found to be insufficiently developed, limiting operational efficiency in some municipalities. Statistical analysis confirmed a significant positive correlation between RPT implementation and revenue collection efficiency, implying that improvements in property tax systems directly contribute to better revenue outcomes. In response, the study recommends a comprehensive reform strategy focused on digital modernization, professional capacity-building, system integration, and strengthened taxpayer compliance. These measures are essential for enhancing the effectiveness, transparency, and sustainability of local government revenue administration.

**Keywords:** first-class municipality, real property tax, revenue collection efficiency

## **Real property tax implementation and revenue collection efficiency of first-class municipalities in Nueva Vizcaya**

### **1. Introduction**

It is through the provision of essential public services as well as its role in stimulating economic growth and citizen involvement in that development. Money is essential to good governance, and for the government the best long-term source of funding is taxes. Among others, the most substantial source of income of local government units (LGUs) is the real property tax (RPT), which it uses to sustain local infrastructure, deliver basic services, and promote inclusive growth. According to the United Nations General Assembly (2015), all United Nations member states, including the Philippines, have pledged to pursue the Sustainable Development Goals (SDGs) in response to the global demand for sustainable progress. These goals emphasize the importance of building resilient infrastructure, promoting decent work, fostering economic growth, and creating sustainable communities, among others. Achieving these objectives requires the effective mobilization of local resources—primarily through taxation.

This study aligns closely with key SDGs, particularly Goal 11: Sustainable Cities and Communities, Goal 16: Peace, Justice, and Strong Institutions, and Goal 17: Partnerships for the Goals. The efficient implementation and collection of real property tax (RPT) are crucial to advancing these targets. By ensuring that local government units (LGUs) such as those in Nueva Vizcaya have dependable and autonomous revenue streams, municipalities are better positioned to provide essential services, undertake inclusive urban planning, and invest in climate-resilient infrastructure. A sound RPT system enhances fiscal independence, fosters transparency, and builds institutional capacity—cornerstones of SDG 16, which advocates for effective, accountable, and inclusive governance at all levels. Furthermore, Goal 17 highlights the necessity of strengthening domestic resource mobilization to support sustainable development, especially in low- and middle-income countries. Local taxes, including real property tax, serve as a vital mechanism for reducing reliance on national subsidies or external financial assistance. When municipalities can generate revenue through equitable property valuation and efficient tax administration, they move toward long-term fiscal stability and greater policy autonomy.

At the national level, this research supports the goals of the National Higher Education Research Agenda (NHERA), particularly NHERA II's thematic areas on Governance and Public Policy and Poverty Reduction and Social Development. NHERA emphasizes the importance of data-driven research that assesses the effectiveness of public policies and institutional operations. By evaluating the implementation and efficiency of RPT collection in first-class municipalities, this study contributes to evidence-based decision-making that strengthens fiscal management. It also offers critical insights into the administrative, legal, and technological challenges that LGUs face—information that can inform reforms and capacity-building initiatives by agencies such as the Department of Finance (DOF) and the Bureau of Local Government Finance (BLGF).

This study contributes not only to the global agenda of sustainable development but also to national efforts aimed at reforming fiscal governance. Its findings are expected to aid local planning and decision-making in Nueva Vizcaya and inform broader policy directions in similar municipalities facing comparable governance and revenue challenges.

The World Bank has been promoting the establishment of RPT systems in developing countries through programs such as the Tokyo Development Learning Center (TDLC). The Bank supports knowledge sharing through Technical Deep Dives (TDDs) and promotes a value-based property tax as a sustainable and progressive revenue instrument. It underscores the importance to assess real estate at an accurate level, with strong institutional capacity, infrastructure, and reliable market data. Strong and lasting tax systems are needed in developing countries to fund infrastructure, public services and economic growth. This is according to the

International Monetary Fund (IMF). It offers policy advice and technical assistance to enhance tax administration, reform systems and stamp out evasion. Equitable, efficient, and growth-friendly taxation is a priority for IMF.

The Local Government Code of 1991 (Republic Act No. 7160) devolved numerous government responsibilities to LGUs, in effect, completing the decentralization of governance in the Philippines. This to include the authority to levy and collect local taxes, levies and assessments. Under this system, local government units (LGUs)- provinces, cities, municipalities, and barangays – were empowered to deliver public services on their own and to generate their own sources of revenue. A key aspect of local taxation is the Real Property Tax (RPT), an annual ad valorem tax levied on the assessed value of real properties such as land, buildings, and other improvements. The RPT is computed by multiplying the assessed value (derived from the fair market value and assessment level) by the applicable tax rate—typically 1% for provinces and 2% for cities and Metro Manila municipalities. While essential government buildings and non-profit institutions are exempted, property owners are obligated to settle these taxes annually or quarterly, with penalties imposed for late payments. Despite its importance in local revenue generation, real property tax collection remains a challenge for many LGUs. One major issue is the outdated and inaccurate Schedule of Market Values (SMVs), which fails to reflect the true value of real properties, thereby limiting revenue potential. To address this, the Department of Finance (DOF) endorses the Real Property Valuation and Assessment Reform Bill. This proposed legislation seeks to establish a uniform, equitable, and updated valuation system that enhances the capacity of LGUs to generate and mobilize resources. In addition, digitalization efforts such as the adoption of electronic payment systems and real property information systems are encouraged to streamline assessment and collection processes. These reforms aim to improve efficiency, transparency, and accountability in RPT administration (Department of Finance, 2023).

While numerous studies have explored real property tax (RPT) collection and implementation in the Philippines, most focus on highly urbanized cities or at the national level, often overlooking the specific dynamics and challenges faced by first-class municipalities in provincial settings (Uy, 2021; Congressional Policy and Budget Research Department, 2023). Moreover, there is a lack of localized, empirical research that integrates the assessment of real property tax implementation with the actual efficiency of revenue collection—particularly in the context of Nueva Vizcaya, a province that is gradually developing yet faces fiscal and administrative limitations. Existing literature commonly emphasizes broad issues such as tax compliance, valuation methods, or general tax policy (Department of Finance, 2022a). However, few studies have provided a holistic analysis of the interplay between legal frameworks, enforcement mechanisms, internal controls, and technological adaptation in relation to RPT performance at the municipal level (Fuentes & Salapa, 2023; Luzon, Paguio, & Omorog, 2022). Furthermore, there is insufficient focus on the role of local enforcement capacity, administrative capability, and digital innovation in maximizing revenue collection from real property taxes (DOF, 2022b).

In the case of first-class municipalities in Nueva Vizcaya, although they possess relatively higher income classifications compared to lower-class municipalities, there is limited available research on whether their revenue collection systems—particularly RPT—are efficient, effectively enforced, and aligned with local governance mandates under the Local Government Code of 1991 (Congress of the Philippines, 1991). A large knowledge gap that should be filled to orient local fiscal policy is directly determined by the absence of reliable and updated information on the implementation techniques, institutional constraints, and taxpayer conduct. Hence, this study aims to fill that gap by examining the implementation of real property taxes and the extent to which real property taxes contribute to the effectiveness of revenue collection in the first-class municipalities of Nueva Vizcaya. It will also explore areas that help in understanding how municipal taxation performance is influenced by institutional capacity, technology, policy, and enforcement. The results are expected to contribute to the capacity of local government to enhance the generation of local revenue and improve the provincial RPT system to support better local governance.

Improved income generation through effective implementation of RPT is increasingly being called for in provinces such as Nueva Vizcaya, notably in first-class municipalities like Bambang, Bayombong, and Solano. These communities have to expand their own tax base while also doing a better job of delivering public services. Real estate tax needs to be applied effectively and legally for local fiscal steadiness. Despite their well-characterized legal framework as well as a progressive real property tax, many LGUs still encounter difficulties including the weakness of enforcement mechanisms, absence of technological interface and human resources. These problems also hindered the efficiency of real property taxes, and the collection of appropriate property taxes. This study aims to assess the implementation of real property tax and its impact to the efficiency of the generation of revenue in the first-class municipalities of Nueva Vizcaya. It explores the influence of institution, ICT, administration and law on tax performance. The study can offer enlightening messages for local policy formulation, capacity-building efforts, and budgetary adjustments based on the best practices and the blockers.

Nueva Vizcaya is best for its rich agro-environment, diverse culture, and booming economy. First-class was awarded to a trio of its fifteen municipalities, namely Bambang, Bayombong, and Solano. Classified under the income category of the Department of Finance, these LGUs exhibited relatively sound economic development and are expected to contribute significantly to local revenue in the province. These LGUs still face difficulties in maximizing their utilization of RPT based on revenue classification. However, its promise as a self-sustaining revenue source is tempered by issues such as obsolete SMVs, under-compliance of taxpayers, insufficient enforcement and minimal application of technology in assessing and collecting taxes. The function of treasury and assessment departments in the local government context often tend to have capacity issues, lack of efficiency in internal control, and a need for more institutionalized coordination. The BLGF and DOF are however still pursuing better tax administration and valuation enhancements to further enhance the generation of local income. However, there is limited localized research evaluating the effectiveness of RPT implementation and the collection efficiency within first-class municipalities of Nueva Vizcaya. While national frameworks and technical guidance exist, their translation into effective local practices remains inconsistent. Moreover, this research is firmly aligned with the Graduate School Research Agenda of Nueva Vizcaya State University – College of Arts and Sciences, which emphasizes key thematic areas such as organizational development, public financial policies, and performance management. By assessing the implementation of Real Property Tax (RPT) and its impact on revenue collection efficiency, the study provides evidence-based insights that directly contribute to the improvement of local fiscal governance, especially within the context of first-class municipalities like Bambang, Bayombong, and Solano.

These municipalities, while economically progressive compared to other areas in the province, continue to grapple with issues such as outdated property valuation systems, inadequate enforcement capacity, and limited technological integration. The findings of this study are designed to guide local policymakers, finance officers, treasurers, and assessors in developing more data-informed strategies to strengthen tax administration, enhance compliance, and maximize local revenue streams. Importantly, the study's contributions are not purely academic; they bear practical significance for the socio-economic development of local communities. Improved RPT collection enables LGUs to generate more resources to fund public services, infrastructure, and social programs, thereby promoting inclusive and sustainable development—a goal consistent with both the Sustainable Development Goals (SDGs) and the university's broader development mandate. Ultimately, this research aims to bridge the persistent gap between legal tax frameworks and their practical implementation, fostering a culture of transparency, accountability, and innovation in local governance.

## 2. Related Literature

The theory of public finance and the theory of decentralization, which analyze the mechanism both of local tax generation and government efficiency, are the theoretical basis of this study. The Theory of Public Finance, formulated by Musgrave and Musgrave (1989), provides a foundational economic rationale for the imposition and administration of taxes in a democratic society. This theory posits that the primary role of taxation is to

generate revenue for financing the production and distribution of public goods and services that cannot be efficiently provided through market mechanisms alone. It also stresses the principles of equity, efficiency, and transparency in fiscal policy, including the mechanisms through which taxes are assessed, collected, and allocated.

In the context of this study—focusing on the implementation of Real Property Tax (RPT) and revenue collection efficiency in the first-class municipalities of Bambang, Bayombong, and Solano in Nueva Vizcaya—the Theory of Public Finance provides a vital analytical lens. These municipalities, classified under the first income class by the Department of Finance, are expected to exercise greater fiscal autonomy and responsibility under the Local Government Code of 1991 (RA 7160). Consequently, local taxation, particularly RPT, becomes a critical instrument for ensuring sustainable local development. From the perspective of public finance, RPT serves as a stable and predictable source of locally generated income. It funds essential services such as public infrastructure, waste management, local health programs, and educational support—often including counterpart funding or logistical aid for local DepEd divisions. This linkage between taxation and service delivery underscores the social contract between citizens and local governments. As such, the theory advocates for an efficient and accountable tax system, where improvements in tax administration—such as accurate property appraisal, streamlined billing, digitalized collection, and effective enforcement—contribute directly to revenue optimization and service provision.

For first-class municipalities, applying the Public Finance framework entails evaluating the internal capacity of the local government units (LGUs) to administer RPT effectively. This includes assessing the adequacy of human resources, the availability of technological infrastructure, and the strength of internal control systems. In line with Musgrave's (1989) concept of allocative efficiency, these LGUs must ensure that RPT revenues are utilized to address the most pressing public needs, thereby promoting social equity and economic growth at the local level. Moreover, the Theory of Public Finance highlights the importance of transparency and accountability in taxation. In this study, such principles are operationalized through the analysis of taxpayer awareness, compliance behavior, and satisfaction with local services. If taxpayers perceive that their payments are used appropriately, they are more likely to support and comply with RPT regulations, thus improving collection efficiency.

In sum, the Theory of Public Finance supports this study by offering a conceptual framework to evaluate how local governments can maximize real property tax revenues through efficient implementation and responsible fiscal governance. It emphasizes the role of taxation not only as a fiscal tool but also as a means to empower local institutions, improve service delivery, and strengthen citizen engagement—all of which are essential for achieving effective local governance and sustainable development in first-class municipalities.

Uy's study provides a comprehensive analysis of how various institutional and economic variables influence RPT collection performance in Metro Manila LGUs from 2014 to 2018. The findings are particularly useful in understanding the nuanced relationship between fiscal incentives and administrative efficiency. The study observed that:

Internal Revenue Allotment (IRA) positively influences RPT collection, suggesting that fiscal support from the national government may encourage LGUs to optimize local revenue sources.

Local economic development, counterintuitively, had a negative effect on RPT collection, which may be due to disparities between actual growth and updated property valuation systems. The efficiency index of governance positively affected collection performance, underscoring the importance of transparent, capable local institutions. The lack of regular updates to the Schedule of Market Values (SMVs) severely hindered the effectiveness of RPT collection.

This research aligns, especially as it emphasizes the impact of administrative efficiency and outdated property assessments on RPT collection. Uy's findings reinforce the need for improved internal controls and data

management, regular SMV revisions and a more strategic alignment between economic growth and property valuation practices. Villaroman's study explores the operational and institutional limitations affecting RPT collection in a provincial context, focusing on Nueva Ecija. It evaluated whether the provincial treasurer's office adhered to the basic principles of a sound tax system—efficiency, adequacy, equity, and administrative simplicity. The study emphasized the outdated nature of property assessments, which undermined the accuracy of tax liabilities, Lack of capacity-building and technical training among tax personnel, resulting in administrative inefficiencies, The absence of integrated systems that could streamline RPT assessment, billing, and collection processes.

This study is especially applicable because it is set within a provincial LGU context similar to Nueva Vizcaya. The findings emphasize that a sound taxation system must be supported by capable human resources and modern technology—elements which your study evaluates under internal LGU factors like Personnel qualifications and adequacy, use of ICT in tax administration, Strength of internal controls. This recent and large-scale study by PIDS analyzed property tax performance across major Philippine cities. It found that a significant gap in local revenue potential—an estimated ₱23.1 billion—was due to the failure to periodically update the Schedule of Market Values (SMVs). Key conclusions include the lack of compliance with the triennial schedule of SMV revisions, as mandated by the Local Government Code, leads to revenue losses and unfair taxation, LGUs that invested in digital systems and data transparency collected more RPT and had higher taxpayer satisfaction. The study calls for institutional reforms including centralized guidance, capacity development, and better enforcement mechanisms at the local level.

This PIDS report validates the central claim of your research: that RPT implementation in first-class municipalities suffers from structural inefficiencies and valuation problems, regardless of their income classification. A national benchmark for potential revenue losses due to outdated SMVs, Evidence supporting the push for digital transformation and institutional strengthening, Reinforcement of the link between technical reforms and collection performance—crucial for guiding policy recommendations at the LGU level in Nueva Vizcaya. Each of these studies enhances the foundation of your research by illustrating both common and unique challenges faced by LGUs across varying contexts. They affirm the relevance of the Theory of Public Finance, particularly its emphasis on revenue adequacy, administrative efficiency, equity, and fiscal responsibility. Your thesis can therefore build on these works by Localizing their findings to the socio-economic and administrative realities of Bambang, Bayombong, and Solano, demonstrating how institutional reforms and updated assessments can significantly improve local fiscal performance, proposing sustainable, context-sensitive RPT implementation models for first-class municipalities based on best practices and empirical evidence.

This World Bank study conducted a cross-country empirical analysis using data from developed countries, including the United States, Canada, Australia, and Chile, covering a ten-year period (2006–2016). The findings consistently demonstrated that effective tax administration practices, such as regular property revaluation, efficient collection systems, and transparent enforcement mechanisms, are key determinants of successful property tax systems. The study also emphasized that countries with updated cadastres, automated systems, and well-trained tax officials generated significantly higher local revenues through property taxation.

This study offers critical insights for your research on the efficiency of real property tax (RPT) implementation in Nueva Vizcaya. It aligns with Musgrave and Musgrave's (1989) Theory of Public Finance, which promotes taxation as a primary mechanism for financing public goods through equitable and efficient systems. The World Bank's findings underline the importance of institutional capability—particularly in updating Schedule of Market Values (SMVs), enhancing technological adoption, and professionalizing local tax administration—all of which are essential to improving RPT efficiency in first-class municipalities like Bambang, Bayombong, and Solano. By benchmarking against international best practices, your study can argue for localized reforms in property assessment and collection strategies in line with global standards.

In this comprehensive paper, Slack discusses both the theoretical foundations and real-world application of

property taxation. She asserts that property tax is one of the most stable, predictable, and visible sources of revenue for local governments. However, its potential is often underutilized due to political resistance, outdated valuations, and inequitable implementation. Slack emphasizes the importance of administrative efficiency, public transparency, and fair assessments to ensure both the effectiveness and acceptability of property tax systems. Her work is grounded in the Theory of Public Finance, highlighting the need for a balance between efficiency, equity, and accountability in tax policy design and administration.

Slack's emphasis on administrative efficiency and equitable implementation provides a clear theoretical and practical basis for evaluating the RPT systems in your target municipalities. In Nueva Vizcaya, issues such as delayed SMV revisions, inadequate staffing, and low taxpayer compliance mirror the challenges identified by Slack in global contexts. Incorporating her insights supports your argument that real property tax in the Philippines—while structurally in place—requires capacity-building, modernization, and improved taxpayer communication to fulfill its role in supporting local governance and development.

Rosengard's widely cited work dissects the widespread unpopularity and complexity of property taxation, even as it remains a crucial tool for local revenue generation. He identifies several systemic barriers to effective property taxation, including inequities in valuation, administrative bottlenecks, and political reluctance to enforce collections. Despite these challenges, Rosengard argues that when properly reformed, property tax systems can be highly efficient, equitable, and less distortionary compared to other forms of taxation. The study supports public finance theory by emphasizing the need for sound policy design and strong administrative systems to optimize tax performance and public service delivery.

Rosengard's findings directly inform the practical dimension of your thesis. In the Philippine context—and specifically in first-class municipalities of Nueva Vizcaya—many of the barriers he describes persist, such as inefficient enforcement, outdated valuation systems, and limited public trust in tax institutions. Applying his principles to your research underscores the need for systemic reform, including better valuation methodologies, stronger institutional transparency, and greater community engagement to foster taxpayer compliance. His work supports your study's advocacy for a more efficient, accountable, and service-oriented RPT system that aligns with the objectives of sustainable local development.

All three global studies support the core arguments of your research by providing evidence-based validation of the Theory of Public Finance, highlighting the central role of administrative efficiency, technological modernization, and equitable valuation, demonstrating that improvements in property tax systems lead to enhanced local revenue and public service delivery—a central aim of your study in evaluating first-class municipalities in Nueva Vizcaya.

The Theory of Decentralization, as articulated by Wallace E. Oates (1972), posits that local governments are better positioned to respond to the specific needs and preferences of their constituents compared to centralized national governments. The theory suggests that the delegation of decision-making authority, particularly in fiscal matters, enhances the efficiency, responsiveness, and accountability of public service delivery. Within this framework, fiscal decentralization is critical—it involves transferring both revenue-raising authority and expenditure responsibilities to subnational governments, thereby empowering them to manage local resources more effectively.

In the Philippine context, the Local Government Code of 1991 (Republic Act 7160) institutionalizes decentralization by granting Local Government Units (LGUs) the power to levy and collect Real Property Taxes (RPT). This legislative framework operationalizes the decentralization theory by assigning fiscal responsibilities to local governments, particularly first-class municipalities, which are expected to demonstrate higher fiscal capacity and autonomy due to their economic and institutional resources.

For the municipalities of Bambang, Bayombong, and Solano—all classified as first-class by the Department of Finance—this theoretical lens is highly applicable. These municipalities possess relatively broader tax bases,

more advanced institutional frameworks, and better access to trained personnel and technology, enabling them to effectively implement and manage real property tax systems. The Theory of Decentralization underscores that such localized control over revenue sources like RPT not only allows LGUs to align fiscal policies with local priorities but also encourages innovation, efficiency, and accountability in tax administration.

More specifically, the theory supports the idea that local decision-makers, being closer to the constituents and the tax base, can ensure more accurate property valuation and assessments based on local economic conditions and land-use dynamics. Design context-appropriate collection mechanisms, including digital innovations or incentives tailored to local taxpayers. Mobilize revenues to directly address community-specific needs, such as local infrastructure, basic education (in collaboration with DepEd), health services, and waste management, thereby reinforcing the social contract between the LGU and its residents.

Moreover, decentralization promotes inter-LGU competition, which can incentivize higher performance in tax collection and service delivery. When municipalities see neighboring LGUs collecting more efficiently and reinvesting revenues in visible public goods, it can create pressure and motivation to reform and modernize their own tax systems.

However, the effectiveness of decentralization, as theorized by Oates, depends on the capacity of LGUs to utilize the fiscal powers granted to them. In the case of first-class municipalities, the expectation is that they have the human, technical, and institutional capabilities to implement robust RPT systems. The Up-to-date cadastral systems and Schedule of Market Values (SMVs), Competent assessment and treasury staff trained in valuation and enforcement, Digital platforms for billing and payment, Transparent reporting mechanisms to maintain taxpayer trust and enhance compliance.

In the context of your study, the Theory of Decentralization provides a strong conceptual foundation for assessing how the delegation of tax authority to LGUs—especially those with greater resources—can influence the efficiency, equity, and sustainability of local revenue collection. It helps frame the investigation of internal LGU practices and capacities that affect RPT implementation, including governance structures, administrative competencies, and fiscal accountability mechanisms.

Ultimately, the application of this theory highlights that effective real property tax administration is both a product and a test of fiscal decentralization. When local governments are given sufficient autonomy and operate under sound public finance principles, they are more likely to develop responsive and efficient tax systems that fund meaningful local development. This directly aligns with the goals of your research, which aims to evaluate the RPT implementation practices and revenue collection efficiency of first-class municipalities in Nueva Vizcaya.

Republic Act No. 12001, also known as the Real Property Valuation and Assessment Reform Act (RPVARA), was signed into law in 2024 to institutionalize a uniform real property valuation system in the Philippines. According to Lawphil and commentaries from Grant Thornton (2024), this reform is a critical move toward modernizing property tax administration. The RPVARA ensures that Local Government Units (LGUs), especially first-class municipalities, adopt a single valuation base aligned with international standards, thereby reducing discrepancies and improving fiscal transparency.

The RPVARA strengthens decentralization by enhancing the fiscal capacity of LGUs such as Bambang, Bayombong, and Solano. It allows them to administer more accurate assessments, optimize tax bases, and finance local services independently, as advocated by the Theory of Decentralization.

The Union of Local Authorities of the Philippines (ULAP) reiterated in 2023 the urgent need to reform real property tax policies, particularly focusing on updating the schedule of market values and simplifying collection procedures. According to the Philippine News Agency, ULAP emphasized that empowering LGUs to enhance their own tax administration systems is vital to increasing local revenues and ensuring efficient public service delivery.

This advocacy aligns with the decentralization theory, which promotes fiscal self-reliance at the local level. It reflects how first-class municipalities can achieve greater autonomy and service responsiveness through improved RPT management systems.

A 2024 study published in the *Multidisciplinary International Journal of Research and Development (MIJRD)* reviewed national and local literature on RPT collection practices. The research identified key administrative barriers including outdated market values, weak enforcement systems, and limited technical capacity at the LGU level. It proposed institutional and digital reforms to enhance equity, compliance, and collection efficiency.

This literature review supports the Theory of Decentralization by emphasizing the need for LGUs to exercise stronger fiscal governance. In the case of first-class municipalities, such improvements can significantly impact their ability to <https://www.mijrd.com/papers/exploring-real-property-tax-dynamics>

The International Monetary Fund (IMF) released a 2024 guide focused on enhancing property tax systems across developing countries. It recommends empowering local governments to handle assessments, valuation, and enforcement. Decentralized administration, the report argues, is more responsive to local realities and encourages better compliance and service matching. This guide validates how decentralization fosters efficient RPT implementation, supporting the idea that local governments like first-class municipalities in the Philippines can be more effective revenue collectors when granted sufficient authority (Norregaard, J., & Ahmad, E., 2024).

This empirical study analyzed property markets in Sweden and concluded that local taxation levels and the quality of public services significantly influence property values. The researchers highlighted that subnational governments that manage both taxation and service delivery show more responsive and accountable governance, a key feature of decentralization. This study reinforces the relevance of decentralization theory in local taxation. It shows that first-class municipalities, when enabled, can increase RPT effectiveness through better public service delivery and transparency (Andersson, J., & Lindh, M., 2024).

According to Popescu, L., & Matei, A., (2024) the study from Romania documents how municipal governments embraced digital technologies to streamline service delivery, including real property tax transactions. The digital shift not only improved efficiency but also boosted taxpayer satisfaction and compliance. The Romanian experience demonstrates how decentralized local governance, empowered by digital tools, can enhance RPT collection systems. It offers a practical model for Philippine municipalities to emulate.

### 3. Methodology

**Research Design.** This study utilized a quantitative research design to collect the data required for addressing the specific questions presented in the first chapter. Quantitative research is characterized by the application of statistical, mathematical, and computational methods to analyze data and generate objective results. Its main objective is to measure the extent of a particular issue and determine its significance by enabling generalization of the findings to a broader population (Gay et al., 2009). The researcher firmly believed in the significance of quantitative research as a valuable tool for the quantitative evaluation of administrative and fiscal performance through objective measurement of key indicators such as comprehensive appraisal, comprehensive assessment, personnel capacity, technology adaptation, internal control system, and enforcement of law. Quantitative research is characterized by a systematic and objective approach to data collection and analysis. It enables the collection of numerical data that can be subjected to statistical techniques, thereby minimizing biases and subjectivity. The study utilizes quantitative research because it facilitates the measurement of specific variables and outcomes associated with real property tax implementation and revenue collection efficiency. Consequently, it allows the researcher to assess the effectiveness of various interventions and strategies aimed at enhancing these outcomes.

**Research Environment.** This study was conducted in the first-class municipalities of Bambang,

Bayombong, and Solano in the province of Nueva Vizcaya. These municipalities were chosen due to their classification as first-class LGUs, which is based on their average annual income and their critical role in the province's economic development. As first-class municipalities, they are expected to have relatively advanced systems of governance, including the administration of Real Property Tax (RPT) and mechanisms for efficient revenue collection. Each municipality operates a Municipal Assessor's Office and a Municipal Treasurer's Office, which are central to the implementation of the RPT system. These offices are responsible for property appraisal, assessment, tax mapping, billing, and collection. The operational capacity of these offices, including personnel, technology, and adherence to legal frameworks, is considered a vital part of the study. The study environment is further characterized by varying degrees of urbanization, economic activity, and administrative capability, providing a rich context for comparative analysis. In this study, the municipalities of Bambang, Bayombong, and Solano in Nueva Vizcaya have exhibited notable developments in their approaches to real property tax (RPT) implementation and revenue collection efficiency. As first-class municipalities, each local government unit (LGU) has undertaken varied strategies and innovations to enhance fiscal performance and strengthen administrative capacity in response to increasing economic and governance demands.

**Respondents of the Study.** The respondents of this study consisted of 70 permanent employees from the Municipal Treasurers' and Assessors' Offices of the local government units (LGUs) of Bambang, Bayombong, and Solano. This figure represents 84.34% of the total population of 83 employees.

**Sampling Procedure.** To ensure the representativeness and reliability of the data gathered for this study, a combination of Slovin's formula and stratified sampling technique was employed in determining and selecting the respondents. The sampling procedure was designed to capture a proportionate and inclusive representation of the population across the identified municipalities. The target population included municipal employees directly involved in real property tax implementation and revenue collection activities, such as assessors, treasurers, revenue officers, and administrative staff, across all first-class municipalities in Nueva Vizcaya. The total population was first estimated and validated through coordination with the respective Municipal Assessor's and Treasurer's Offices.

**Research Instrument.** To gather salient data for the study and to answer the specific questions posted in chapter 1, the following research instruments were used:

- **Real Property Tax Implementation Questionnaire**– This is a 45-item questionnaire developed by the Bureau of Local Government Finance's guidelines, and subjected expert validation by the members of the oral examination committee.
- **Revenue Collection Efficiency Questionnaire (RCEQ)**- This is a 24-item questionnaire based on the study by Adenya and Maturi (2001), said instrument is universal in nature and it was adapted by the researcher. It was contextualized in Philippine setting and subjected to expert validation by the members of the oral examination committee.

**Statistical Treatment of Data.** The data gathered through the questionnaire were analyzed using following statistical tools.

- **Mean.** This was utilized to determine the perceived real property tax implementation and revenue collection efficiency of the respondents.
- **Pearson  $r$**  – This was used to determine the significant relationship between the respondents' perceived real property tax implementation and revenue collection efficiency.

#### 4. Results and Discussion

**Problem 1.** What is the level of assessment of the respondents on the real property tax implementation of first-class municipalities along comprehensive appraisal and comprehensive assessment?

**Table 1**

*Respondents' assessment on the level of Real Property Tax Implementation*

Real Property Tax Implementation	Area Mean	Qualitative Description
Real Property Appraisal for Taxation Purposes	4.19	Highly Implemented
Assessment of Real Property Tax	4.29	Very Highly Implemented
Grand Mean	4.24	Very Highly Implemented

The respondents perceived that the overall level of Real Property Tax (RPT) implementation in the first-class municipalities of Nueva Vizcaya was very highly implemented, garnering a grand mean of 4.24. This rating indicates that RPT systems in municipalities such as Solano, Bayombong, and Bambang are functioning effectively, with the majority of processes aligned with legal and procedural standards. Among the various components evaluated, the Assessment of Real Property Tax obtained the highest mean of 4.29, reflecting outstanding performance in areas such as property classification, preparation of tax declarations, and adherence to assessment schedules mandated by the Local Government Code. This demonstrates that municipalities are prioritizing accuracy and timeliness in assessing real property, which is crucial for establishing fair and reliable tax obligations.

However, while assessment was rated as exemplary, the Real Property Appraisal for Taxation Purposes scored slightly lower with a mean of 4.19, still within the “very high” implementation category but indicative of potential areas for improvement. In particular, the study points to challenges related to the updating of the Schedule of Market Values (SMVs) and the limited integration of Geographic Information Systems (GIS) into the appraisal process. These aspects are essential for ensuring that property valuations reflect current market conditions and geographical realities. Without regular updates and spatially informed data, property values may become obsolete, undermining the fairness and efficiency of the tax system. The findings highlight the need for continuous modernization of appraisal practices through digital mapping, automated data management, and valuation models to maintain the credibility of the RPT system and strengthen its implementation across all LGUs.

**Problem 2.** What is the level of assessment of the respondents on the revenue collection efficiency along personnel capacity, technology adaptation, internal control system, and enforcement of laws?

**Table 2**

*Respondents' assessment on the level of Revenue Collection Efficiency*

Revenue Collection Efficiency	Area Mean	Qualitative Description
Personal Capacity	4.27	Very Effective
Technology Adaptation	3.94	Effective
Internal Control System	4.40	Very Effective
Enforcement of Law	4.36	Very Effective
Grand Mean	4.24	Very Effective

The respondents perceived that the overall revenue collection efficiency in the first-class municipalities of Bambang, Bayombong, and Solano was likewise very effective, sharing the same grand mean of 4.24. This suggests that these municipalities have developed and are maintaining well-functioning revenue systems that support fiscal sustainability. Among the four dimensions assessed, the Internal Control System was the most highly rated, earning a mean score of 4.40. This high rating underscores the municipalities' commitment to transparency, accountability, and proper monitoring of financial transactions. Strong internal controls also mitigate the risk of misappropriation and errors, thereby ensuring integrity in revenue management.

The Enforcement of Law dimension followed closely with a mean of 4.36, indicating that LGUs are effectively implementing legal mechanisms to ensure taxpayer compliance. This includes the consistent issuance of notices of delinquency, imposition of penalties, and, when necessary, legal recourse. Such measures reinforce the rule of law and demonstrate government resolve in enforcing tax obligations.

The dimension of Personnel Capacity also received a “very effective” rating of 4.27, emphasizing the skill and competency of staff involved in RPT assessment and revenue collection operations. However, while personnel are deemed competent, the findings suggest a need for continuous professional development to address emerging challenges and adopt new technologies. Upskilling staff through workshops, training seminars, and certification programs is necessary to improve service delivery and responsiveness.

The lowest-rated dimension was Technology Adaptation, with a mean score of 3.94. This rating, while still positive, reveals partial implementation of information and communication technology (ICT) systems in some municipalities. In particular, Bambang and Bayombong still rely on manual processes for several critical operations, limiting the speed and accuracy of revenue tracking and data management. On the other hand, Solano has demonstrated more advanced digital integration. These disparities highlight the need for broader ICT adoption, including online payment systems, digital tax mapping, and integrated property databases to enhance operational efficiency and taxpayer convenience.

**Problem 3.** Is there a significant relationship between the respondents’ assessment on the level of real property tax implementation and revenue collection efficiency?

**Table 4**

*Summary of correlation between the respondents’ assessment on the level of Real Property Tax Implementation and Revenue Collection Efficiency*

(N=70)

Variables correlated	Computed r – value	p-value	Critical value	r	Remarks
Real Property Tax Implementation					
vs					
Revenue Collection Efficiency	0.54 (moderate positive correlation)	0.000	0.2335		Significant
Degrees of freedom: 68		Level of Significance: 0.05			

The analysis revealed a positive and statistically significant relationship between Real Property Tax (RPT) implementation and revenue collection efficiency in the first-class municipalities of Nueva Vizcaya. Through correlation analysis using the Pearson correlation coefficient, the study established a strong association, meaning that improvements in property appraisal and assessment are directly linked to enhanced efficiency in collecting taxes. The coefficient of determination further confirmed that a significant proportion of the variance in revenue collection outcomes is explained by the quality of RPT implementation.

These findings validate the fundamental principle in public finance that effective tax administration leads to better revenue performance. The more accurate, timely, and transparent the appraisal and assessment processes are, the more likely it is that taxpayers will comply voluntarily, and LGUs can collect revenues efficiently. This correlation reinforces earlier studies suggesting that reforming tax administration—through improved valuation systems, use of digital tools, and professionalized personnel—plays a vital role in strengthening fiscal capacity at the local level.

Overall, the study provides empirical support for the idea that strong RPT systems are essential for local fiscal sustainability, particularly in municipalities that aim to achieve inclusive development and improved public service delivery. Investments in appraisal modernization, staff training, and digital innovation will thus

have multiplier effects not only on tax revenues but also on public trust and institutional credibility.

**Problem 4.** Based on the findings, what intervention can be evolved to address the findings of the study?

Despite the overall positive findings, the study identified key gaps in the implementation of Real Property Tax and revenue collection efficiency in the first-class municipalities of Nueva Vizcaya. One of the major concerns is the outdated Schedule of Market Values (SMVs) used in property appraisals. Regular revisions of SMVs are mandated under the Local Government Code to ensure that valuations reflect prevailing market conditions, but many municipalities have not updated their schedules in several years. This compromises the fairness and accuracy of tax assessments. Another critical issue is the limited use of Geographic Information Systems (GIS) in property appraisal, especially in less digitally advanced LGUs. GIS offers spatial analysis and mapping capabilities that are essential for accurate property identification, boundary delineation, and location-based valuation. Its limited integration hinders the modernization of the appraisal process.

In terms of technology adaptation, the study revealed inconsistencies. While Solano has made significant strides in developing ICT-based solutions for assessment and collection, Bambang and Bayombong continue to rely on labor-intensive, manual methods that reduce efficiency and increase vulnerability to errors and corruption. There is a clear need for fully integrated digital infrastructure across all municipalities to standardize and streamline processes. Furthermore, there is a recognized lack of institutionalized training programs for assessment and treasury personnel. As tax laws and administrative tools evolve, so must the knowledge and competencies of those who implement them. LGUs must prioritize the professionalization and continuous development of their human resources to ensure that tax policies are executed effectively and consistently.

Lastly, the study emphasized the importance of improving taxpayer education and promoting voluntary compliance. Many taxpayers are either unaware of their obligations or distrustful of local tax systems. To build public confidence, LGUs must engage in transparent, proactive communication and provide accessible information on how taxes are assessed, collected, and utilized. Civic campaigns, online portals, and participatory governance mechanisms can help cultivate a tax-compliant culture. Addressing these gaps requires a comprehensive, multi-dimensional strategy that combines technology modernization, capacity-building, institutional reform, and citizen engagement. Such an integrated approach will not only enhance Real Property Tax implementation and revenue efficiency but also contribute significantly to fiscal resilience, service delivery, and long-term local development.

## 5. Conclusions

1. The respondents perceived that Real Property Tax (RPT) implementation in the first-class municipalities of Nueva Vizcaya is highly effective, particularly in the area of property assessment, which shows strong compliance in classification, tax declaration, and schedule adherence. However, the appraisal component requires improvement, especially in updating market values and integrating GIS. This highlights the need to modernize appraisal practices to further strengthen overall RPT implementation.

2. The respondents perceived revenue collection efficiency in the first-class municipalities as very effective, with strong financial monitoring, audit practices, and consistent enforcement of tax laws. Staff were viewed as competent, though continued training and development are needed. The lowest performance was noted in technology adaptation, indicating partial digitization and the need for broader ICT integration. These findings emphasize the importance of investing in digital infrastructure and ongoing capacity-building to enhance and sustain local revenue collection.

3. A positive and significant relationship was found between RPT implementation and revenue collection efficiency in the first-class municipalities of Nueva Vizcaya. This highlights those improvements in appraisal and assessment processes directly enhance revenue outcomes, confirming that strengthening RPT systems is vital for improving local government fiscal performance, sustainability, and overall development.

4. The study identified key gaps that limit the full effectiveness of RPT implementation and revenue collection. These include outdated property valuations, limited GIS usage, inconsistent technology adoption, and inadequate digital systems. There is also a critical need for continuous staff training and improved taxpayer education. Addressing these issues through an integrated approach—focusing on modernization, capacity-building, updated valuations, and citizen engagement—is essential to strengthen the tax system and ensure long-term fiscal sustainability.

### **Recommendations**

- To further improve RPT implementation, it is recommended that local government units (LGUs) invest in the modernization of appraisal systems. This includes the regular updating of the Schedule of Market Values (SMVs) and the adoption of Geographic Information Systems (GIS) for property mapping and valuation. These actions will ensure that property values are accurate, equitable, and reflective of current market conditions, thereby strengthening the appraisal component of RPT administration.
- To sustain and enhance revenue collection efficiency, LGUs should strengthen their digital infrastructure, particularly in municipalities that still rely on manual or hybrid systems. It is also recommended that LGUs institutionalize continuous training and professional development programs for personnel in the treasurer's and assessor's offices. This will maintain staff competency in the face of evolving fiscal technologies and procedures. Technology adaptation should be prioritized to automate processes and improve data accuracy, efficiency, and taxpayer convenience.
- Given the established positive and significant relationship between RPT implementation and revenue collection efficiency, it is strongly recommended that LGUs prioritize improvements in appraisal and assessment procedures as a strategic approach to enhance revenue performance. Strengthening tax administration practices through accurate property records, standardized valuation, and timely assessments will directly contribute to improved fiscal outcomes and support local economic development.
- To address the identified gaps, LGUs must implement a comprehensive and integrated intervention program. This program should focus on: Modernizing technology systems by adopting fully digital processes for appraisal, billing, and payment; Capacity-building through formal training, certification, and career development for RPT personnel; Regularly updating SMVs in accordance with national guidelines (e.g., RA 12001); and Enhancing taxpayer education and engagement to improve compliance and public trust in the system. These combined efforts will help build a more responsive, efficient, and sustainable local tax administration system.

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