



Innovative Strategies and Challenges in Local Treasury Operations: A Policy-Oriented Study in The Province of Albay

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ABSTRACT

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The post-pandemic world has accelerated the global shift towards digital governance, placing unprecedented emphasis on the modernization of local treasury operations (LTO). Studies by the International Monetary Fund (IMF, 2022) highlight the urgent need for governments to leverage digital technologies to enhance revenue mobilization and fiscal transparency. The IMF's Fiscal Monitor reports emphasize that digital transformation, when implemented effectively, can significantly improve tax administration and reduce corruption risks. This mixed-methods study explores the innovative strategies and operational challenges within the treasury offices of Legazpi, Ligao, and Tabaco in the Province of Albay. Findings reveal a “fiduciary-operational paradox,” where high regulatory compliance is maintained despite a core-infrastructure bottleneck: 65% of treasury functions remain manual and 90% of the workforce lacks



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specialized IT competencies. Statistical analysis using the Kendall Coefficient of Concordance (W) demonstrated a significant and unanimous provincial consensus among respondents regarding the prioritization of modernization strategies, indicating high institutional readiness for reform. To bridge the gap between regulatory compliance and operational efficiency, the study proposes the Albay Resilient Treasury Modernization (ARTM) paradigm. This five-pillar policy intervention institutionalizes digital standards, mandates competency-based human resource development, and integrates disaster risk financing into local law. These findings provide a scalable framework for Local Chief Executives to enhance revenue generation and foster sustainable, technology-driven governance in the Philippines.

INTRODUCTION

The post-pandemic world has accelerated the global shift towards digital governance, placing unprecedented emphasis on the modernization of local treasury operations. Studies by the International Monetary Fund (IMF, 2022) highlight the urgent need for governments to leverage digital technologies to enhance revenue mobilization and fiscal transparency. This global directive is reinforced within the Southeast Asian context by the ASEAN Guidelines on Good Regulatory Practices (ASEAN, 2021), which mandate that member states adopt digitalized, transparent, and evidence-based administrative frameworks to ensure public sector efficiency. The IMF's Fiscal Monitor reports emphasize that digital transformation, when implemented effectively, can significantly improve tax administration and reduce corruption risks. Furthermore, a 2023 report by the United Nations Department of Economic and Social Affairs (UNDESA) underscores the importance of building resilient local financial systems capable of withstanding global economic shocks and climate-related disasters. This necessity for resilience is a cornerstone of the ASEAN 2045: Our Shared Future vision, which advocates for "resilient and innovative" governance structures to navigate future economic volatility (ASEAN, 2025). As noted by UNDESA (2023), innovative strategies such as data-driven revenue forecasting are no longer optional but essential for ensuring the sustainability of local public finances. The focus is on creating adaptable systems that can rapidly respond to crises, while simultaneously improving long-term fiscal health.

This report stresses that innovative strategies, such as data-driven revenue forecasting and robust risk management frameworks, are essential for ensuring the sustainability of local public finances in an increasingly volatile global environment. The focus is on creating adaptable systems that can rapidly respond

to crises, while simultaneously improving long-term fiscal health.”

The concept of ‘smart cities’ has also gained traction, with a focus on integrating technology into local governance. Research by the Organization for Economic Co-operation and Development (OECD, 2021) on digital government and open data indicates that the adoption of open data initiatives can enhance citizen engagement and improve accountability in public financial management. Recent studies also highlight the importance of international collaboration in sharing best practices and developing standardized frameworks for digital treasury operations. Specifically, reports from the World Bank (2022) on public sector modernization emphasize the role of peer learning and knowledge exchange in driving innovation. These global trends necessitate a comprehensive understanding of how local treasury operations can adapt to these changes, while maintaining financial stability and promoting inclusive development.”

While this study, it can be aligned with the 2030 Agenda for Sustainable Development (United Nations, 2015), “Industry, Innovation and Infrastructure”, aims to build resilient infrastructure, promote sustainable industrialization, and foster innovation to create jobs, prosperity, and environmental stability. Key targets include upgrading industries, increasing R&D spending, improving access to technology (particularly in LDCs), and expanding digital connectivity by 2030. Which one of its highlights is on “Innovation and Technology upgrading technological capabilities of a government entity, whilst is the SDG 11 aimed at making the cities inclusive, safe, resilient, and sustainable by 2030.

In the Philippines, the push for digital transformation in local governance has been accelerated by the pandemic and the government’s focus on improving public service delivery. The Department of Finance (DOF, 2023) has released several memoranda and circulars promoting the adoption of electronic payment systems and digital financial management tools in local government units (LGUs). Recent reports from the Commission on Audit (COA, 2022) have also highlighted the importance of strengthening internal controls and improving financial transparency in local treasury operations. COA reports have consistently emphasized the need for LGUs to improve their compliance with financial reporting standards and to enhance their capacity for revenue mobilization. Furthermore, challenges associated with the Mandanas-Garcia ruling of the Philippine Institute for Development Studies (Orbeta et al., 2021) have explored the challenges and opportunities associated with the implementation of the Mandanas-Garcia ruling, which has significantly increased the financial resources of LGUs. These studies highlight the need for capacity building and technical assistance to ensure that LGUs can effectively manage their expanded fiscal responsibilities. This focus on local empowerment and fiscal responsibility

is paramount within the national context.”

Moreover, the Philippines has continued to grapple with the impacts of climate change and natural disasters, necessitating a strong focus on disaster resilience in local financial management. The National Disaster Risk Reduction and Management Council (NDRRMC, 2023) has released updated guidelines on disaster preparedness and response, emphasizing the importance of integrating disaster risk reduction into local development plans. Reports from the Department of the Interior and Local Government (DILG, 2024) have also highlighted the need for LGUs to develop robust contingency plans for treasury operations in the event of disasters. Recent studies from the Asian Development Bank (ADB, 2022) on climate finance in the Philippines have underscored the importance of leveraging innovative financial mechanisms to support local adaptation and resilience efforts. These national initiatives provide a critical backdrop for understanding the specific challenges and opportunities faced by local treasuries in the Bicol Region.”

In the Bicol Region, recent studies have focused on the impact of climate change and the need for improved local financial management in the face of frequent natural disasters. Reports from the Bicol Regional Development Council (RDC, 2023) have highlighted the region’s vulnerability to typhoons and the need for enhanced disaster preparedness and response mechanisms. Local research from Bicol University’s College of Social Sciences and Philosophy, (2022), has focused on the economic impact of recent typhoons, and the ability of local government units to recover financially. These studies emphasize the need for LGUs to strengthen their financial resilience and to develop robust contingency plans for treasury operations. The Department of Information and Communications Technology (DICT) regional office has also been actively promoting the adoption of digital technologies in local governance, including the implementation of online payment systems and digital record-keeping. Recent data from the Philippine Statistics Authority (PSA) Region V (2023) shows the economic recovery of the region, and how local treasury operations are important to that recovery.”

Furthermore, recent initiatives by the DILG Region V (2021-2023) have focused on capacity building and technical assistance for local treasuries, particularly in the areas of revenue generation and financial management. Local workshops and training programs have been conducted to enhance the skills and knowledge of treasury personnel. Recent case studies of Albay and Naga City, presented at regional local governance forums (2022-2023), highlighted best practices in implementing digital treasury solutions and improving financial transparency. These local efforts underscore the region’s commitment

to modernizing its treasury operations and to building resilient local financial systems. The information from these local reports and studies will be essential for creating a study that is current and applicable to the Bicol Region.”

FRAMEWORK

The study is anchored on the different theories addressing the objectives of the study. For objective 1, used the Bureaucratic Theory and Good Governance Theory. This theory emphasized as the foundation of any public office. It is a formal system of organization based on hierarchy ((from the BLGF/Provincial Treasurer down to city clerks), fixed rules (COA regulations, Local Government Code), and specialization. For objective 2, the Diffusion of Innovation Theory and Organizational Change Theory, is strategic because it allows to look into the challenges not as just a problem, but as barriers to progress. And diffusion of innovation theory as it used to identify why innovative strategies are being resisted or failing to spread (Rogers et al., 2014). While Organizational change theory was used to categorize challenges as restraining forces that pushes against the driving forces of modernization, and for objective number 3, are the Policy Analysis Theories and Public Finance Theory were used to determine not only if a strategy is being implemented, but whether it is actually effective, sustainable, and fiscally sound for the cities of Legazpi, Ligao, and Tabaco.

Bureaucratic Theory by Max Weber, (1922) provides a foundational understanding of the existing organizational structure and its impact on operations. Weber’s theory highlights how hierarchical structures, formalized rules, and division of labor within the local treasury can impact operational efficiency. It helps you analyze if rigid bureaucratic processes hinder innovation, create bottlenecks, or contribute to challenges in management practices. Good Governance (World Bank & United Nations, 1990) are essential for assessing the level of transparency, accountability, and participation, which are core components of effective treasury operations. It provides a framework to assess if the current system promotes or inhibits public trust, and if there are adequate mechanisms for citizen oversight. It can measure how well the local treasury adheres to principles of open government. For the Diffusion of Innovation Theory (Everett Rogers et al., 2014) is absolutely crucial in understanding the adoption to digital transformation and other innovative strategies. It’s vital for understanding how digital transformation and other innovative strategies are adopted in the local treasury. It can identify the factors that facilitate or hinder the uptake of new technologies, and understand the role of local leaders in the process.

On Organizational Change Theory, (Kurt Lewin, 1940) it analyzes the processes and challenges of implementing changes within the local treasury. It helps analyze the difficulties of introducing new policies or technologies into the local treasury. It can explore how resistance to change is managed, and how to foster a culture that embraces innovation. For Policy Analysis Theories by (Harold Lasswell, 1951) this will be the core theoretical framework for developing evidence-based policy recommendations. They are crucial for developing evidence-based policy recommendations to improve local treasury operations. It assesses the feasibility, effectiveness, and potential impact of proposed policy changes. And lastly, Public Finance Theory, (Adam Smith, 1776) also an essential element in ensuring that the policy framework is fiscally sound and contributes to improved financial management. Ensures that the policy framework is fiscally sound and contributes to improved financial management. It analyzes the efficiency of revenue collection, the effectiveness of budget allocation, and the sustainability of fiscal policies.

Figure 1
Theoretical Paradigm



These theories directly address the core concepts and issues outlined in the objectives. It provided strong analytical frameworks for understanding the data and developing meaningful conclusions.

From the viewpoint of the theories based from the study and its objectives, the researcher designs the acronym as researcher's theory such as: ADAPT that represents a philosophy and a practical framework for the local treasury operations in Albay to move beyond static, reactive management and embrace a dynamic, adaptive approach. It recognizes that the financial landscape, technological advancements, and community needs are constantly evolving. Therefore, the

treasury must be agile and responsive to ensure effective resource management and service delivery. The researcher's theory emphasizes that:

Albay's is adaptive to change and emphasizes the local context. ADAPT is not a generic framework; it's specifically designed to address the unique challenges and opportunities within the Province of Albay. This recognizes the local culture, and the local economy.

It is also Dynamic, since it highlights the core principle of adaptability and responsiveness. It means that the treasury should be able to quickly adjust its strategies, policies, and procedures in response to changing conditions. This dynamic capability is very important in an area that is prone to natural disasters.

It's Approach, since it signifies that ADAPT is a comprehensive strategy, encompassing policies, procedures, technologies, and organizational culture. It's a holistic way of thinking about local treasury operations.

And lastly, Public Treasury hence it defines the focus of the framework: the management of public funds. It underscores the importance of transparency, accountability, and responsible stewardship of taxpayer money.

OBJECTIVES OF THE STUDY

This study explored the Innovative Strategies and Challenges in Local Treasury Operations in the Province of Albay. Specifically, aimed to: (1) Explore the current state of local treasury operations, along: a. management practices, b. Human Resource, and c. Use of Technology and Innovation. (2) Identify the challenges encountered in local treasury operations. (3) Assess the innovative strategies in addressing operational and policy-related challenges in local treasury operations, in terms of: a. Digital Transformation and Revenue Enhancement Strategy, b. human Resource Development, c. Transparency and Accountability, d. Policy and Regulatory Innovations, e. Stakeholder Collaboration, f. Disaster Resilience and Risk Management, g. Revenue Enhancement Strategies, and h. Monitoring and Evaluation Mechanisms. (4) Infer if there is no significant agreement among the ranks of the innovative strategies addressing operational and policy-related challenges in Local treasury operations. (5) Propose a policy intervention to enhance the effectiveness and sustainability of innovations in local treasury operations.

METHODOLOGY

Research Design

This study employed a mixed-methods research design to provide a holistic understanding of the complex challenges and opportunities within local treasury operations. By combining quantitative data with qualitative insights from interviews, the design ensures more robust and actionable findings for policy recommendations. This approach allows for the triangulation of data, ensuring that the “boots-on-the-ground” realities of treasury personnel are statistically validated.

Study Site and Respondents

The research was conducted across the three component cities of Albay: Legazpi, Ligao, and Tabaco. These sites were strategically selected to represent the diverse fiscal landscape of the Bicol Region, encompassing varying economic classes and administrative transaction volumes. To ensure maximum data integrity and eliminate sampling error, a census-based approach was employed, involving a total of 71 key personnel distributed among the three cities (Legazpi: 42.25%, Tabaco: 32.39%, and Ligao: 25.35%). These sites were strategically selected to represent the diverse fiscal landscape of the Bicol Region, encompassing varying economic classes and administrative transaction volumes. This comprehensive sampling eliminates sampling error and ensures that the data reflects the diverse perspectives of staff across different hierarchical levels.

Ethical Compliance and Data Privacy

The study adhered to strict ethical protocols and the Data Privacy Act of 2012. A formal authorization was secured from respective Local Chief Executives and the City Treasurers prior to data collection. An informed consent to participants were also carried out but the it was entirely voluntary, with all 71 respondents providing informed consent engagement. Respondents were guaranteed total confidentiality. All data was anonymized and used exclusively for academic purposes and the data development of the proposed ARTM policy framework.

Research Instrument and Validation

A researcher-made survey instrument was developed, specifically aligned with the variables of the ADAPT Framework. To ensure reliability and academic rigor, the instrument underwent a thorough validation process by a research adviser and a defense committee. The final tool utilized a 4-point Likert scale to measure perceptions of operational challenges and the effectiveness of innovative

strategies, ensuring that all data collected was technically accurate and aligned with the study's objectives.

Data Collection and Ethical Considerations

Data collection followed strict ethical protocols and the Data Privacy Act of 2012. Formal permission was secured from the respective Local Chief Executives and City Treasurers before engagement. The researcher observed the protocol of informed consent, ensuring that all 71 respondents participated voluntarily. Participants were assured of total confidentiality, with their responses used exclusively for academic purposes and the formulation of the proposed ARTM policy framework.

Data Analysis Plan

To process the collected information, the study utilized a three-tiered statistical approach:

For Descriptive Statistics: Frequency distributions, percentages, and Weighted Means were used to describe the current state and assess innovative strategies. While, Inferential Statistics: The Kendall Coefficient of Concordance (W) was employed to determine the significance of agreement among respondents regarding the rank-order of perceived problems and proposed measures. Qualitative Synthesis: Thematic analysis was applied to interview transcripts to contextualize the quantitative findings and identify specific procedural bottlenecks.

RESULTS AND DISCUSSION

Part I. Current State of Local Treasury operations

The local treasury operations in the Province of Albay operate under a structured institutional hierarchy, with the Provincial, City, and Municipal Treasurers functioning under the administrative and technical supervision of the Bureau of Local Government Finance (BLGF). As a specialized agency of the Department of Finance, the BLGF establishes the regulatory framework and professional standards necessary to ensure that local fiscal operations align with national financial policies. While the cities of Legazpi, Ligao, and Tabaco share adherence to these national mandates, they exhibit variances in their readiness regarding human resources and technological integration.

a. Management Practices: The Fiduciary-Operational Paradox

Current management practices are defined by a “fiduciary-operational

paradox,” wherein high regulatory compliance is maintained despite significant manual inefficiencies. Approximately 65% of key treasury functions, such as tax assessments and payment processing, remain manual, creating “operational bottlenecks” where the speed of revenue collection is limited by physical labor rather than system capacity. This “legacy-dependent” style necessitates a multi-tiered review process involving accountants and internal auditors to ensure data integrity for the Commission on Audit (COA). Such “administrative resilience”—maintaining fiscal credibility through strict adherence to auditing standards despite outdated technology—aligns with the findings of Diokno (2012). Furthermore, these layered internal audit safeguards act as essential management “guardrails” that prevent the mismanagement of public funds during peak fiscal periods, a concept supported by Dressel (2012)

b. Human Resources: The Technological Plateau

The workforce currently experiences a “technological plateau,” characterized by a pressing skill gap in digital financial management and data analytics. While personnel are proficient in traditional accounting, only 8 to 10 staff members out of a workforce of 80 possess formal training in IT or digital financial systems. This shortage creates a service bottleneck, as the existing staff is overstretched trying to manage both manual archives and new digital platforms. To fully leverage e-payment systems, the province requires a strategic augmentation of at least 15 to 20 additional personnel with specialized technical skills. This need for continuous human capital investment to prevent “technological lag” and employee burnout is emphasized by Irmawati (2025), while Hamdy et al. (2025) argue that the quality of any accounting information system is fundamentally dependent on the operational readiness of its staff.

c. Use of Technology: Hybrid Vulnerability

Albay’s technological landscape reveals a state of “hybrid vulnerability,” where the adoption of electronic payment platforms is undermined by a continued reliance on manual input for the majority of assessments. This creates a “bottleneck effect” where the speed of digital collection is negated by the slowness of manual validation. Additionally, the office faces challenges in sustaining “digital continuity” due to technical failures and unstable internet connectivity, which disrupt critical financial systems approximately once or twice a month. This situation illustrates the “Infrastructure-Capability Gap” identified by Hamdy et al. (2025), who posit that digital software remains underutilized without robust physical hardware and power redundancy. Finally, as noted by Cuenca (2020), these infrastructure challenges often reflect “geographic digital

divides,” where provincial modernization remains inconsistent across peripheral or satellite offices.

Part II. Challenges Encountered in Local Treasury Operations

Managing local treasury operations involves a complex balancing act between maximizing revenue collection and ensuring rigorous fund management through risk mitigation. The transition from traditional to technological approaches has introduced significant friction, as treasurers must manage immediate community survival alongside technical modernization. Data analysis reveals a nuanced landscape of operational hurdles across the three cities, with a notable disparity in how these challenges are perceived.

Geographic Disparity in Operational Challenges

The study identifies a significant variance in the intensity of challenges faced by each locale. Tabaco City is the most significantly impacted, reporting the highest level of challenges (AWM 2.94), followed by Legazpi City (AWM 2.74). In contrast, Ligao City demonstrates a more streamlined model with the lowest perceived hurdles (AWM 2.23). These findings suggest that while all three cities operate under the same national mandates, local factors—such as transaction volume and administrative efficiency—dictate the severity of operational friction.

2. Core-Infrastructure and Systemic Bottlenecks

The primary hurdles identified across the cities are internal rather than environmental. Specifically, the lack of up-to-date training and outdated technology outweigh external coordination issues. In Legazpi and Tabaco, the administrative burden is compounded by a systemic failure to integrate automated Integrated Financial Management Information Systems (IFMIS), which are the global standard for mitigating clerical errors. This core-infrastructure bottleneck implies that the stagnation of human capital and technical resources, amidst increasing transaction volumes, is the primary threat to treasury efficiency.

Political and Environmental Vulnerabilities

The study highlights significant external pressures, particularly in Tabaco, where political influence (AWM 3.24) emerged as a substantial hurdle. This aligns with the research of Busscher et al. (2024), who argue that the “politicization of the purse” in developing administrative environments can undermine the technocratic objectivity required for effective tax collection. Furthermore, while disaster financial response was ranked as a lower daily challenge (AWM 2.35), the findings suggest a state of “latent vulnerability”. As posited by Doytch (2022), treasury offices preoccupied with high daily transaction volumes often lack the

“fiscal space” to handle sudden economic or environmental shocks, potentially compromising long-term resilience.

Part III. Assessment of Innovative Strategies

The operational challenges in Albay have catalyzed a shift toward a modern fiscal ecosystem, where innovation is treated as a necessary survival mechanism to ensure institutional integrity. The assessment of these strategies across eight key variables reveals a high provincial consensus (Grand AWM 3.43) on the necessity of moving toward a proactive, technology-driven model.

Digital Transformation and Technical Modernization

Based on the data from Table 1 and your manuscript findings, here is a consolidated analysis of how these three critical areas—Digital Transformation, Revenue Enhancement, and Monitoring & Evaluation (M&E)—work together across the cities of Legazpi, Ligao, and Tabaco. The strategy for Digital Transformation (1) is viewed as the replacement of slow, manual processes with high-speed, secure financial systems. This regional shift is mandated by the ASEAN Guidelines on Good Regulatory Practices (ASEAN, 2021), which require member states to adopt digitalized and evidence-based administrative frameworks to ensure public sector efficiency. Such transformation is closely linked to Revenue Enhancement Strategies (2), where the use of technology-driven enforcement and the exploration of non-traditional revenue sources aim to reduce dependence on national tax allotments. These efforts are supported by Monitoring and Evaluation Mechanisms (3), which utilize automated tools and KPIs to create a “self-correcting” system that ensures long-term sustainability regardless of political cycles. This commitment to sustainability and institutional resilience is a cornerstone of the ASEAN 2045: Our Shared Future vision, which advocates for innovative governance structures to navigate future economic and climate-related volatility (ASEAN, 2025). These findings align with Hamdy et al. (2025), who emphasize that digital success is dependent on robust “quality monitoring,” and Irmawati (2025), who note that such systems alleviate the “clerical burden” on staff.

Table 1
Digital Transformation and Technical Modernization

Digital Transformation	Legazpi			Ligao			Tabaco			WM	INT
	WM	INT	R	WM	INT	R	WM	INT	R		
1. Implementing digital platforms for revenue collection (e.g., online payments).	3.90	SA	1	3.56	SA	1	3.13	A	2	3.53	SA
2. Automating financial reporting and analysis processes.	3.64	SA	2	3.44	SA	3	3.13	A	2	3.40	SA
3. Utilizing digital record-keeping and management systems.	3.46	SA	3	3.49	SA	2	3.13	A	2	3.36	SA
AWM	3.67	SA		3.48	SA		3.13	A		3.43	SA
Revenue Enhancement Strategies	WM	INT	R	WM	INT	R	WM	INT	R	WM	INT
1. Improving tax collection efficiency through technology.	3.63	SA	2.5	3.55	SA	2	3.78	SA	2	3.65	SA
2. Exploring new and diversified sources of local revenue.	3.67	SA	1	3.55	SA	2	3.78	SA	2	3.67	SA
3. Strengthening enforcement of existing revenue ordinances.	3.63	SA	2.5	3.55	SA	2	3.78	SA	2	3.65	SA
AWM	3.64	SA		3.55	SA		3.78	SA		3.66	SA
Monitoring and Evaluations Mechanisms	WM	INT	R	WM	INT	R	WM	INT	R	WM	INT
1. Implementing performance indicators for treasury operations.	3.50	SA	3	3.33	SA	2	3.52	SA	2	3.45	SA
2. Conducting regular internal and external audits.	3.60	SA	2	3.33	SA	2	3.52	SA	2	3.48	SA
3. Utilizing data analytics to track performance and identify areas for improvement.	3.70	SA	1	3.33	SA	2	3.52	SA	2	3.52	SA
AWM	3.60	SA		3.33	SA		3.52	SA		3.48	SA

Legend: 3.26 – 4.00 – Strongly Agree (SA) 2.51 – 3.25 – Agree (A)
1.76 – 2.50 – Disagree (DA) 1.00 – 1.75 – Strongly Disagree (SDA)

Human Capital and Governance Standards

To support these technical shifts, Human Resource Development (4) focuses on bridging the 90% IT skill gap through specialized training and recruitment. This push for professionalization is a direct response to the ASEAN 2045: Our Shared Future vision, which advocates for “resilient and innovative” governance structures to navigate future economic volatility (ASEAN, 2025). As shown in Table 2, Tabaco leads this domain (AWM 3.66), emphasizing mentorship and skill development as foundational to institutional progress.

Furthermore, maintaining Transparency and Accountability (5), standards is critical, as rigorous internal and external audits serve as the primary deterrent against the “politicization” of treasury functions, a concept supported by Busscher et al. (2024) and it aligned with regional expectations reinforced by the ASEAN Guidelines on Good Regulatory Practices (ASEAN, 2021), which mandate that member states adopt digitalized, transparent, and evidence-based administrative frameworks to ensure public sector efficiency. Legazpi’s focus on stricter internal controls (WM 3.47) reflects this commitment to administrative credibility. For the Policy and Regulatory Innovations (6) seek to anchor these digital and administrative reforms into local law, ensuring that modernization remains a legal mandate rather than a temporary administrative choice. This proactive policy-making aligns with ASEAN’s (2021) directive for member states to utilize “Good Regulatory Practices” to foster long-term fiscal health and institutional stability.

Table 2
Human Capital and Governance Standards

Human Resource Development	Legazpi			Ligao			Tabaco					
	WM	INT	R	WM	INT	R	WM	INT	R	WM	INT	R
1. Providing specialized training programs for treasury staff.	3.53	SA	2	3.38	SA	2	3.50	SA	3	3.47	SA	
2. Implementing mentorship and skills development initiatives	3.47	SA	3	3.38	SA	2	3.74	SA	1.5	3.53	SA	
3. Enhancing employee motivation and job satisfaction	3.54	SA	1	3.38	SA	2	3.74	SA	1.5	3.55	SA	
AWM	3.51	SA		3.38	SA		3.66	SA		3.52	SA	
Transparency and Accountability	WM	INT	R	WM	INT	R	WM	INT	R	WM	AI	
1. Publicly disclosing financial information through online portals.	3.33	SA	3	3.10	A	3	3.52	SA	2.5	3.32	SA	
2. Implementing stricter internal control measures.	3.47	SA	1	3.16	A	1.5	3.52	SA	2.5	3.38	SA	
3. Establishing independent audit mechanisms.	3.43	SA	2	3.16	A	1.5	3.56	SA	1	3.38	SA	
AWM	3.41	SA		3.14	A		3.53	SA		3.36	SA	
Policy and Regulatory Innovations	WM	INT	R	WM	INT	R	WM	INT	R	WM	AI	
1. Updating and aligning Local Revenue Codes and fiscal ordinances with national mandates and economic shifts.	3.65	SA	2	3.20	A	2.5	3.45	SA	1.5	3.43	SA	
2. Institutionalizing E-Governance and Disaster Risk Financing through formal local legislative frameworks	3.63	SA	1	3.33	SA	1	3.45	SA	1.5	3.47	SA	
3. Adopting policy-driven internal audit protocols and tax incentives to enhance accountability and compliance.	3.55	SA	3	3.20	A	2.5	3.48	SA	3	3.41	SA	
AWM	3.61	SA		3.24	SA		3.46	SA		3.44	SA	

Resilience and External Collaboration

Given the region’s high environmental vulnerability, Disaster Resilience and Risk Management (7) is identified as high-priority innovation, with specific focus

on establishing clear protocols for financial management during emergencies (AWM 3.51). This local prioritization directly supports the ASEAN 2045: Our Shared Future vision, which advocates for “resilient and innovative” governance structures capable of navigating economic and climate-related volatility. Furthermore, the move toward resilient digital backups and contingency planning aligns with the United Nations Office for Disaster Risk Reduction [UNDRR] (2023), which emphasizes integrating disaster risk financing into local public finance management to ensure operational continuity during crises. This is particularly vital in Albay, where frequent natural disasters necessitate what UNDESA (2023) describes as “resilient local financial systems” capable of withstanding external shocks.

Lastly, Stakeholder Collaboration (8) emphasizes the value of partnerships with national agencies and civil society for technical assistance and fiscal transparency. This collaborative approach is a core element of the ASEAN Guidelines on Good Regulatory Practices (ASEAN, 2021), which mandate that member states adopt transparent and evidence-based administrative frameworks to ensure public sector efficiency. By engaging with external partners, local treasuries ensure they are not modernizing in isolation, a practice that World Bank (2022) reports on public sector modernization identify as essential for successful knowledge exchange and innovation. Collectively, these variables form an integrated approach to “administrative resilience,” as theorized by Diokno (2012), where local governments utilize collaborative networks and key performance indicators (KPIs) to sustain the impact of fiscal decentralization. This institutional alignment effectively provides the “fiduciary guardrails” necessary to protect modernization efforts from the external pressures of political cycles.

Table 3
Resilience and External Collaboration

Disaster Resilience and Risk Management	Legazpi			Ligao			Tabaco					
	WM	INT	R	WM	INT	R	WM	INT	R	WM	INT	
1. Developing financial contingency plans for disaster response	3.60	SA	2	3.33	SA	1	3.30	SA	3	3.41		SA
2. Investing in infrastructure that is resilient to disasters.	3.53	SA	3	3.22	A	2.5	3.65	SA	2	3.47		SA
3. Establishing clear protocols for financial management during emergencies	3.63	SA	1	3.22	A	2.5	3.69	SA	1	3.51		SA
AWM	3.59	SA		3.26	SA		3.55	SA		3.46		SA
Stakeholder Collaboration	WM	INT	R	WM	INT	R	WM	INT	R	WM		INT
1. Enhancing communication and coordination with other LGU departments.	3.57	SA	1	2.88	A	3	3.74	SA	1	3.40		SA
2. Engaging with civil society organizations on fiscal transparency.	3.53	SA	2.5	3.28	SA	2	3.35	SA	2.5	3.39		SA
3. Collaborating with national government agencies for technical assistance.	3.53	SA	2.5	3.38	SA	1	3.35	SA	2.5	3.41		SA
AWM	3.54	SA		3.18	SA		3.48	SA		3.40		SA

Part IV. Significance of Agreement on the Innovative Strategies

The statistical analysis aims to determine if there is a significant difference or a unified consensus among the three cities—Legazpi, Ligao, and Tabaco—concerning the ranking of innovative strategies designed to address local treasury challenges. By testing the Null Hypothesis (H0), which posits that there is no significant agreement among the ranks, the study provides a mathematical basis for the reliability of the strategic priorities identified by the treasury staff.

According to the provided data, the Computed Chi-Square (X²) values for the eight strategic variables range from a low of 0.52 for Revenue Enhancement to a high of 4.34 for Policy and Regulatory Innovations. At a Degree of Freedom (df) of 2, the Tabular X² value (Critical Value) at the 0.05 significance level is

5.991.

In every instance across the eight indicators, the Computed Chi-Square value is lower than the Tabular Chi-Square value. For example, the highest computed value (4.34 for Policy and Regulatory Innovations) still falls below the critical threshold of 5.991. This lack of statistical variance indicates that the differences in the rankings provided by the three cities are negligible and statistically non-significant.

The decision on the Null Hypothesis (H_0) is to Fail to Reject the null hypothesis (or Accept H_0). This implies that the Significance of Agreement is “Not Significant” in terms of variance, which translates to a high and significant level of harmony and consensus among the respondents. The treasury staff across all three LGUs are in unified agreement regarding the prioritization of these innovations, suggesting that a province-wide implementation of these policies would likely meet little resistance and high institutional support.

This high degree of consensus is supported by Cuenca (2020), who suggested that unified strategic perceptions in local governance are a precursor to successful fiscal decentralization in the Philippines. Furthermore, the alignment in ranking reflects what Hamdy et al. (2025) describe as “institutional readiness,” where multiple administrative units demonstrate a shared vision for digital and policy transformation. Finally, the statistical stability of these ranks reinforces the findings of Busscher et al. (2024), asserting that when treasury staff reach a consensus on operational “guardrails,” the resulting policies are more resilient to the external pressures of changing political leadership.

Part 4. A policy intervention to enhance the effectiveness and sustainability of innovations in local treasury operations.

To ensure the sustainability of fiscal innovations in Legazpi, Ligao, and Tabaco, the study proposes the Albay Resilient Treasury Modernization (ARTM) paradigm. This five-pillar cyclical framework transitions temporary administrative fixes into a permanent governance structure by embedding digital, human, and fiscal resilience into local law and operational standards.

Institutionalization of E-Governance and Digital Standards

The first pillar focuses on codifying a “Digital Treasury Roadmap” through local ordinances. By mandating electronic payment and collection systems, local governments ensure that technological advancements remain consistent across changing political administrations. As noted by Hamdy et al. (2025), the long-term success of public sector digital transformation is fundamentally dependent on the quality and stability of the digital infrastructure and its “quality

monitoring” through data analytics.

Revenue Diversification and Enhancement Policy

This intervention addresses the “fiscal space” challenges identified by Doytch (2022). By exploring non-traditional revenue sources—such as public-private partnerships and optimized idle asset management—local units can reduce their over-reliance on national tax allotments. This ensures that the treasury has the financial depth required to handle sudden economic or environmental shocks.

Mandatory Human Resource Development and Technical Augmentation

To bridge the 90% technical skill gap, the policy recommends institutionalizing a competency-based training curriculum. This aligns with Irmawati (2025), who argue that the sustainability of public sector innovation is directly tied to continuous human capital investment. Transitioning from traditional bookkeeping to digital financial management is essential to prevent “technological lag” and employee burnout.

Integration of Disaster Risk Financing and Emergency Protocols

Given Albay’s climate vulnerability, this pillar mandates the integration of disaster risk reduction into local public finance management. By creating pre-approved emergency protocols and resilient digital backups, the province moves from a reactive to a proactive model. This intervention is supported by the United Nations Office for Disaster Risk Reduction [UNDRR] (2023), which advocates for integrating disaster risk strategies into local fiscal frameworks to ensure operational continuity during utility failures or natural disasters.

5. Multi-Stakeholder Oversight and Collaborative Accountability

The final pillar emphasizes “collaborative capacity” by involving Civil Society Organizations (CSOs) and national bodies in the monitoring and evaluation process. This ensures that local autonomy is matched by rigorous accountability, a necessity highlighted by Abas and Cuenca (2020). Furthermore, standardized audit “guardrails” serve as the primary deterrent against the “politicization of the purse,” as maintained by Busscher et al. (2024), thereby safeguarding the technocratic objectivity of the treasury office.

CONCLUSIONS

The local treasury operations in Albay are currently defined by a “fiduciary-operational paradox,” where high regulatory compliance is maintained despite a “Core-Infrastructure Bottleneck” where 65% of functions remain manual and 90%

of the workforce lacks specialized IT competencies. While management ensures strict COA compliance, this hybrid environment suffers from systemic stagnation that neutralizes the benefits of modern e-payment platforms. However, the study confirms a unanimous provincial consensus and high institutional readiness (Grand AWM 3.43) across Legazpi, Ligao, and Tabaco to adopt modernized fiscal strategies. This statistical harmony is a critical indicator of political and operational feasibility, suggesting that a province-wide implementation of the proposed Albay Resilient Treasury Modernization (ARTM) paradigm would face minimal institutional resistance and high stakeholder support.

TRANSLATIONAL RESEARCH

This research on the local treasury operations of Albay is strategically designed for translational impact, serving as a bridge between academic inquiry and transformative public policy. By identifying the “fiduciary-operational paradox”—where strict regulatory compliance is hindered by deep-seated manual bottlenecks—the study moves beyond theoretical observation to provide a knowledge-to-Action (K2A) framework. This research is strategically designed to serve as a bridge between academic inquiry and transformative public policy through a knowledge-to-Action (K2A) framework. By addressing the identified “fiduciary-operational paradox,” the study provides actionable pathways to modernize local treasury operations in Albay. To translate these findings into practice, the study proposes the institutionalization of a “Digital Treasury Roadmap” and a “Competency-Based Training Curriculum,” specifically targeted at bridging the 90% technical skill gap identified in the workforce. Beyond local implementation, the research is formatted for scholarly dissemination and journal publication in fields such as Public Administration, Governance, or Public Finance. By condensing the comprehensive dissertation into a succinct, peer-reviewed manuscript, the findings can reach a global audience, contributing to the broader discourse on fiscal decentralization and the Mandanas-Garcia ruling. This dual-purpose approach ensures that the research does not remain a static academic document but becomes a “living policy tool” that can be published as a benchmark study and adopted by Local Chief Executives to modernize treasury systems, enhance revenue generation, and foster sustainable, technology-driven governance in the Philippines.

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